

Team H

Hasbro, Inc.

Figure 1

Market Date JAN 12th, 2018	
Closing Price	\$92.45
Avg. Daliy Vol (mm)	1.3
Shares O/S (mm)	125
Market Cap (\$mm)	11,515
P/E	19.8x
Enterprise Value(\$mm)	13,556

Source: Bloomberg

Figure 2

Valuation Date JAN 12th, 2018		
Methodology	Weight	Price
DCF	90%	\$ 107.13
EV/EBITDA	10%	\$ 103.61
Current Price		\$ 92.45
1 Year Target Price		\$ 106.78
Upside Return		15.50%
2018 Dividend		\$2.52
Dividend Yield		2.36%
Total Return		18.22%

Source: Team Analysis

Figure 3



Source: Team Analysis, Bloomberg

Figure 4



Source: Bloomberg

Figure 5

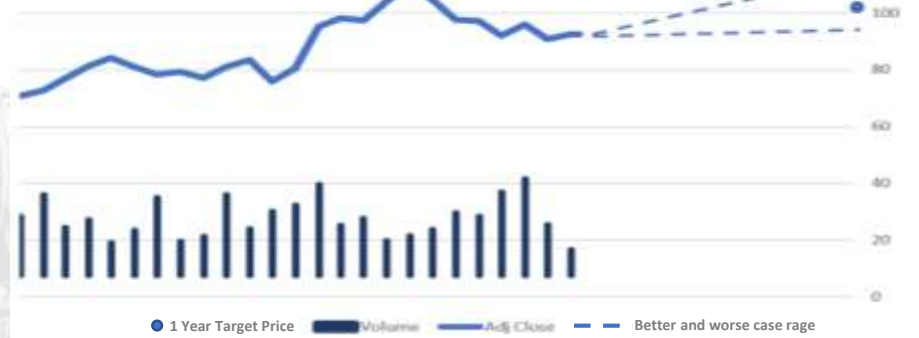
Fundamentals	Industry Median	Hasbro	Investment Grade	Business	Investment Grade
Revenue Growth	8%	7%	Medium	Storytelling Skill	High
Dividend Growth Rate	9%	12%	High	Corporate Strategy	Medium
EPS	1.61	4.64	High	Product Diversification	High
Operating Magrin	10%	15%	High	Brand Awareness	High
EBITDA Margin	15%	18%	High	Management Team	High
ROE	20%	27%	High	IPs Maintenance	High
P/E	24.2	19.8	High	Market Growth	Medium
Dividend Yield	2%	2.45%	Medium	Supply Chain Management	Low

Source: Team Analysis, Bloomberg

DATE: January 12th,2018 TICKER: HAS RECOMMENDATION: BUY
CURRENT PRICE: \$92.45 TARGET PRICE: \$107 INDUSTRY: Toys & Games

EXECUTIVE SUMMARY: Hasbro is a multinational conglomerate, which owns a broad portfolio of toys, games and entertainment & license, including Nerf, Monopoly, Transformers, and My Little Pony, and consistently aims to create the world’s best play experience.

Hasbro Future Price Forecast



HIGHLIGHTS

Our recommendation is **BUY** with a 1-year target price of **\$107** per share, representing **18%** total upside from the \$92.45 closing price on January 12th, 2018. Our valuation is based on a 90/10 mix of the Discounted Cash Flow Valuation and EV/EBITDA Comparable Valuation.

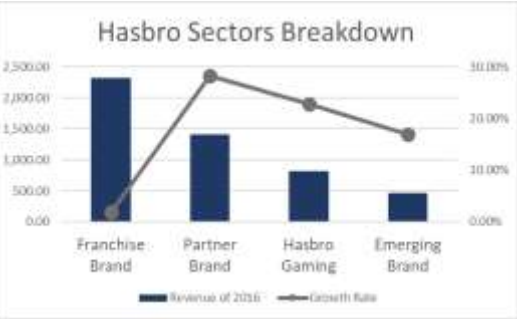
Business Projections

- Successful storytelling, primarily through movies, will continue to enhance sales.
- Hasbro will maintain partnerships with major Intellectual Property (IP) owners such as Disney and Marvel and strengthen its market position by acquiring additional popular IPs.
- Major markets will continue to grow for the next 7 years with YOY growth rates from 2.46% in 2018 to 0.94% in 2024.
- By expanding global markets, Hasbro will execute its storytelling strategy through a broader base and will increase its sales accordingly.
- Product diversification and brand awareness will help Hasbro maintain a sustainable business.

Solid Fundamentals

- High operating margins and EBITDA margin indicate effective corporate management and healthy operations.
- High dividend growth rate shows confidence in Hasbro’s financial status and its willingness to reward its shareholders. We expect dividends to continue to grow at an average of 10% YOY for the next 7 years.
- High EPS and ROE demonstrate Hasbro’s strong potential as a investment.

Figure 6



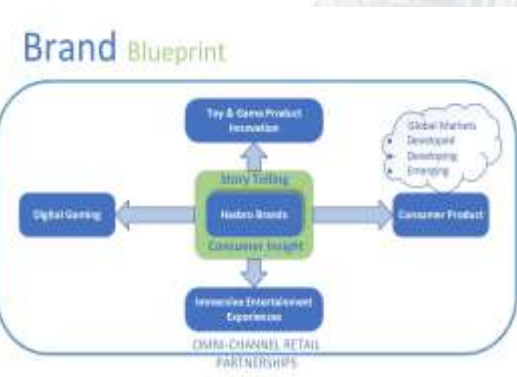
Source: Bloomberg

Figure 7



Source: Bloomberg

Figure 8



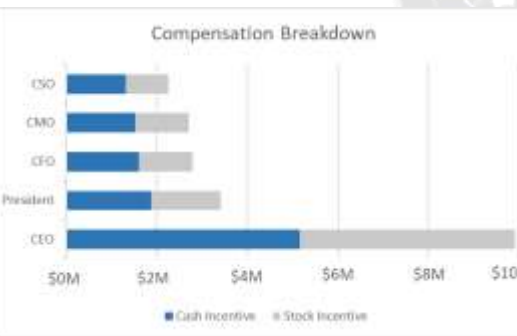
Source: Original

Figure 9

Executive Officers	
Brian D. Goldner	Chairman / CEO
John A. Frascotti	President
Deborah M. Thomas	Executive VP / CFO
Wiebe Tinga	Executive VP / CMO
Rudolph Johnson	Executive VP / CHO
Barbara Finigan	Executive VP / CLO
Duncan J. Billing	Executive VP / CSO
Tom Courtney	Executive VP/Global Operations
Stephen Davis	Executive VP/CCO

Source: Bloomberg

Figure 10



Source: Bloomberg

BUSINESS DESCRIPTION

Hasbro is a worldwide leader in children's and families' leisure time, entertainment products, and services. Hasbro is not limited to just games; it covers all types of entertainment ranging from toys and games to television, movies, and digital gaming. Based on Franchise Brands and Partner Brands, Hasbro offers a set of options covering a wide range of audiences, including Nerf, My Little Pony, Transformers, Play-Doh, Monopoly, Magic: The Gathering, Marvel and Disney Princesses. With the help of the Hasbro Studio and Allspark Pictures, its self-financing/co-financing film unit, and Discovery Communications, Hasbro delivers storytelling products. Through its high-standard of Corporate Social Responsibility and philanthropic commitment, Hasbro has devoted to making the world a better place for children and families.

Hasbro's international operations contributed 49% of net revenues in 2016, growing from 39% in 2010 (Figure 7). In recent years, the company has expanded its operations in the emerging markets of China, Russia, Brazil, Peru, Colombia, South Korea, Romania, and the Czech Republic.

CORPORATE STRATEGY

Storytelling

Hasbro supports its brands with storytelling, leveraging and integrating their products with synergy and value created by stories. In addition, Hasbro takes advantage of all the available platforms and media, providing a variety of digital experiences, music, publishing, location-based entertainment, and an impressive array of consumer products, within a broad range of diverse categories. For example, after scanning the barcode of My Little Pony, consumer has the opportunity to interact with digital forms of traditional games.

Brand Blueprint

Since 2009, Hasbro has applied Brand Blueprint as its core strategy. Hasbro gleans consumer insights, and tells stories through immersive entertainment experiences such as movies and TV series, which become an effective way of extending toy life cycles, strengthening consumer loyalties, and elevating brand awareness. Then, Hasbro uses its omni-channel retail partners to sell toys worldwide. Moreover, Hasbro acquired Backflip Studios in 2013 and created digital games from its franchise characters, such as Transformers, to leverage the digitized trend and capitalize on the opportunity, integrating technology throughout the engagement cycle.

Expanding Our Audience

Expanding Our Audience serves as another core strategy. Hasbro focuses on "growing share of life" by using different methods such as TV, games, music, and theme parks to influence and expand its loyalty base for all ages. Through this strategy, the company formed its own unique culture which could be passed from generation to generation.

CORPORATE MANAGEMENT

The Hasbro executive management team consists of 9 professionals (Figure 9) with an average of 8 years left on their contracts. Each executive has an average of 20 years experience within the company. (See Appendix 28) Brian D. Goldner, the Chairman and CEO is the only executive serving on the board, which suggests board independence. The President has less than one year left on his contract. Based on the history of the roles in Hasbro's management team, considering the prior two CEOs both came from inside the company, we do not anticipate major changes in the near future. Approximately 45% of the compensation of the top management team comes from stock and options (figure 10), offering incentive for better stock performance in the future.

Figure 11

Board of Directors	
Brian D. Goldner	Edward M. Philip
Kenneth A. Bronfin	Linda K. Zecher
Tracy A. Leinbach	Michael Burns
Alan G. Hassenfeld	Crispin H. L. Davis
Lisa Gersh	Mary Beth Stone West
Richard S. Stoddart	Hope F. Cochran

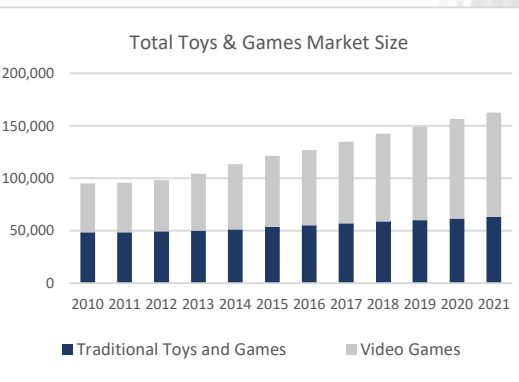
Source: Bloomberg

Figure 12



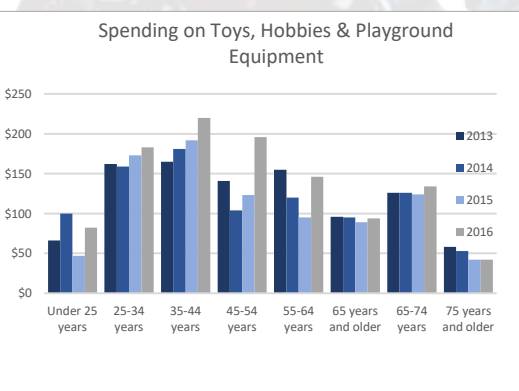
Source: Bloomberg

Figure 13



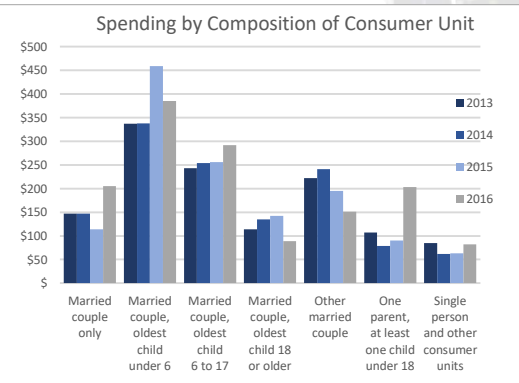
Source: NPD

Figure 14



Source: Bureau of Labor Statistics

Figure 15



Source: Bureau of Labor Statistics

CORPORATE GOVERNANCE

Hasbro has a Board of Directors of 12 members (Figure 11) in 5 different committees: Audit; Compensation; Executive; Finance; and Governance Nominating & Social Responsibility, three more members than its competitor, Mattel, representing a more diversified and comprehensive outlook.

SHAREHOLDER STRUCTURE

Hasbro has 124.56 million shares of common stock outstanding, of which Institutional investors own 95%. The top 5 holders are Vanguard Group (10.44%), BlackRock (8.64%), Alan G. Hassenfeld (6.65%), Capital Group Company (4.96%), and State Street Corp (3.86%). Alan G. Hassenfeld, the third biggest shareholder, is the former chairman and current board member of Hasbro; and the share under his name represents more than his personal holding. According to Hasbro DEF 14A filed on April 4th, 2017, 38.44% of the holding belonged to Hassenfeld Family Initiatives LLC, 52% holding was under Mr. Hassenfeld's name, and 8.5% belongs to Hasenfeld Foundation. The shareholder structure is diversified, with no shareholder holding more than 10.5%. Although the insider holding (Figure 12) is higher compared with its competitor, Mattel, the trend has been decreasing for the past few years. (See appendix 23)

SOCIAL RESPONSIBILITY

Hasbro aims to make safe toys, to protect their workers' rights and safety, to ensure materials are ethically sourced, and to maintain environmental sustainability. In 2016, Hasbro achieved 100% use of renewable energy, realized carbon neutrality, and launched sustainable packaging principles. Hasbro also works closely with regulatory bodies to provide safer products. For eight years Hasbro has not had a single product recall. In addition, Hasbro provides a series of compliance trainings to more than 5,000 employees to help their employees understand their rights. In 2016, with volunteer service from employees, Hasbro impacted 3.8 million children through its charitable programs and helped more than 225,000 youths together with generationOn.

INDUSTRY OVERVIEWS

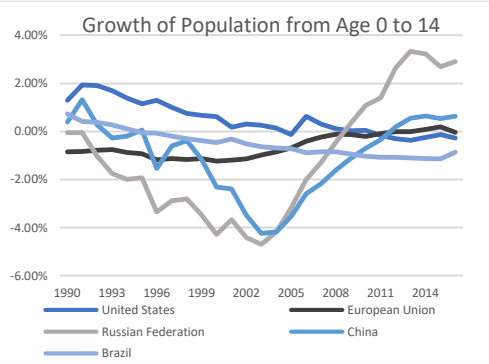
General Trend

In major markets that Hasbro covers, traditional toys & games had a market size of \$55.09 billion in 2016, with a projection of \$63.10 billion in 2021, equivalent to a 2.75% YOY growth. The total toys & games industry was \$126.76 billion in 2016, which is anticipated to expand to \$162.48 billion in 2021, 5.09% YOY growth (Figure 13). The higher growth is ascribed to the fast-developing digital games, with a YOY growth of 6.75% from 2016 to 2021. We anticipate the traditional toys and games industry will continue to expand, but the digital trend will grow at a faster pace. As the absolute leader in industry, Hasbro is in a strong position to take advantage of the expansion in traditional toys and games. (See Appendix 13)

Consumer Behavior

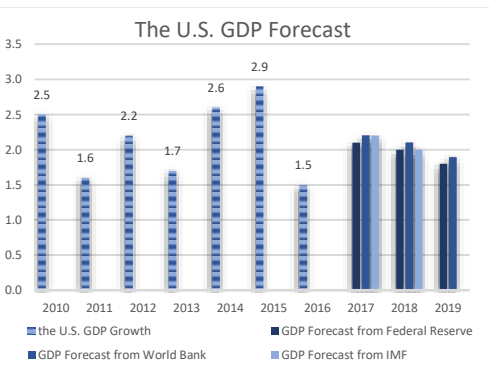
We focused on the U.S. market since it generated 51% of Hasbro's revenue in 2016. Based on the Consumer Expenditure Survey from the Bureau of Labor Statistics (Figure 14), the percentage of toy consumption over annual expenditures falls in the range of 0.11% to 0.35% among different age segments. Although it represents a small percentage of personal income, it indicates a steady growth in major population groups (population ages 25-34 and 35-44). Married couples with children from ages 0 to 17, the major consumers in the industry, showed an annual average spending of \$385 in 2016 (Figure 15). We expect the future expenditure in toys will grow slightly along with an increase in personal income, especially with Hasbro's Expanding Our Audience strategy which should help the company win a broader audience.

Figure 16



Source: World Bank

Figure 17



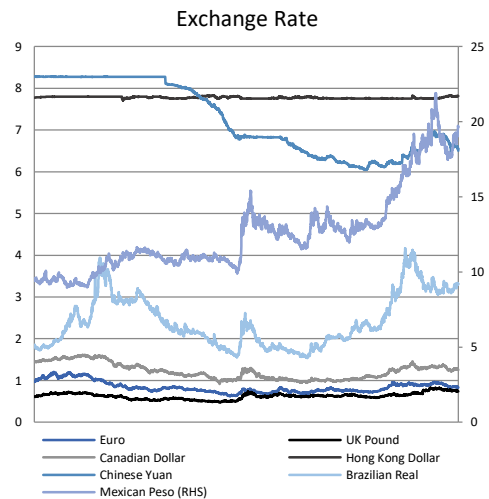
Source: Federal Reserve, World Bank, IMF

Figure 18



Source: World Bank

Figure 19



Source: Federal Reserve

Demographic Shift

Emerging markets have enjoyed more robust growth in 0-14 years old population (Figure 16). Even though majority of birth rates decreased except for that in Russia, population growth represents an opportunity for Hasbro to grow its revenue. Take China as an example; due to the impact of the one-child policy, the population between age 0-14 years old decreased drastically in the 90s. However after the termination of the policy the population from age 0-14 gradually increased. With a higher population of target customers in these markets, the toys and games industry should achieve more growth.

Volatile Performance in Different Brands

Even though people have become more reliant on digital devices, the demand for traditional games and puzzles grew a 12% growth in 2016, showing increased demand for face-to-face play experience. (See Appendix 13) Although we predicted the revenue of the whole brands portfolio, the sub brands can also be volatile due to different popular trend and consumer taste shifts.

MACRO ECONOMY PROJECTION

U.S. Economy

U.S. economic growth remained strong in the third quarter of 2017, realizing 3% growth. On December 13th, the Federal Reserve raised the benchmark rate by 0.25%, the third increase in 2017, signaling healthy growth in the economy. Economic projections from the Federal Reserve Board members and Federal Reserve Bank presidents, we expect the expansion remain at or slow to 1.8% (Figure 17) in 2019. Moreover, forecasts from World Bank and International Monetary Fund also indicate a similar sentiment. Consumer products, toys and games may be adversely affected by the slowing GDP growth. (See Appendix 14).

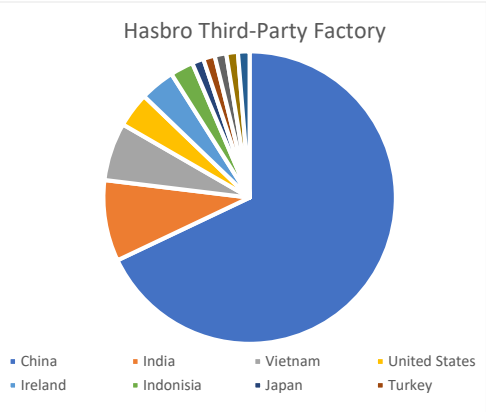
International Economy

The European economy has been stable for the past few years with a slight decrease recently. With Brexit, a bigger decrease is expected in the future. The Russian economy has been suffering from the sagging crude oil prices. Combined with sanctions and the falling ruble, the economy worsened further. Latin America is facing corruption, unrelenting violence, and instabilities in its political system. With three presidential elections on the horizon in most the populous countries, Colombia, Mexico and Brazil in 2018, the future economy may become more volatile. The Chinese economy has been accelerating for a decade, but it may fall into the middle-income trap (Figure 18). We do not anticipate this will have an immediate effect, but perhaps a more slowed growth in the Chinese economy.

Exchange Rate

From January 2000 to December 2017, the majority of currencies in Hasbro's markets depreciated (Figure 19), except for the Hong Kong Dollar, with only a slight depreciation of 0.47%, and the Chinese Yuan, with an appreciation of 27.26%. With most of the suppliers located in China, the rising local currency put pressure on the costs of Hasbro. But an appreciation in local currency would have the effect of boosting repatriation in USD. Therefore, it will be a good opportunity to continue to expand in the Chinese market. As for other markets, we expect less favorable exchange rates. We anticipate there will be some loss due to exchange rates in other comprehensive income unless Hasbro adjusts the distribution in the respective markets.

Figure 20



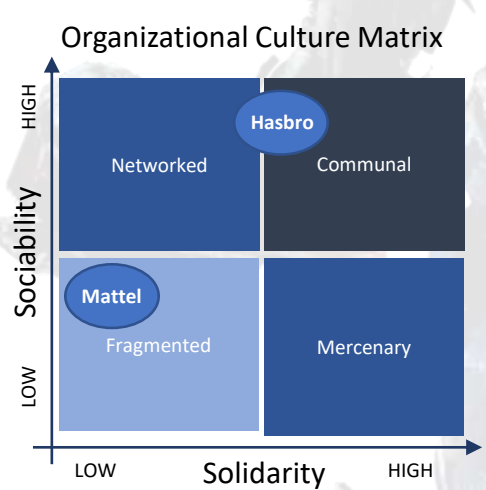
Source: Hasbro Official Website

Figure 21



Source: Team Analysis

Figure 22



Source: Team Analysis

Figure 23

Assessment	Profitability	Growth	Financial Safety	Brand Awareness	Efficiency	Employee Satisfaction	Weighted Average
Hasbro	4	3	4	4	1	4	3.35
Mattel	1	2	3	3	5	3	2.7
LEGO	5	5	5	5	4	5	4.85
Jakks	1	1	2	1	2	1	1.25
Weight	20%	20%	10%	20%	15%	15%	100%

Source: Team Analysis

SUPPLIERS & RETAILERS

Retailers

The largest three retailers of Hasbro are Walmart, Target and Toys “R” Us, which contribute around 62% of the net revenues in the U.S. and Canada, and 18%, 9% and 9% respectively in its global net revenues. Due to the high concentration, any issues to one of the major customers will significantly impact Hasbro.

Suppliers

Based on Hasbro’s Third-Party Factory List in 2016, the majority of suppliers are located in China (Figure 20) due to its cheaper labor costs. Because of the appreciation in local currency and increasing labor costs, the company will move 30% of the production in China to suppliers in other countries such as India and Indonesia. The trend of “moving to India” has already begun with several of Hasbro’s suppliers making moves.

HASBRO COMPETITIVE POSITION

The toys & games industry (Figure 21) is characterized by a strong rivalry among existing competitors. As one of the largest players in the U.S., Hasbro sustains an unyielding competitive position. Even though strong competition exists in this industry, consumers and suppliers have less bargaining power due to exclusive IPs and excess number of suppliers respectively. In addition, the threat from new entrants is low due to high competition and regulations, and the high threat of the substitutes makes this industry even less appealing. (See Appendix 7)

HASBRO vs. MATTEL

Both companies overall have similar product lines. For instance, on the manufacturing side both produce most of the physical toys for movies and story franchises such as Hasbro’s Star Wars and Transformers toys, and Mattel’s Jurassic Park, and Batman vs Superman toys. Moreover, Mattel began to replicate Hasbro’s storytelling and entertainment success by promoting and producing movies like Barbie, which is scheduled to be released by August 2018. This shift in strategy will increase the production of films targeting kids. In 2017, the entertainment industry released 30 children's movies establishing a new record. (See Appendix 19)

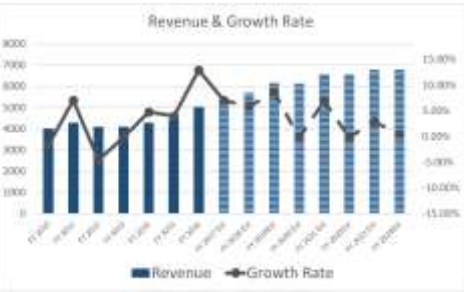
Hasbro’s culture has been stable; it involves a communal environment (Figure 22), where people are able to freely act and feel comfortable when interacting with their peers. This culture has fostered more genuine and collaborative relationships. This approach will help Hasbro become more productive in the long term. On the other hand, Mattel’s culture has been adversely effected by all the changes in its leadership team, which has produced a lot of resentment and fragmentation within the departments and employees. Many of the employees feel that they are being forced to adopt different cultures every time a reorganization occurs.

HASBRO vs. COMPETITORS

In the U.S. toys & games market, Hasbro has three major competitors, Mattel, Lego, and Jakks Pacific. In comparing characteristics listed in Figure 23, Lego has a leading advantage over the other three competitors. Hasbro struggles in managing efficiency due to overseas manufacturing and inadequate supply chain management. In addition, both Hasbro and LEGO have absolute leading positions in their respective growth and profitability, while others are weak in these aspects. From our survey (See Appendix 8),

we see that Lego and Hasbro have the #1 and #2 brand awareness among all toy manufacturers. As one of the leading players in the industry, Hasbro can use these advantages to generate more profits compared to Mattel and Jakks. (See Appendix 17)

Figure 24



Source: Team Analysis, Bloomberg

Figure 25



Source: Team Analysis, Bloomberg

Figure 25



Source: Bloomberg

Figure 26

Institutions' Recommendations		
Buy	52.90%	9
Hold	47.10%	8
Sell	0.00%	0
Avg. 12M Tgt Px	\$ 105.54	
Current Price	\$ 92.45	

Source: Bloomberg

Figure 27



Source: NPD, Team Analysis

Figure 28

Revenue Breakdown	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Revenue	5019.822	5371.16	5681.83	6170.13	6158.60	6579.97	6568.23	6757.11	6787.76
Growth Rate	12.87%	7.00%	5.78%	8.59%	-0.19%	6.84%	-0.18%	2.88%	0.45%
Franchise Brands	2327.668	2556.86	2480.16	2628.97	2523.81	2650.00	2517.50	2618.20	2539.65
Growth Rate	1.85%	9.85%	-3.00%	6.00%	-4.00%	5.00%	-5.00%	4.00%	-3.00%
Partner Brands	1412.77	1340.15	1407.16	1547.87	1470.48	1573.41	1557.68	1573.25	1620.45
Growth Rate	28.28%	-5.14%	5.00%	10.00%	-5.00%	7.00%	-1.00%	1.00%	3.00%
Hasbro Gaming	813.433	979.54	1155.85	1335.01	1508.56	1666.96	1800.31	1899.33	1956.31
Growth Rate	22.82%	20.42%	18.00%	15.50%	13.00%	10.50%	8.00%	5.50%	3.00%
Emerging Brands	465.951	494.61	502.03	512.07	524.88	540.62	559.54	581.93	608.11
Growth Rate	16.93%	6.15%	1.50%	2.00%	2.50%	3.00%	3.50%	4.00%	4.50%
Hasbro's Major Market Growth Rate		2.87%	2.46%	2.43%	2.17%	2.32%	2.07%	1.26%	0.94%

Source: Team Analysis, Bloomberg

INVESTMENT SUMMARY

Our recommendation is **BUY** with a 1-year target price of **\$107** per share, which is based on a 90/10 mix of the Discounted Cash Flow Valuation and EV/EBITDA Comparable Valuation.

Revenue Drivers

First, successful storytelling through movies such as the Transformers and My Little Pony will help Hasbro boost brand awareness. Second, by acquiring new IPs in the future, similar to Hasbro's past acquisitions of Yo-Kai Watch, Beyblade, and Frozen, Hasbro will increase future revenue. Third, Hasbro's major markets are expected to have continuous positive growth for the next 7 years from 2.46% in 2018 to 0.94% in 2024. Lastly, Hasbro is expanding in emerging markets. In November 2016 Hasbro partnered with Tmall, which increased Transformers' YOY growth by 47% on a single day; there is potential for Hasbro to grow in other emerging markets.

Stock Price Drivers

Based on historic analysis, Hasbro's stock price is 53% correlated to its revenue. In combination with our projections for Hasbro's revenues for the next 7 years, we believe the stock price will rise in concert with revenue. Furthermore, we expect dividends will continue growing at an average of 10% YOY for the next 7 years (Figure 25) driven by revenue growth and additional benefits from tax-reform.

MARKET PERSPECTIVE OF THE STOCK

From historical data of the 1-year target price of analysts following Hasbro, we can see that these analysts have had a conservative perspective on the Hasbro 12month target stock price. (Figure 25) From 2014 to 2017. These analysts averaged a 1-year target price of about 14% lower than the 1-year actual price. Today, the 17 analysts issue an average target price of \$105.54 (Figure 26), which is higher than the current price of \$92.45.

DCF VALUATION

DCF valuation method consists of a two-stage growth model. The first phase is based on individual year to year forecasts up to 2024 and the second phase is terminal value based on a long term growth of 2.63%. Based on our DCF analysis, the estimated 1 year target price is \$107. (See Appendix 4)

REVENUE GROWTH PROJECTION

We found three main revenue drivers: the Transformers movies and partner brand movies, new IP acquisitions, and Hasbro's growth in major markets. We anticipate revenue will keep growing for the next 7 years primarily due to the following reasons: 1) the release of future Transformers movies in 2019, 2021, and 2023, and other partner movies such as Avengers: Infinity War in 2018 and Frozen 2 in 2019; 2) acquisitions of new IPs, similar to Frozen and Beyblade; and, 3) Hasbro's major markets should see continuous positive growth of 2.46% in 2018 to 0.94% growth in 2024 (Figure 27). We believe that Hasbro's major traditional toys & games business will be negatively impacted by the strong digital game market growth.

We calculated the final revenue (Figure 28) by adjusting the market growth rate in accordance to the movie releases and potential new IPs as shown in detail in Appendix 9.

Figure 29

Year	2018-2019	2020-2024
Freight	-3.24%	-1.00%
Paper	0.11%	0.10%
Labor	8.67%	-5.00%
Plastics	3.00%	0.00%
Electronic Device	-1.34%	0.05%
COGS Growth Rate	1.36%	-0.32%

Source: Team Analysis, Bloomberg

Figure 30

Cost of Equity	7.85%
2 - Stage Dividend Growth Model	7.20%
CAPM	8.51%
Cost of Debt	4.51%
Average Bond Yield After Tax	2.79%
Interes Over Long-Term Debt	6.22%
Market Cap \$mm	11,515
Long-Term Debt \$mm	1,875.3
Tax Rate	22.78%
WACC	7.44%

Source: Team Analysis, Bloomberg

Figure 31



Source: Team Analysis

Figure 32

Company	Adjusted EV	EBITDA T12M	EV/EBITDA	Implied Price
Median	5508.52	571.37	9.64	\$72.01
Hasbro	12110.31	996.46	12.15	\$92.11
Mattel	7919.31	484.66	16.34	\$125.60
Tommy	1430.64	188.53	7.59	\$55.59
Bandai	5508.52	746.05	7.38	\$53.95
Spin Master	4417.61	255.23	17.31	\$133.35
Alpha Group	3145.79	326.00	9.65	\$72.08
Goldlok Toys	805.68	32.60	24.71	\$192.60
Average	5048.27	432.79	13.59	\$103.61

Source: Team Analysis, Bloomberg

Figure 33

Revenue Breakdown	FY 2014	FY 2015	FY 2016	FY 2017
Revenue	4277.21	4447.51	5019.82	5371.16
Growth rate	4.78%	3.98%	12.87%	7.00%
Franchise Brands	2345.13	2285.41	2327.67	2556.86
Growth rate		-2.55%	1.85%	9.85%
Partner Brands	654.06	1101.31	1412.77	1340.15
Growth rate		68.38%	28.28%	-5.14%
Hasbro Gaming	643.62	662.32	813.43	979.54
Growth rate		2.91%	22.82%	20.42%
Emerging Brands	634.41	398.47	465.95	494.61
Growth rate		-37.19%	16.93%	6.15%

Source: Team Analysis, Bloomberg

COST OF GOODS SOLD

We expect COGS of Hasbro will increase by 1.36% (Figure 29) for 2 years and then decrease by 0.32% from 2020 to 2024. The latter negative trend is due to a decrease in plastic prices and a decrease in labor costs due to Hasbro’s plan to move 30% of production from China to India and other cheap labor countries. (See Appendix 10)

WACC & LONG-TERM GROWTH RATE CALULATION

We took the average of the cash paid for interest over long-term debt and the company’s bonds’ yields to calculate cost of debt. We took the average of the CAPM and the Two-Stage Golden Growth Model to calculate the cost of equity resulting in a WACC of 7.44% (Figure 30). We used the 10 year Treasury Note yield as the risk free rate (2.55%), market risk premium (5.45%) data from Bloomberg, and projected 2017 tax rate.

We adopted three major resources to conduct the economic predictions: World Bank, IMF, and projections from the Federal Reserve Board members and Federal Reserve Bank presidents. We averaged the projections from the three sources to get the projections for 2017, 2018, 2019 and calculated the weighted average based on the revenue breakdown in each area(Figure 31). (See Appendix 11)

CAPITAL EXPENDITURE

Capital expenditure increased in recent years because of Hasbro’s investment in information systems as well as new office space for the Hasbro headquarters. Hasbro expects capital expenditures to be in the range of \$130 million to \$160 million in 2017.

DCF CALCULATION

We used the Discounted Cash Flow Model to calculate free cash flow and the terminal growth rate to calculate terminal value. We then added back cash, subtracted total debt to get the enterprise value, and then divided by the number of basic shares outstanding, as of 2017, to calculate the fair value of Hasbro’s stock price.

COMPARABLE VALUATION

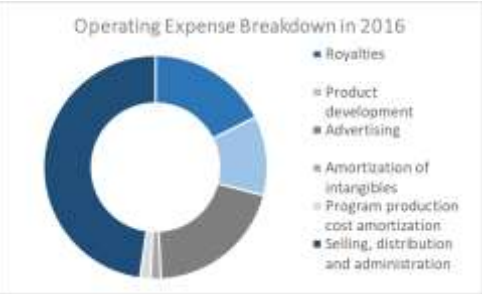
We used EV/EBITDA for the comparable valuation. We chose industry peers based on similarities of products and target customers (Figure 32). Some non-U.S. toy companies and entertainment companies are included because they either indirectly compete with Hasbro or have similar strategies and business models. We also used benchmarks to identify similar candidates based on Debt/Equity ratio, EBITDA Margin, and 5 year revenue growth. However, since we view Mattel to be the only solid comparable, we deemphasized the EV/EBITDA comparable valuation, and weighted the comparable valuation 10% in calculating our final fair value. Considering the comparable valuation was based on interactive ratios between Hasbro and its industry peers, it offered insights about the industry and financial status of Hasbro (See Appendix 12)

FINANCIAL ANALYSIS

Revenue Growth

From 2007 to 2016, Hasbro’s revenue has grown steadily at a CAGR of 3% (Figure 33), including three years of negative growth in 2010, 2012, and 2013. Though the 2008 financial recession effected many industries, the toys & games industry seemed to be less effected indicated by both Hasbro and Mattel’s steady revenue. In 2007, Hasbro released the Transformers movie, which had remarkable success and helped Hasbro increase its revenue significantly. This franchise became the biggest revenue growth driver for Hasbro. For example, in 2007 and 2009, The Transformers products accounted for 12.6% and 14.5% of consolidated net revenues, respectively. Other than the Transformers movies, other partner brand movies such as Jurassic Park and the Marvel movies also played important roles in the revenue growth. During the last 9 years, Hasbro worked with Beyblade, Yo-Kai Watch, and Disney’s Frozen to generate significant revenue in 2011, 2015, and 2016 respectively. (See Appendix 9)

Figure 34



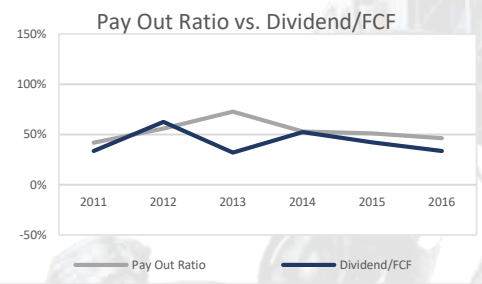
Source: Bloomberg

Figure 35



Source: Bloomberg

Figure 36



Source: Bloomberg

Figure 37



Source: Bloomberg

Figure 38

Liquidity Analysis	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Industry Median	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Cash Ratio	0.88	0.50	0.83	0.92	0.79	0.79	0.98	0.99	0.99	0.99	0.89	0.89	0.90	0.90
Current Ratio	2.61	1.82	2.53	2.69	1.99	1.95	2.21	2.22	2.23	2.23	2.20	2.20	2.21	2.21
Profitability Analysis														
Operating Margin	13.49%	11.44%	14.85%	15.56%	15.70%	8.75%	14.94%	14.43%	13.74%	13.74%	13.70%	13.66%	13.61%	13.56%
Return on Asset	7.95%	6.56%	9.31%	9.77%	11.24%	6.97%	10.02%	10.44%	10.18%	10.16%	10.78%	10.74%	10.75%	10.70%
Return on Equity	22.98%	17.95%	26.42%	28.88%	31.27%	13.59%	26.94%	27.84%	27.43%	27.45%	26.73%	26.68%	26.74%	26.60%
Finacial Risk Analysis														
Total Debt to Equity	1.08	0.81	1.20	1.00	0.91	0.49	0.88	0.88	0.89	0.89	0.70	0.70	0.70	0.70
Interest Coverage Ratio	6.06	4.42	6.82	7.13	8.09		7.56	7.43	7.28	7.29	9.09	9.07	9.09	9.06
Net Debt / EBITDA	1.10	1.10	1.16	0.87	0.47	0.45	0.15	0.12	0.09	0.08	-0.05	-0.05	-0.07	-0.07
Other														
Payout Ratio	55.62%	72.88%	52.42%	50.81%	46.24%	33.96%	49.02%	49.19%	51.93%	56.42%	57.37%	62.07%	65.05%	69.62%
Dividend Growth Rate	20.00%	11.11%	7.50%	6.98%	10.87%		11.76%	10.53%	10.32%	10.07%	9.80%	9.52%	9.24%	8.96%
Efficiency														
Days Inventory Outstanding	72.12	72.33	73.77	78.58	73.75	73.75								
Days Sales Outstanding	93.66	94.68	93.11	94.63	92.01	55.17								
Days Payable Outstanding	30.82	36.14	44.32	47.96	53.47	40.09								
Cash Conversion Cycle	134.96	130.87	122.56	125.25	112.30	74.25								

Source: Team Analysis, Bloomberg

Operating Margin

Hasbro’s operating expenses consist of royalties, product development, advertising, amortization of intangibles, program production cost amortization, and selling, distribution and administration (Figure 34). We expect operating margins will slowly decrease in the future mainly due to increasing royalties and COGS. Hasbro’s largest IPs, Marvel and Star Wars, will end in 2018. Hasbro must renegotiate, and we expect the royalties fee to increase (See Appendix 22). In the long run, we expect operating margins will be between 13% to 14% (Figure 35).

Dividend & Stock Buyback

Usually, we analyze the payout ratio since dividend per share is a fixed amount. However, the common outstanding shares can be varied by different operations such as stock buy back or issuance of options, etc. Therefore, we introduced another way to look at the dividend policy, dividend/FCF (Figure 36). FCF is cash after operations and capital investment, available to pay dividends. The higher the ratio, the less a company retains for future use. Although Hasbro’s pay out ratio once peaked at more than 70%, dividend/FCF consistently remains below 50% (except for 2012 and 2014), which presents a safe level of dividends and a good retention rate for Hasbro’s future operations. Moreover, Hasbro constantly buys back their shares, which led to a decrease in its common outstanding shares. We anticipate that future stock buybacks will continue and the dividend yield will continue to be raised.

Revenue Surprise & Stock Relation

From the chart (Figure 37) we can see that the quarterly revenue surprise relative to consensus estimates (per Bloomberg) and the stock price has a 53% correlation from 2014 to 2017. Consequently, we believe that the Hasbro stock price is strongly driven by revenue surprises.

Key Ratios

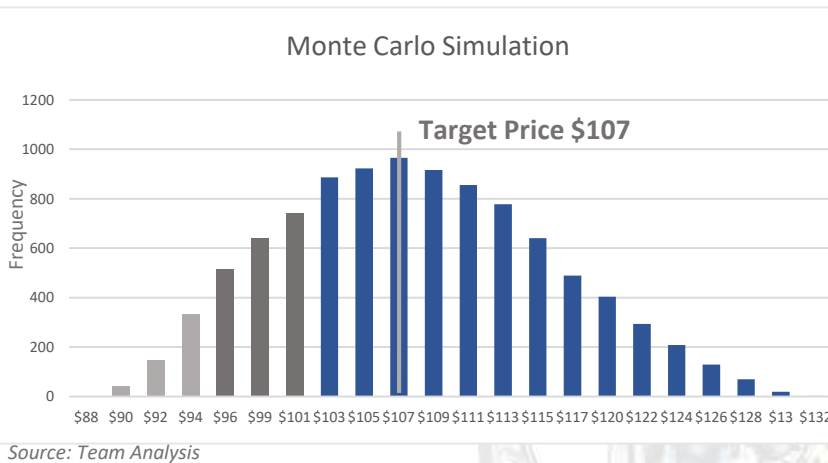
From the table (Figure 38), we can see that liquidity in the past has been very healthy, and above the industry median. Our forecast for future liquidity is similarly healthy due to increasing revenue and stable businesses. Profitability is also above the industry median, due to the company’s leading position in the industry and benefits from economies of scale. Hasbro’s Financial risk is low because it has a high interest coverage ratio and stable future cash flows. The payout ratio is expected to keep increasing in the future due to high growth of dividends. We believe at some point in the future, Hasbro will slow dividend growth to match the revenue growth and hence lower the payout ratio. Hasbro’s cash conversion cycle is lower than industry median, indicating improper supply chain management. However, the cash conversion cycle has continued to decrease since 2012, which indicates Hasbro is managing to become more efficient. (See Appendix 15)

MONTE CARLO SIMULATION

We used the Monte Carlo simulation to predict possible price changes and identify the most sensitive variable for Hasbro in our assumptions. We tested the revenue growth rate, long-term growth rate and discount rate in Monte Carlo Simulation. The findings show that the price is effected most

by changes in the long-term growth rate. We expect the revenue growth rate and long-term growth rate will grow at a base case growth rate (See Appendix 16) and applied random growth rates from a specific range to simulate a range of stock prices. After running 10,000 simulation paths, the result indicates a 47.89% probability that the price of Hasbro will be above \$107. There is a 50.20% probability the price will be between \$92.45 and \$107. The probability of the price being lower than \$92.45 (current price) is only 1.91%.

Figure 39



SENSITIVITY AND SCENARIO ANALYSIS

While doing DCF analysis, in addition to our base case, we introduced two other scenarios: better case and worse case. Better case includes acquiring new IPs twice in the next 7 years and revenues increasing faster than base case due to better than expected storytelling strategies. In this better case, for example, a new release of the Transformers movie would have great success, increasing the 1 year target price to \$116.94 (Better case does not include merger with Mattel). Worse case includes status quo, with no changes of IPs in the next 7 years and a lower growth rate for

Figure 40

Hasbro 1 Year Target Price	
Share Price(Base Case)	\$ 107.13
Share Price(Better Case)	\$ 116.94
Share Price(Worse Case)	\$ 95.07

Source: Team Analysis

Figure 41

		WACC						
		7.10%	7.20%	7.30%	7.44%	7.50%	7.60%	7.70%
Long-Term Growth Rate	2.80%	118.87	116.14	113.54	110.11	108.67	106.38	104.19
	2.70%	116.74	114.12	111.61	108.31	106.92	104.71	102.60
	2.63%	115.34	112.79	110.35	107.13	105.77	103.62	101.55
	2.50%	112.75	110.33	108.00	104.93	103.6348	101.58	99.60
	2.40%	110.89	108.55	106.31	103.34	102.09	100.10	98.19

Source: Team Analysis

revenue due to worse than expected storytelling strategies, decreasing the 1 year target price to \$95.07 (Figure 40). The sensitivity analysis shows the price ranges from \$98.19 to \$118.87 (Figure 41), by changing long-term growth rate (2.4%-2.8%) and WACC (7.1%-7.7%).

MARKET RISK

MK1: Macro Economy Challenge

We expect Hasbro will be challenging doing business in Latin America. Take Brazil as an example; although Hasbro's revenue in Brazil grew 20% in Q4 2015, it faced challenges with macroeconomic factors and political instability in 2017. Moving forward, we are optimistic about the potential in Latin America, but expect more volatility. As for Europe, with the U.K. leaving the European Union, the economy of the EU will be negatively effected, which already decreased the sales of the U.K. and Germany in Q2 2017. We anticipate sales will continue to face challenges in this area. For the Asia Pacific area, China is the largest potential market. Although the appreciation in local currency will benefit Hasbro, stricter capital control may make the future repatriation more difficult, bringing uncertainties in Hasbro's development in China.

MK2: A Stronger U.S. Dollar Can be Expected

We analyzed the data from June 11th, 2008 to December 14th, 2017, during which the Federal Reserve changed its Policy Benchmark Rate five times. With strong expectations that the Fed will continue to deal with foreseeable strong GDP growth and actively manage CPI, a stronger USD will be expected, which will in turn have a negative impact on Hasbro's overseas business.

MK3: Potential Threat from the Fast-Developing Digital Trend

Children are exposed to digital media at an earlier age, which in turn has helped digital games grow faster. Hasbro must successfully execute a strategy that caters to the fast-developing trend and mitigate the risk.

Figure 42

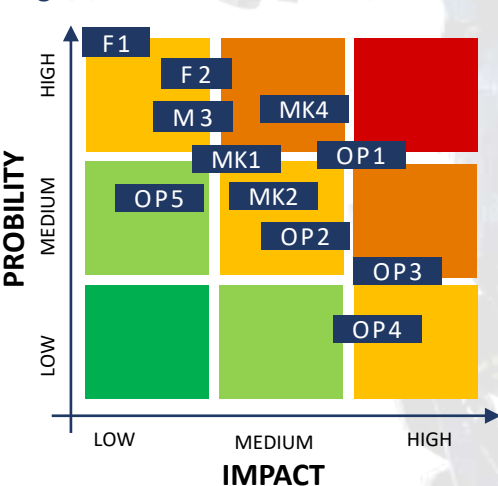
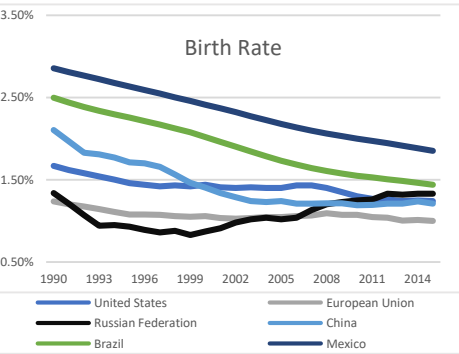
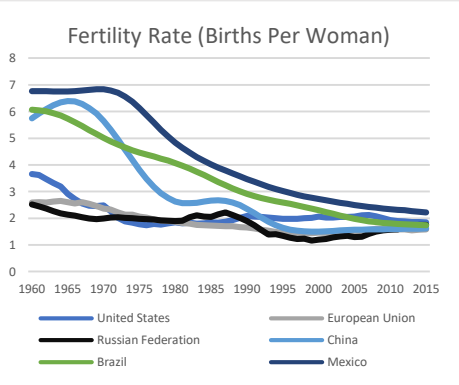


Figure 43



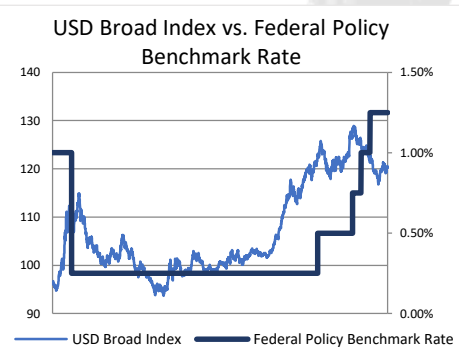
Source: Bureau of Labor Statistics

Figure 44



Source: Bureau of Labor Statistics

Figure 45



Source: Federal Reserve, World Bank, IMF

Figure 46

Historical M&A Information		
Company Type	Total Value (mil.)	Total Number
Communication	\$7.00	2
Consumer Cycl	\$703.89	6
Others	\$695.38	8
Technology	\$266.45	5
Total	\$1,672.72	21

Source: Bloomberg

MK4: Demographic Shift

Women are having fewer children and some developed economies are facing low birth rates (Figure 43, Figure 44), which raise concerns of maintaining the population level. The birth rate in the U.S. has declined every year since 2007. The shift in demographics may cause slower end-user market growth.

FINANCIAL & CREDIT RISK

FI1: Interest Rate

With the interest rate increased three times in 2017 (Figure 45) and projected to increase another three times in 2018, we can expect that financing and refinancing costs will be higher. (See Appendix 13)

FI2: Bankruptcy of Toys “R” Us

Toys “R” Us accounts for 9% of Hasbro’s net revenue globally. The Toys “R” Us bankruptcy is a potential risk to Hasbro as we anticipate more allowance for doubtful accounts and less accounts receivable due to the uncertainty of Toys “R” Us’ future. Also, it may complicate the retail channels of Hasbro since Toy “R” Us has a strong U.S. presence.

OPERATIONAL RISK

OP1: Hard to Provide New Loyal Brands

It is hard for Hasbro to consistently deliver new brand stories. Although Hasbro has spent tremendous capital on its storytelling strategy, lately the company has found it challenging to create new, unique trademarks, which historically have been the core of its sales.

OP2: Remain Average Level in Catering to E-Commerce

E-commerce represents only 15% of its total revenue, which is the same as the average level in the industry. If Hasbro cannot stand out from the crowd, other competitors may take advantage of the trend.

OP3: Revenues Heavily Rely on Media

The success or failure of blockbuster movies or TV can significantly impact the sales volume and revenue in turn. If the Transformers movies do not meet expectations, not only cannot they boost sales but also cost Hasbro in initial investments.

OP4: Fail to Maintain Partnership with IP Owners

Due to the dependency on successful stories, maintaining good relationships with major IP owners is essential. Hasbro will pay a high price if it loses licenses from IP owners such as Disney or Marvel.

OP5: Potential Financial Challenges in Emerging Markets

In Q1 2016, some retailers in emerging markets met with difficulties and incurred bad debt. Moving forward, using a more active strategy when entering emerging markets, Hasbro may face the same risk due to unfamiliar business environments and macroeconomic conditions.

MERGERS & ACQUISITIONS

In November 2017, Hasbro offered its major rival, Mattel, a takeover plan, and got an immediate rejection. It was not the first time that Hasbro proposed to merge with Mattel (two other proposals in 1996 and late 2015, respectively). Based on our analysis, we believe the possibility of M&A is low. (See Appendix 20). But Hasbro had a successful M&A history. It conducted 21 deals (Figure 46) in the past with 10 financed fully in cash, one with partly cash and partly debt, and 10 remain undisclosed. The target companies fit in three major industries: Cyclical Consumer Goods & Services, Technology, and Communications. In the past three M&A deals, two belonged to Communication and one belonged to Technology, which may indicate Hasbro’s interest in growing its digital footprint. We also interviewed two experts, Lutz Muller, the President of Klosters Trading Corporation and top expert in the industry, who published a thorough article of the M&A between Hasbro and Mattel on Seeking Alpha; and Professor Hillary Greene, Zephaniah Swift Professor of Law at UConn School of law, and a visiting scholar at Harvard Law School, who is an expert in antitrust. They both offer great insights about the case and valuable suggestions for our research. (See Appendix 21)

APPENDIX 1: GLOSSARY

FRANCHISE BRANDS

- Transformers:** A brand based on robots with human shapes that turn into different machines.
- Nerf:** A toy gun that shoots form soft bullets.
- My Little Pony:** An entertainment franchise based on storytelling. This franchise also has physical and virtual toys that accompany the stories.
- Littlest Pet Shop:** A franchise based on animated television series .
- Monopoly:** A board game where the players’ objective is to own all the properties and all the money available.
- Magic: The Gathering:** A game where players battle against each other by using cards that represent creatures with powers and Magics.

PARTNER BRANDS

- Marvel:** A comic series based on well-known superheroes including Spider-Man, Wolverine, the Hulk, Thor, Iron Man, Captain America, X-Men, the Guardians of the Galaxy, and the Fantastic Four.
- Frozen:** An animated musical fantasy movie produced by Disney including characters of Elsa, Anna, and Olaf.
- Disney Princess:** Disney animated film characters of the franchise are Snow White, Cinderella, Aurora, Ariel, and Belle.
- Yo-Kai Watch:** A Japanese popular mixed-media franchise of role-playing video games, created and developed by Level-5. The franchise has also become a popular anime television series.
- Star Wars:** An epic space opera media franchise, centered on a film series created by George Lucas.
- Beyblade:** A Japanese manga series written and illustrated by Takao Aoki focused on a group of kids who form teams and battle one another using Beyblades.

HASBRO GAMING BRANDS

- Taboo:** A popular party game that involves filling in the blank with interesting word choices.
- Jenga:** A game where players take turns removing one block at a time from a tower constructed of 54 blocks.
- Scrabble:** A game in which two to four players score points by placing tiles bearing a single letter onto a board.
- Speak OUT:** A game that players try to say different phrases while wearing a mouthpiece.
- Pie Face:** A game involves two players revolving around the gag of getting a pie in the face.
- Dungeons & Dragons:** A fantasy tabletop role-playing game.

EMERGING BRANDS

- Playskool:** Educational toys and games for children including Mr. Potato Head, Tonka, Alphie, Weebles, Elefun, Sesame Street toys, and Gloworm.
- Baby Alive:** A baby doll that eats, drinks, wets and in some cases messes, all with a movable mouth.
- Furby:** An American electronic robotic toy released in 1998. It resembles a hamster or owl-like creature and went through a period of being a "must-have" toy following its holiday season launch, with continual sales until 2000.
- G.I. Joe:** A line of action figures representing four of the branches of the U.S. armed forces with the Action Soldier, Action Sailor, Action Pilot, Action Marine, and the Action Nurse.
- Hanazuki:** An animated children's web show made in conjunction with a line of Hanazuki toys.
- FurReal:** Robotic toys range from guinea pigs to dinosaurs, coming in many sizes; some are able to be held in a child's hand and others are able to be ridden by a child.

APPENDIX 2: BALANCE SHEET

\$mm	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Cash and Equivalents	849.70	682.45	893.17	976.75	1,282.29	1,732.29	1,832.48	1,970.07	1,966.38	1,803.92	1,800.18	1,860.48	1,870.27
Operating Current Assets	1,678.10	1,817.01	1,825.93	1,903.75	1,962.12	2,162.97	2,288.08	2,484.71	2,480.07	2,649.76	2,645.03	2,721.09	2,733.43
Property Plant & Equipment - Net	230.41	236.26	237.49	237.53	267.40	262.05	256.81	251.67	246.64	241.71	239.29	238.09	235.71
Other Intangible Assets	416.66	376.00	324.53	280.81	245.95	219	194	173	153	136	121	108	96
Goodwill	474.93	594.32	593.44	592.70	570.56	565.96	559.08	552.28	545.57	538.94	532.39	525.92	519.53
Other Noncurrent Assets	695.19	715.23	657.59	744.09	779.86	801.21	823.14	845.68	868.83	892.61	917.05	942.16	967.95
Allowance For Doubtful Accounts	19.60	19.00	15.90	14.90	16.80	33.90	17.24	16.65	15.87	16.59	16.37	16.27	16.41
Total Assets	4,325.39	4,402.27	4,516.24	4,720.72	5,091.37	5,709.12	5,936.56	6,260.35	6,244.99	6,246.65	6,238.68	6,379.10	6,406.12
Operating Current Liability	736.07	926.56	822.45	900.08	1,095.56	1,291.82	1,366.54	1,483.98	1,481.20	1,582.55	1,579.72	1,625.15	1,632.52
Financial Debt	1,620.79	1,396.62	1,812.38	1,711.68	1,720.97	1,875.30	1,950.01	2,056.36	2,051.32	1,751.86	1,749.63	1,789.01	1,796.59
Other Noncurrent Liabilities	461.15	351.30	388.92	404.88	389.39	418.80	393.23	397.21	400.61	393.04	398.26	399.43	398.75
Total Liabilities	2,818.01	2,674.48	3,023.75	3,016.65	3,205.93	3,585.92	3,709.77	3,937.56	3,933.13	3,727.45	3,727.61	3,813.59	3,827.86
Minority/Non Controlling Int (Stckhldrs Eqty)	-	45.45	42.73	40.17	22.70	-	-	-	-	-	-	-	-
Common Stock	104.85	104.85	104.85	104.85	104.85	104.85	104.85	104.85	104.85	104.85	104.85	104.85	104.85
Additional Paid In Capital	655.94	734.18	806.27	893.63	985.42	1,077.63	1,178.47	1,288.75	1,409.35	1,541.24	1,685.47	1,843.19	2,015.67
Treasury Stock (Amount)	(2,535.65)	(2,554.73)	(2,980.07)	(3,040.90)	(3,181.68)	(3,342.40)	(3,511.23)	(3,688.59)	(3,874.91)	(4,070.64)	(4,276.26)	(4,492.27)	(4,719.19)
Accumulated Other Comprehensive Income	(72.31)	(34.14)	(95.45)	(146.00)	(194.57)	(229.52)	(266.49)	(306.63)	(346.70)	(389.52)	(432.25)	(476.22)	(520.38)
Retained Earnings (Accumulated Deficit)	3,354.55	3,432.18	3,630.07	3,852.32	4,148.72	4,512.64	4,721.19	4,924.42	5,019.28	5,333.27	5,429.27	5,585.96	5,697.32
Par Value	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Shares Issued	209.69	209.69	209.69	209.69	209.69	209.69	209.69	209.69	209.69	209.69	209.69	209.69	209.69
Total Shareholders Equity	1,507.38	1,727.79	1,492.49	1,704.07	1,885.44	2,123.21	2,226.79	2,322.80	2,311.86	2,519.19	2,511.07	2,565.51	2,578.27
Total Liabilities and Shareholders Equity	4,325.39	4,402.27	4,516.24	4,720.72	5,091.37	5,709.12	5,936.56	6,260.35	6,244.99	6,246.65	6,238.68	6,379.10	6,406.12

\$mm	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Cash and Equivalents	19.64%	15.50%	19.78%	20.69%	25.19%	30.34%	30.87%	31.47%	31.49%	28.88%	28.86%	29.17%	29.20%
Operating Current Assets	38.80%	41.27%	40.43%	40.33%	38.54%	37.89%	38.54%	39.69%	39.71%	42.42%	42.40%	42.66%	42.67%
Property Plant & Equipment - Net	5.33%	5.37%	5.26%	5.03%	5.25%	4.59%	4.33%	4.02%	3.95%	3.87%	3.84%	3.73%	3.68%
Other Intangible Assets	9.63%	8.54%	7.19%	5.95%	4.83%	3.83%	3.27%	2.76%	2.46%	2.18%	1.94%	1.69%	1.49%
Goodwill	10.98%	13.50%	13.14%	12.56%	11.21%	9.91%	9.42%	8.82%	8.74%	8.63%	8.53%	8.24%	8.11%
Other Noncurrent Assets	16.07%	16.25%	14.56%	15.76%	15.32%	14.03%	13.87%	13.51%	13.91%	14.29%	14.70%	14.77%	15.11%
Allowance For Doubtful Accounts	0.45%	0.43%	0.35%	0.32%	0.33%	0.59%	0.29%	0.27%	0.25%	0.27%	0.26%	0.26%	0.26%
Total Assets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Operating Current Liability	26.12%	34.64%	27.20%	29.84%	34.17%	36.02%	36.84%	37.69%	37.66%	42.46%	42.38%	42.61%	42.65%
Financial Debt	57.52%	52.22%	59.94%	56.74%	53.68%	52.30%	52.56%	52.22%	52.15%	47.00%	46.94%	46.91%	46.93%
Other Noncurrent Liabilities	16.36%	13.14%	12.86%	13.42%	12.15%	11.68%	10.60%	10.09%	10.19%	10.54%	10.68%	10.47%	10.42%
Total Liabilities	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Minority/Non Controlling Int (Stckhldrs Eqty)	0.00%	2.63%	2.86%	2.36%	1.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Common Stock	6.96%	6.07%	7.02%	6.15%	5.56%	4.94%	4.71%	4.51%	4.54%	4.16%	4.18%	4.09%	4.07%
Additional Paid In Capital	43.52%	42.49%	54.02%	52.44%	52.26%	50.75%	52.92%	55.48%	60.96%	61.18%	67.12%	71.84%	78.18%
Treasury Stock (Amount)	-168.22%	-147.86%	-199.67%	-178.45%	-168.75%	-157.42%	-157.68%	-158.80%	-167.61%	-161.59%	-170.30%	-175.10%	-183.04%
Accumulated Other Comprehensive Income	-4.80%	-1.98%	-6.40%	-8.57%	-10.32%	-10.81%	-11.97%	-13.20%	-15.00%	-15.46%	-17.21%	-18.56%	-20.18%
Retained Earnings (Accumulated Deficit)	222.54%	198.65%	243.22%	226.07%	220.04%	212.54%	212.02%	212.00%	217.11%	211.71%	216.21%	217.73%	220.97%
Par Value	0.03%	0.03%	0.03%	0.03%	0.03%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%
Shares Issued	13.91%	12.14%	14.05%	12.31%	11.12%	9.88%	9.42%	9.03%	9.07%	8.32%	8.35%	8.17%	8.13%
Total Shareholders Equity	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

ASSUMPTIONS

- There will be no huge M&A in the nest 7 years.
- Hasbro will not issue new bonds to retire the prior debt that matures in 2021.
- Allowance for doubtful account increased in 2017 due to filing of Chapter 11 of Toy “R” Us, and decreased to previous level as uncertainty subsides.
- Hasbro will continue to buyback its stock in the future.
- Hasbro will not issue new shares in the near future.
- The dollar’s appreciation will have a slight negative impact in the near future.

APPENDIX 3: INCOME STATEMENT

\$(mm)	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Revenue	4,089.00	4,082.20	4,277.20	4,447.50	5,019.80	5371.16	5681.83	6170.13	6158.60	6579.97	6568.23	6757.11	6787.76
Revenue growth	-4.59%	-0.17%	4.78%	3.98%	12.87%	7.00%	5.78%	8.59%	-0.19%	6.84%	-0.18%	2.88%	0.45%
Cost of Goods Sold	1,672.00	1,672.90	1,698.40	1,677.00	1,905.50	2114.07	2266.74	2494.98	2482.48	2643.97	2630.94	2698.07	2701.77
COGS as % Revenue	40.89%	40.98%	39.71%	37.71%	37.96%	39.36%	39.89%	40.44%	40.31%	40.18%	40.06%	39.93%	39.80%
Gross Profit	2,417.00	2,409.30	2,578.80	2,770.50	3,114.30	3,257.09	3,415.10	3,675.15	3,676.12	3,936.00	3,937.29	4,059.04	4,085.99
- Operating Expenses	1,865.22	1,942.16	1,943.46	2,078.54	2,326.30	2,454.62	2,595.17	2,827.54	2,829.69	3,034.73	3,039.83	3,139.07	3,165.25
Royalties	302.07	338.92	305.32	379.25	409.52	418.95	454.32	505.76	517.50	566.79	580.00	611.67	629.88
Product development	201.20	207.59	222.56	242.94	266.38	268.56	286.36	313.44	315.32	339.53	341.55	354.07	358.39
Advertising	422.24	398.10	420.26	409.39	468.94	502.20	530.68	576.91	575.83	615.89	615.44	633.82	637.37
Amortization of intangibles	50.57	78.19	52.71	43.72	34.76	32.23	28.41	24.68	21.56	19.74	16.42	13.51	10.18
Program production cost amortization	41.80	47.69	47.09	42.45	35.93	33.30	32.39	32.08	28.95	27.64	24.30	21.62	18.33
Selling, distribution and administration	847.35	871.68	895.54	960.80	1,110.77	1199.38	1263.01	1374.67	1370.54	1465.15	1462.12	1504.38	1511.10
Operating Income (Loss)	551.78	467.14	635.34	691.96	788.00	802.47	819.93	847.61	846.43	901.27	897.46	919.97	920.74
Operating margin	13.49%	11.44%	14.85%	15.56%	15.70%	14.94%	14.43%	13.74%	13.74%	13.70%	13.66%	13.61%	13.56%
- Non-Operating (Income) Loss	98.4	115.3	95.4	88	95.6	61.70	65.84	72.11	72.59	78.22	78.74	81.68	82.72
Non-Operating (Income) Loss/sales	2.41%	2.82%	2.23%	1.98%	1.90%	1.15%	1.16%	1.17%	1.18%	1.19%	1.20%	1.21%	1.22%
Pretax Income	453.38	351.84	539.94	603.96	692.40	740.77	754.09	775.49	773.84	823.05	818.72	838.29	838.02
- Income Tax Expense (Benefit)	117.4	67.9	126.7	157	159.3	168.7	134.2	138.4	139.2	149.6	148.8	152.3	152.3
Tax rate	25.89%	19.30%	23.47%	26.00%	23.01%	22.78%	17.80%	17.85%	17.99%	18.17%	18.17%	18.17%	18.17%
Income (Loss) from Cont Ops	335.98	283.94	413.24	446.96	533.10	572.04	619.88	637.09	634.60	673.48	669.94	685.95	685.73
- Minority Interest	0	-2.3	-2.6	-5	-18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income, GAAP	335.98	286.24	415.84	451.96	551.30	572.04	619.88	637.09	634.60	673.48	669.94	685.95	685.73
Basic Weighted Avg Shares	130.1	130.2	128.4	125	125.3	124.5	122.5	120.5	118.5	116.5	114.5	112.5	110.5
Basic EPS, GAAP	2.58	2.20	3.24	3.62	4.40	4.59	5.06	5.29	5.36	5.78	5.85	6.10	6.21

\$(mm)	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Revenue	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Revenue growth	-	-	-	-	-	-	-	-	-	-	-	-	-
Cost of Goods Sold	40.89%	40.98%	39.71%	37.71%	37.96%	39.36%	39.89%	40.44%	40.31%	40.18%	40.06%	39.93%	39.80%
Royalties	7.39%	8.30%	7.14%	8.53%	8.16%	7.80%	8.00%	8.20%	8.40%	8.61%	8.83%	9.05%	9.28%
Product development	4.92%	5.09%	5.20%	5.46%	5.31%	5.00%	5.04%	5.08%	5.12%	5.16%	5.20%	5.24%	5.28%
Advertising	10.33%	9.75%	9.83%	9.20%	9.30%	9.35%	9.34%	9.35%	9.35%	9.36%	9.37%	9.38%	9.39%
Amortization of intangibles	1.24%	1.92%	1.23%	0.98%	0.70%	0.60%	0.50%	0.40%	0.35%	0.30%	0.25%	0.20%	0.15%
Program production cost amortization	1.02%	1.17%	1.10%	0.95%	0.72%	0.62%	0.57%	0.52%	0.47%	0.42%	0.37%	0.32%	0.27%
Selling, distribution and administration	20.72%	21.35%	20.94%	21.60%	22.13%	22.33%	22.23%	22.28%	22.25%	22.27%	22.26%	22.26%	22.26%
Operating Income (Loss)	13.49%	11.44%	14.85%	15.56%	15.70%	14.94%	14.43%	13.74%	13.74%	13.70%	13.66%	13.61%	13.56%
Net Income, GAAP	8.22%	7.01%	9.72%	10.16%	10.98%	10.65%	10.91%	10.33%	10.30%	10.24%	10.20%	10.15%	10.10%

ASSUMPTIONS

- Revenue will grow in the next 7 years due to the release of new movies, new IP acquisitions, and Hasbro’s major markets’ growth.
- COGS will increase due to plastic and labor cost increases from 2018 - 2019 and slightly decrease from 2020 to 2024.
- Operating expense will increase mainly due to increasing royalties and COGS.
- Tax rate will decrease due to the new tax bill.
- Shares outstanding will decrease due to stock buyback.
- EPS will increase due to stock buyback and revenue and earning increase

APPENDIX 4: DISCOUNTED CASH FLOW VALUATION

[illegible]

We used the Discounted Cash Flow Model to calculate free cash flow as

Net Income + Depreciation & Amortization – Change in Working Capital – Capital Expense + Net Interest after tax, and terminal value using long-term growth rate. We added back cash and subtracted total debt to get the equity value, and divided by the number of basic shares outstanding to calculate the fair value of Hasbro's stock. We calculated capital expenditure by change in Net PP&E+ depreciation. Capital expenditure increased in recent years because of Hasbro's investment in information systems and new office for its headquarters. Hasbro also expects capital expenditures to be in the range of \$130.0 million to \$160.0 million. Forecasts of capital expenditure is based on information from Q3 2017.

APPENDIX 5: SCENARIO ANALYSIS

BASE CASE REVENUE

	Base Case							
Revenue Breakdown	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Revenue	5371.16	5681.83	6170.13	6158.60	6579.97	6568.23	6757.11	6787.76
Growth Rate	7.00%	5.78%	8.59%	-0.19%	6.84%	-0.18%	2.88%	0.45%
Franchise Brands	2556.86	2,480.2	2,629.0	2,523.8	2,650.0	2,517.5	2,618.2	2,539.7
Growth Rate	9.85%	-3%	6%	-4%	5%	-5%	4%	-3%
Partner Brands	1340.15	1,407.2	1,547.9	1,470.5	1,573.4	1,557.7	1,573.3	1,620.5
Growth Rate	-5.14%	5%	10%	-5%	7%	-1%	1%	3%
Hasbro Gaming	979.54	1,155.9	1,335.0	1,508.6	1,667.0	1,800.3	1,899.3	1,956.3
Growth Rate	20.42%	18%	16%	13%	11%	8%	6%	3%
Emerging Brands	494.61	502.0	512.1	524.9	540.6	559.5	581.9	608.1
Growth Rate	6.15%	1.50%	2.00%	2.50%	3.00%	3.50%	4.00%	4.50%
Hasbro's Major Market Growth Rate	2.87%	2.46%	2.43%	2.17%	2.32%	2.07%	1.26%	0.94%

ASSUMPTIONS

- Franchise Brands revenue will be lumpy, increase sharply in the years with a new Transformers movie.
- Partner Brands revenue will increase in the years that have partner brand movie releases and new IP deals.
- Hasbro Gaming revenue will increase, but the rate at which it will increase will slow down due to the impact of the digital gaming trend.
- Emerging Brands will slowly improve due to continues investment in products and brands innovation.
- Hasbro's major markets' will increase due to growth in traditional toys & games industry.

BETTER CASE REVENUE

	Better Case							
Revenue Breakdown	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Revenue	5371.16	5761.69	6398.07	6546.23	7165.89	7346.10	7929.43	8185.55
Growth Rate	7.00%	7.27%	11.04%	2.32%	9.47%	2.51%	7.94%	3.23%
Franchise Brands	2556.86	2,531.3	2,733.8	2,679.1	2,866.7	2,780.7	2,947.5	2,918.0
Growth Rate	9.85%	-1.00%	8.00%	-2.00%	7.00%	-3.00%	6.00%	-1.00%
Partner Brands	1340.15	1,434.0	1,606.0	1,557.9	1,698.1	1,715.0	1,938.0	2,034.9
Growth Rate	-5.14%	7.00%	12.00%	-3.00%	9.00%	1.00%	13.00%	5.00%
Hasbro Gaming	979.54	1,155.9	1,387.0	1,629.8	1,874.2	2,108.5	2,319.3	2,493.3
Growth Rate	20.42%	18%	20.0%	17.5%	15.0%	12.5%	10.0%	7.5%
Emerging Brands	494.61	502.0	519.6	540.4	564.7	592.9	625.6	663.1
Growth Rate	6.15%	1.50%	3.500%	4.000%	4.500%	5.000%	5.500%	6.000%
Hasbro's Major Market Growth Rate	2.87%	2.46%	2.43%	2.17%	2.32%	2.07%	1.26%	0.94%

ASSUMPTIONS

- Franchise Brands revenue will increase faster than the base case due to better than expected storytelling strategies.
- Partner Brands revenue will increase faster than the base case due to precise capturing of consumers' tastes and acquisition of more new IPs.
- Hasbro Gaming revenue will be supported by stronger demand for face to face play experience
- Emerging Brands will increase due to successful investment and catering to the popular trends.
- Hasbro's major markets' growth will remain the same as in base case.

WORSE CASE REVENUE

	Worse Case							
Revenue Breakdown	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Revenue	5371.16	5581.90	5949.64	5820.80	5960.70	5834.16	5890.11	5797.41
Growth Rate	7.00%	3.92%	6.59%	-2.17%	2.40%	-2.12%	0.96%	-1.57%
Franchise Brands	2556.86	2,429.0	2,526.2	2,374.6	2,445.8	2,274.6	2,320.1	2,204.1
Growth Rate	9.85%	-5.00%	4.00%	-6.00%	3.00%	-7.00%	2.00%	-5.00%
Partner Brands	1340.15	1,380.4	1,490.8	1,386.4	1,317.1	1,277.6	1,264.8	1,277.5
Growth Rate	-5.14%	3.00%	8.00%	-7.00%	-5.00%	-3.00%	-1.00%	1.00%
Hasbro Gaming	979.54	1,136.3	1,289.7	1,431.5	1,553.2	1,646.4	1,704.0	1,721.1
Growth Rate	20.42%	16.00%	13.50%	11.00%	8.50%	6.00%	3.50%	1.00%
Emerging Brands	494.61	502.0	502.0	504.5	509.6	517.2	527.6	540.8
Growth Rate	6.15%	1.50%	0.00%	0.50%	1.00%	1.50%	2.00%	2.50%
Hasbro's Major Market Growth Rate	2.87%	2.46%	2.43%	2.17%	2.32%	2.07%	1.26%	0.94%

ASSUMPTIONS

- Franchise Brands revenue will increase slower than the base case due to inadequate execution of strategies.
- Partner Brands revenue will increase slower than base case due to no new IP acquisition.
- Hasbro Gaming revenue will increase, but will have a larger negative impact from the digital gaming trend.
- Emerging Brands will increase slower than expected due to inefficient investment and unmeet consumers' taste.
- Hasbro's major markets' growth will remain the same in base case.

APPENDIX 6: SWOT ANALYSIS

S

- One of the largest and most recognized companies in the toys & games industry globally
- Strong sales growth (4.64% compounded annual growth in the past five years)
- Exclusive license with well-known IP owners such as Marvel and Disney
- Comprehensive product portfolio including games, toys, movies, and TV series
- High consumer loyalty and long product life cycles thanks to storytelling strategy
- Global presence; operational efficiencies involve increasing sales while decreasing cost.
- Strong penetration in emerging markets (Russia, Brazil, and China)

W

- Highly concentrated in 3 retailers, accounting 64% of the U.S. sales
- Encounter difficulties in creating new and unique brands
- Heavily rely on existing brands such as Transformers and Nerf
- Too big to nimbly respond to the market changes
- Low percentage of sales in e-commerce, accounting for only 15% of the total sales

SWOT

O

- Integrate the digital trend into the every engagement experience
- Create new brands by executing storytelling strategy
- Partner with e-commerce to elevate sales
- Partner or create new toys incorporating local culture (e.g. acquire IPs of famous Japanese comic stories and manufacture characters and other toys)

T

- Fast-developing digital games may become substitutes for traditional toys
- Increasing options may intensify the competition in the market
- Uncontrollable seasonality in critical sales seasons due to consumers' behaviors
- Fierce competition in storytelling strategy. (e.g. Japanese comics)
- Increasing labor cost in China, where most suppliers are located
- Regulatory changes and macroeconomic challenges globally

APPENDIX 7: PORTER FIVE FORCES ANALYSIS



Threat of New Entrants – Low: The threat of new entrants in the toys & games industry is low. Expansion of the digital games market has brought a lot of small digital game making companies to the industry, which have taken market share from Hasbro. For example, in 2014, Blizzard Company launched Hearthstone (A digital card game similar to the Magic: The gathering), which now has over \$20M revenue per month. However, the traditional toys market has always been competitive, highly consolidated, and always required high-economic-scale for generating profits. Accordingly, the barriers to entry remain relatively high. Companies in this industry enjoy high brand loyalty because consumers love exclusive characters such as Barbie, Transformers, and Monopoly, which makes it more difficult for new companies to enter. Moreover, due to the high safety awareness of traditional toys companies, manufacturing processes require non-toxic materials with stricter regulations, which not only increase cost, but also raise the barriers to entry. In rare cases, a company may enter the industry by capturing niche market that has not been occupied by other companies.

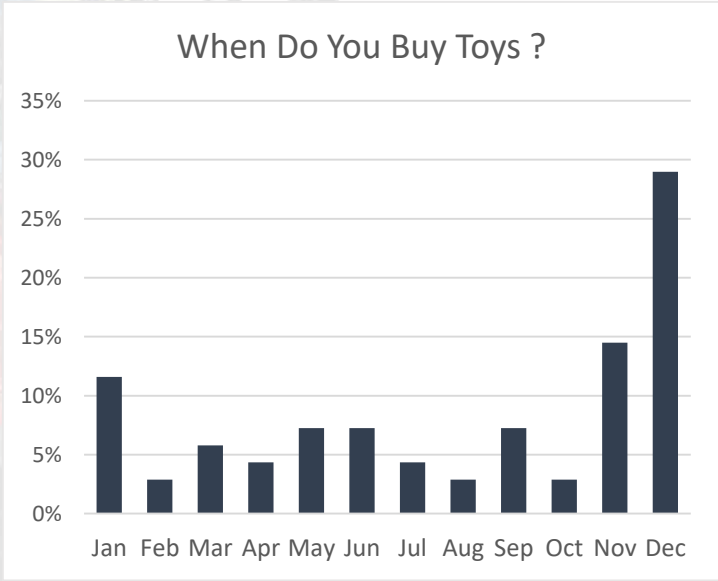
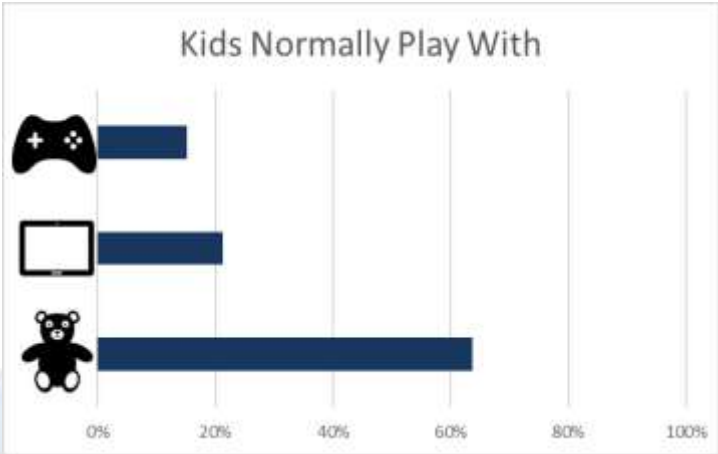
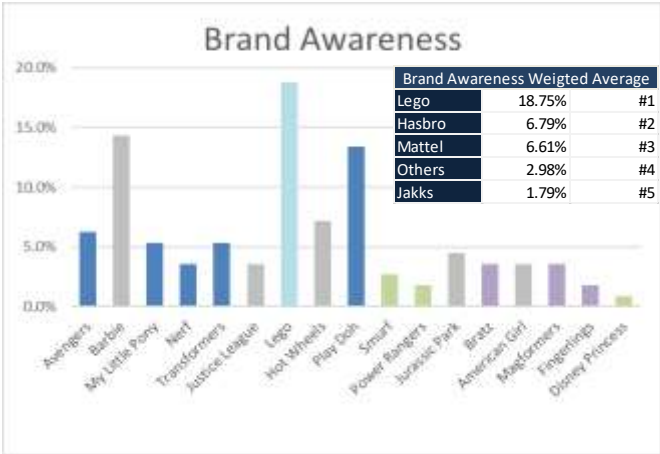
Bargaining Power of Buyers – Low: The Bargaining Power of Buyers in the toys & games industry is low. Large retail stores such as Toys “R” Us, Walmart, and Target are direct buyers in this industry. The bargaining power of direct buyers is low because there are so many different distribution channels for companies in the industry. For example, if Walmart refuses to sell Hasbro products due to high price, Hasbro has the ability to keep the same price to every other retailer who desires the product. For the end consumer, the bargaining power is low due to exclusive characters belonging to only certain companies. Even if prices are high, consumers will not find other companies selling the same characters, and have no choice but to accept the price. This is why Toys “R” Us performed well in the past holiday season even during their Chapter 11 bankruptcy process. Finally, Hasbro will eventually find new homes for its products even if certain retailers disappear.

Bargaining Power of Suppliers – Low: Hasbro outsources all of its production to third-party suppliers, mainly located in China. Since China has a surplus of factories, pricing remains competitive in order to get orders. These suppliers do not have much bargaining power with Hasbro. Also, there are more competitors located in countries with lower labor costs, such as India and Indonesia. Considering the increasing labor costs in China, Hasbro plan to move 30% of the production from China.

Threat of Substitutes – Very high: The threat for substitute products in this industry is strong and foreseeable. Toys & games are goods used for a variety of purposes such as entertainment and relaxation. People have abundant ways to entertain themselves and relax themselves. Instead of buying Transformers and Marvel heroes, consumers may choose to play outdoors or play other digital games. Since there are varieties of entertainment besides toys and games, the threat of being substituted in this industry is very high. Some kids prefer digital games over traditional toys, making traditional toy making companies face difficulties if they cannot adapt to the fast-developing digital trend.

Rivalry Among Existing Competitors – High: Rivalry among existing competitors is high due to the highly concentrated distribution in the industry and limited growth in the future. Although each company has its own consumer groups and exclusive characters, the slow growth and increasing number of new characters may lower the profitability and intensify competition among the existing players.

APPENDIX 8: SURVEY ANALYSIS



We designed a proprietary survey to gauge brand awareness and gain insights on consumer behaviors in the toy industry. We received 116 results (it varied according to different questions) that further supported our analysis.

Brand Awareness: We mixed several famous toys from different brands such as Hasbro, Mattel, Lego, Jakks, and others, and asked respondents to order three items by their interest and awareness. We then calculated the weighted average of each brand and analyzed the brand awareness based on the result. Since the respondents consisted of different age stratification, it was easily observed that Lego, Barbie and Play-Doh impressed different generations.

Digital Games vs. Traditional Toys: When faced with the question: “What do your kids, cousins, nephews, nieces, and grandkids typically play with?”, surprisingly, 74% selected traditional toys, 16% chose video games, while only 10% answered tablets. Although digital games may offer different play experiences, traditional toys are critical in childhood, which we anticipate only modest change in the future.

Purchase places: Amazon has become the preferred channel to purchase toys. It echoed our analysis that if Hasbro can grow its sales through ecommerce and stand out among its peers, they may get more advantage and expand their potential market share by capturing increasing group of customers who prefer online shopping.

Purchasing and Seasonality: Our findings indicated that most sales are concentrated in November, December, and January with percentages of 14% 29%, 12%, respectively, which indicates the strong seasonality in the industry. Although some toys can be popular throughout the year, 82% of parents expressed that they would wait until a special occasion or holiday season to buy toys for their children.

APPENDIX 9: REVENUE GROWTH PROJECTION

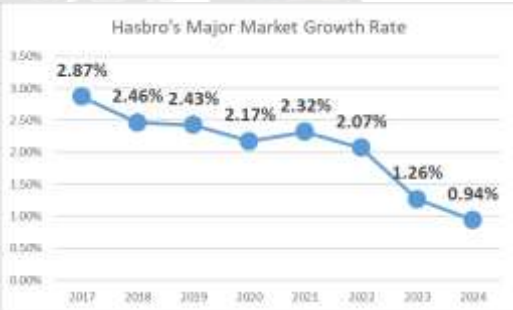
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Revenue	3,837.6	4,021.5	4,067.9	4,002.2	4,285.6	4,089.0	4,082.2	4,277.2	4,447.5	5,019.8
Growth rate		4.79%	1.15%	-1.62%	7.08%	-4.59%	-0.17%	4.78%	3.98%	12.87%
Boys' Toys	1,024.0	1,083.3	1,471.0	1,344.9	1,821.5	1,577.0	1,237.6	1,484.0	1,775.9	1,849.6
Growth rate		5.79%	35.78%	-8.57%	35.44%	-13.42%	-21.52%	19.90%	19.67%	4.15%
Games and Puzzles	1,323.6	1,315.4	1,340.9	1,293.8	1,167.0	1,192.1	1,311.2	1,259.8	1,276.5	1,387.1
Growth rate		-0.62%	1.94%	-3.51%	-9.80%	2.15%	9.99%	-3.92%	1.33%	8.66%
Girls' Toys	697.3	790.5	790.8	830.4	741.4	792.3	1,001.7	1,022.6	798.2	1,193.9
Growth rate		13.37%	0.04%	5.00%	-10.72%	6.87%	26.43%	2.09%	-21.94%	49.56%
Preschool Toys	434.9	480.7	451.4	532.5	553.0	527.6	531.6	510.8	596.8	589.2
Growth rate		10.53%	-6.09%	17.96%	3.85%	-4.59%	0.77%	-3.91%	16.83%	-1.27%
Other (Licensing)	105.6	81.4	13.9	0.6	2.7	—	—	—	—	—
Growth rate		-22.95%	-82.96%	-95.50%	331.89%	—	—	—	—	—

GROWTH PROJECTION

We observed that each Transformers movie release increased revenue of Boy's sector over 60% in 2007, 33% in 2011, 20% in 2014. We also observed that revenue of Boy's sector decreased dramatically in the years without a release of a Transformers movie. For example, in years 2010, 2012, and 2013, the revenue of Boy's sector decreased 7%, 13%, and 21%, respectively. We believe that the first Transformers movie significantly increased consumer awareness and helped Hasbro increase total revenue. The follow-up movies had a smaller impact on the revenue, and this impact will further reduce in the future due to competition of other Superhero movies such as DC movies and Marvel movies. Moreover, audiences may lose loyalty to Transformers movies as time goes on. So, we anticipate that the future release of Transformers movies expected in 2019, 2021, and 2023 would have less impact on the revenue. In 2011, 2015, and 2016 Hasbro acquired new IPs such as Beyblade, Yo-Kai Watch and Frozen, which helped Hasbro increase revenue. In 2011, Beyblade accounted for 11.1% of the total net revenue. In 2016, Frozen helped Hasbro increase Girl's sector revenue by 50%. Understanding these historic patterns, we expect that Hasbro to acquire new IPs to generate revenue in the forecast period.

Traditional Toys Market Growth Rate									
Region	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
US/Canada	3.48%	2.15%	1.45%	1.38%	0.91%	1.34%	1.00%	-0.50%	-1.00%
EU	2.75%	2.90%	2.39%	2.08%	1.84%	1.47%	1.17%	0.87%	0.57%
Asia Pacific	4.93%	5.48%	5.84%	5.95%	5.96%	5.90%	5.48%	5.01%	4.53%
Latin America	-3.98%	3.34%	3.66%	3.97%	3.94%	3.91%	3.86%	3.81%	3.74%
E&L		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Revenue Break	2016	2017	2018	2019	2020	2021	2022	2023	2024
US	51%	50.50%	50.00%	49.50%	49.00%	48.50%	48.00%	47.50%	47.00%
EU	28%	27.40%	26.80%	26.20%	25.60%	25.00%	24.40%	23.80%	23.20%
Asia Pacific	7%	7.70%	8.40%	9.10%	9.80%	10.50%	11.20%	11.90%	12.60%
Latin America	9%	9.40%	9.80%	10.20%	10.60%	11.00%	11.40%	11.80%	12.20%
E&L	5%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Total	100%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Weighted average		2.87%	2.46%	2.43%	2.17%	2.32%	2.07%	1.26%	0.94%

Source: Team Analysis, NPD



MARKET PROJECTION

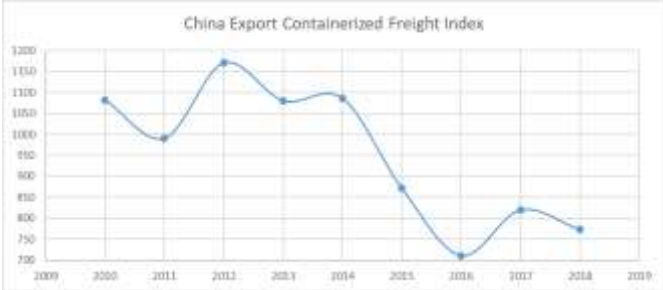
We believe that Hasbro's major traditional toys & games business will be negatively impacted by the strong digital games market growth. We project that Hasbro's major markets will have a downward trend in growth rate from 2.97% in 2017 to 0.94% growth rate in 2024. We calculated Hasbro's major market growth rate by taking the weighted average of each of Hasbro's lines of businesses in different areas such as Asia Pacific, US and Canada, and Latin America, and the traditional toys & games growth rate in those markets. The results indicate that Hasbro's major market will keep growing in the future, but the growth rate will slow. The final revenue projection is as shown below.

Revenue Breakdown	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Revenue	5019.822	5371.16	5681.83	6170.13	6158.60	6579.97	6568.23	6757.11	6787.76
Growth Rate	12.87%	7.00%	5.78%	8.59%	-0.19%	6.84%	-0.18%	2.88%	0.45%
Franchise Brands	2327.668	2556.86	2480.16	2628.97	2523.81	2650.00	2517.50	2618.20	2539.65
Growth Rate	1.85%	9.85%	-3.00%	6.00%	-4.00%	5.00%	-5.00%	4.00%	-3.00%
Partner Brands	1412.77	1340.15	1407.16	1547.87	1470.48	1573.41	1557.68	1573.25	1620.45
Growth Rate	28.28%	-5.14%	5.00%	10.00%	-5.00%	7.00%	-1.00%	1.00%	3.00%
Hasbro Gaming	813.433	979.54	1155.85	1335.01	1508.56	1666.96	1800.31	1899.33	1956.31
Growth Rate	22.82%	20.42%	18.00%	15.50%	13.00%	10.50%	8.00%	5.50%	3.00%
Emerging Brands	465.951	494.61	502.03	512.07	524.88	540.62	559.54	581.93	608.11
Growth Rate	16.93%	6.15%	1.50%	2.00%	2.50%	3.00%	3.50%	4.00%	4.50%
Hasbro's Major Market Growth Rate		2.87%	2.46%	2.43%	2.17%	2.32%	2.07%	1.26%	0.94%

Source: Team Analysis, Bloomberg

APPENDIX 10: COGS ANALYSIS

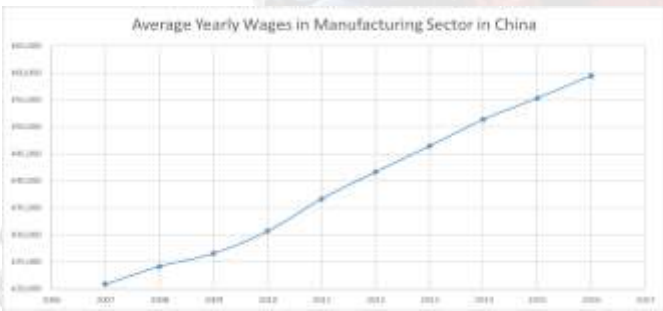
We recognize the main factors in cost of goods sold include 2 major components: freight and product costs. According to our research, we believe paper, plastic, labor and electronic devices are the four biggest materials Hasbro’s suppliers needs. Plastics are the main materials which contribute 45% of cost. Paper, freight, labor and electronic devices contribute 30%, 10%, 5%, 10%, respectively. According to Hasbro’s supplier list, most suppliers are based in China. Therefore, the material price data we used were of Chinese market data.



Source: Bloomberg



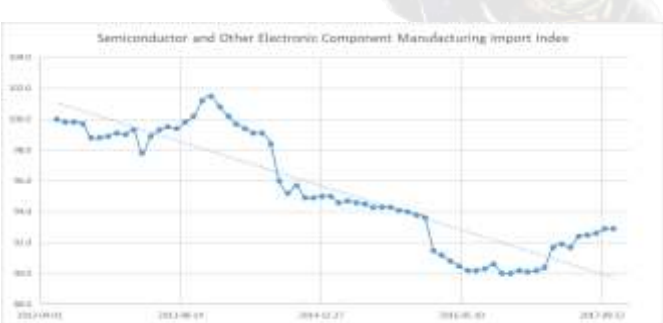
Source: Bloomberg



Source: statistics.com



Source: plasticsnews.com



Source: FRED

FREIGHT

Since the majority of Hasbro’s suppliers are located in China, the China Export Container Rate was used as the ocean freight cost. Due to demand slowdown, and steady supply growth the freight price has been decreasing these past few years. This trend should continue for the next two years and then start decreasing with a slower rate of 1%.

PAPER

The toys & games industry is using wood pulp for manufacturing. The price of Bleached Hardwood Kraft Pulp (BHKP) is stable because of strong production. Since there are few external factors that can adversely affect production, the paper price should be stable in next few years.

LABOR

Chinese labor costs have been increasing significantly for the past few years. Hasbro has suffered and tried to mitigate the risk by moving 30% of the production from China. That’s why we used 8.39% of labor growth in 2018 and 2019 instead of the historical wage growth rate of 12.39%. Since Hasbro will move to other low cost countries, its labor costs should decrease. Therefore, we expect the labor costs will decrease from 2020 to 2024.

PLASTIC

Plastic prices dropped significantly in 2011 because of overinvestment in production. We expect the market to stabilize and prices to normalize within 5 years. The price of plastics has bottomed out right now, but we expect the price will increase at rate of 3% in 2018 and 2019 and then become stable.

ELECTRONIC DEVICE

The semiconductors technology has become more and more mature. Therefore, the price should slowly drop over time. We calculated the average annual growth from 2012 to 2017. We believe in the long run, the price change will follow this trend and decrease annually in 2018-2019 at 1.34% and become stable in 2020-2024.

Year	2018-2019	2020-2024
Freight	-3.24%	-1.00%
Paper	0.11%	0.10%
Labor	8.67%	-5.00%
Plastics	3.00%	0.00%
Electronic Device	-1.34%	0.05%
COGS Growth Rate	1.36%	-0.32%

APPENDIX 11: BETA,WACC AND LONG-TERM GOWTHRATE

BETA

We calculated Hasbro’s Beta based on 5 year’s daily returns of Hasbro and S&P 500 Index. From the result, we can observe that R-square is 0.188, Beta(Slope) is 0.853, t-Stat is high with a low P-value, which means Hasbro has low correlation with the market and less volatility/sensitivity to the benchmark.

Regression Statistics			Coefficients	Standard Error	t Stat	P-value
Multiple R	0.434	Intercept	0.00043	0.00038	1.148	0.251
R Square	0.188	S&P	0.85275	0.04994	17.074	6.02926E-59
Adjusted R Square	0.188					

WACC

We took the average of cash paid for interest over long-term debt in the last 7 years, and the most recently issued bonds after tax yields to calculate cost of debt.

Coupon	Maturity Date	Offer Date	Offering Amt. (\$mm)	Yield after tax
3.15	May-15-2021	May-08-2014	300.0	3.33%
3.5	Sep-15-2027	Sep-08-2017	500.0	2.20%
5.1	May-15-2044	May-08-2014	300.0	2.84%
Average				2.79%

We took the average of CAPM and the two-stage golden growth model to calculate cost of equity. In the CAPM model, we used Beta from our previous calculation and a market premium of 8.00% (from Bloomberg) and the 10 year treasury bond yield as the risk free rate.

CAPM Model		Two- Stage Golden Growth Model	
Beta β	0.8528	Current Dividend	2.28
Risk-Free Rate	2.55%	Growth Rate g_1	12%
Expected Market Return	8.00%	Growth Rate g_2	5%
Cost of Equity	7.20%	Number of Short Growth Years	7
		Share price	92.45
		Cost of equity	8.51%

We applied 2016’s debt from the 10-K and valuation date’ market capitalization to calculate the final WACC, resulting in a WACC of 7.44%.

LONG-TERM GROWTH RATE

We adopted three major projections from World Bank, IMF, and Federal Reserve Board members and Federal Reserve Bank presidents to predict the future economy, but only used the latter source for the U.S. economy. We averaged the numbers from each source to get the economic outlook for 2017, 2018 and 2019.

We then integrated the projection with the revenue breakdown of Hasbro in 2016 and adjusted it based on our own assumptions. In the long term, our projections of weights are 45%, 21%, 15%, 14%, and 5%, for U.S., European Union, Asia Pacific, Latin America, and Entertainment & Licensing. On one hand, we expect Hasbro will have more potential in emerging markets. Also, we expect Latin America will achieve higher growth due to higher projections for its economic growth. Therefore, we increased the weight of Asia Pacific and Latin America to 15% and 14%, respectively. On the other hand, we anticipate the revenue in EU will decrease due to the political impact of Brexit and long-sagging retail and consumption in toys industry, and adjusted the weight to 21% accordingly. For the U.S. market, with strong growth in emerging markets, and steady consumer behavior and revenue trends domestically, we project the revenue distribution decreasing to 45%. As a result, we calculated the weighted average growth rate of each geographic sector, and got a long-term growth rate of 2.63%.



		United States	Europe	Asia Pacific	Latin America	E&L
Revenue Breakdown		45.00%	21.00%	15.00%	14.00%	5%
Long-Term GDP Growth		1.8	1.2	6	3	5
Weighted Average	2.63%					

APPENDIX 12: EV/EBITDA MULTIPLE ANALYSIS

COMPARABLE VALUATION

We used EV/EBITDA (Enterprise Value / Earnings before Interest, Tax, Depreciation, Amortization) for the comparable valuation. After getting EBITDA from the Income Statement (EBIT + Depreciation and Amortization), we calculated Enterprise Value (EV) by the following formula: $EV = \text{Market capital} + \text{Preferred Equity} + \text{Total Debt} - \text{Cash \& Equivalent}$.

We chose industry peers based on product and target customer similarities, then compared three major ratios: 5-yr Revenue Growth, Operating Leverage (EBITDA Margin), and Debt to Equity Ratio to eliminate the incomparable companies. But the results may be limited for the following reasons: First, the U.S. toy industry is small with only a limited number of companies comparable to Hasbro. Second, we introduced foreign companies since they have some similarities to Hasbro. Bandai Namco, a Japanese entertainment company, operates in the same industry as Hasbro, but in the Japanese markets. However, they do share the same target customers, children and teenagers. It is also worth mentioning that we first included companies such as Brunswick, Harley-Davidson, and Polaris since they also sell consumer products as well. But due to big differences in the products and target customers, we removed them from the final peer group list.

Consequently, choosing a company in a different region with different products has some shortcomings, making comparable valuation less precise than the DCF model. Therefore, we only weighted the EV/EBITDA comparable valuation as 10% of our final valuation. The results do offer great insights into the value of the stock since it is based on the value of its industry peers. For example, Hasbro has the highest EBITDA margin tied with Alpha Group, who focused on animation in China. The whole industry is less leveraged by debt except for Tomy. Although Hasbro grew faster than its domestic peers, the company grew slower than its foreign peers.

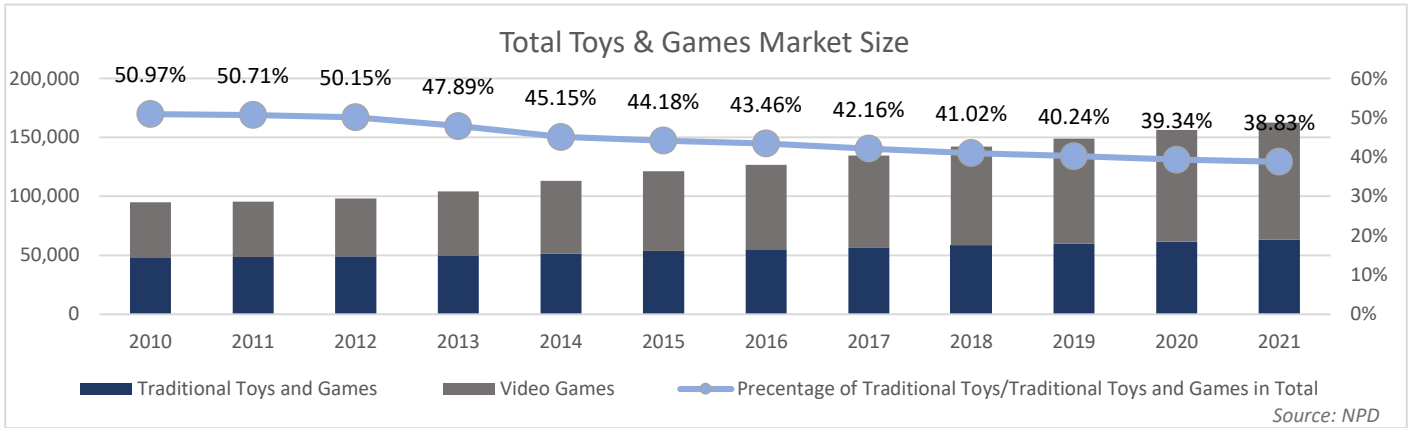
Hasbro has an EV/EBITDA of 12.15 which is lower than its main competitor Mattel’s multiple of 16.34 and also lower than its peer’s average multiple, which is 13.59. We used the peer average ratio to calculate the implied stock price. The implied price of Hasbro using the peer average EV/EBITDA is \$103.61, which is higher than current price of \$92.45.

Company Name	Adjusted EV	EBITDA T12M	EV/EBITDA	Implied Price	Hasbro 12 Month TTM Data	
					Shares Outstanding	124.5
Median	5508.52	571.37	9.64	\$72.01	EV	13200
Hasbro	12110.31	996.46	12.15	\$92.11	EBITDA	996
Mattel	7919.31	484.66	16.34	\$125.60	Cash	1732
Tomy	1430.64	188.53	7.59	\$55.59	Minority	0
Bandai	5508.52	746.05	7.38	\$53.95	Total Debt	1882
Spin Master	4417.61	255.23	17.31	\$133.35	Market Cap	11515
Alpha Group	3145.79	326.00	9.65	\$72.08		
Goldlok Toys	805.68	32.60	24.71	\$192.60		
Average	5048.27	432.79	13.59	\$103.61		

Company Name	Debt/Equity	EBITDA Margin	5 Year Average Revenue Growth
Median	39%	14%	3%
Hasbro	100%	19%	3%
Mattel	80%	14%	-3%
Tomy	200%	7%	-2%
Bandai	1%	12%	6%
Spin Master	32%	13%	27%
Alpha Group	39%	19%	27%
Goldlok Toys	5%	15%	3%

APPENDIX 13: INDUSTRY PROJECTION

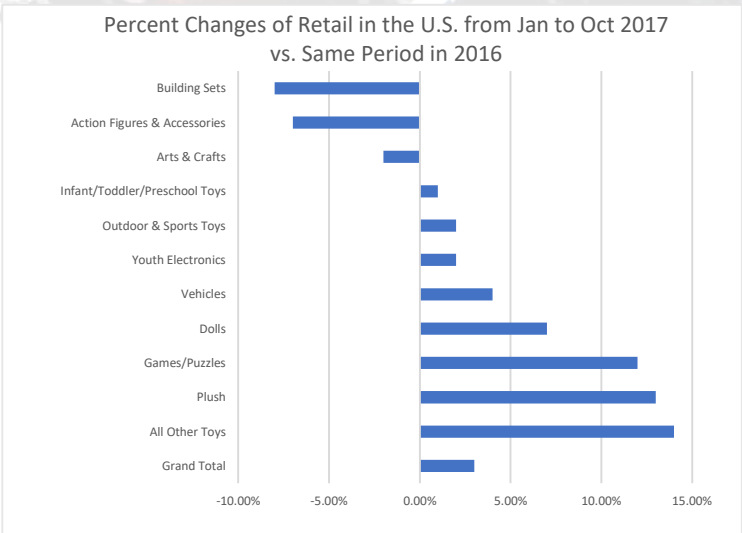
GENERAL TREND OF THE INDUSTRY – TRADITIONAL TOYS and GAMES vs. VIDEO GAMES



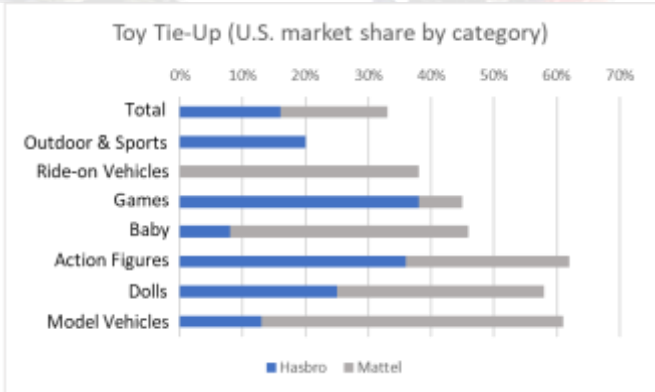
We analyzed the major markets that Hasbro covers and presented the trend of Traditional Toys and Games vs. Video Games in Asia Pacific (China and India), USA and Canada, European Union (United Kingdom, Germany, France, and Russia), Latin America (Brazil, Mexico and Argentina). It is worth mentioning that although Hasbro does not have a strong presence in Asia Pacific, we do expect it will strategically focus on those markets due to their greater potential. As for the general trend in the industry, traditional toys and games have been growing for the past 7 years and will continue to expand in the future at a steady pace. However, since video games develop faster these days, they have become a major competitor for traditional toys and games, and may evolve to become major substitutes in the future. The weighted percentage of traditional toys and games is projected to decrease from 51.0% in 2010 to 38.8% in 2021. Therefore, it is critical for Hasbro to cater to the digital trend, otherwise it may lose significantly in the near future.

VOLATILE PERFORMANCE IN SUBGROUP

Traditional Toys and Games can be further categorized into more subgroups and each group may have different performances each year since the trend in this industry is so volatile. As of October 2017, toy industry sales in the U.S. reached \$11.95 billion in total since January, growing 3% compared to the same period in 2016. Games/Puzzles have been outperforming for the past few years, indicating a trend in demand for more face-to-face play experiences. Toy companies can attract a broader customer base by offering sociable items that cannot only attract children, but also adult customers.



Source: The Toy Association

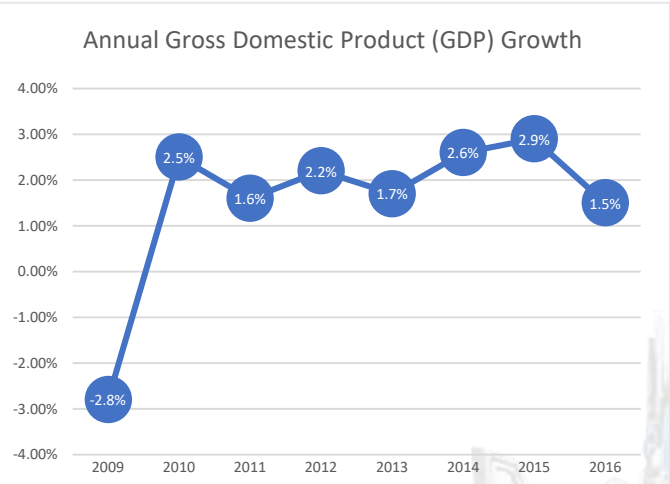


Source: Wall Street Journal

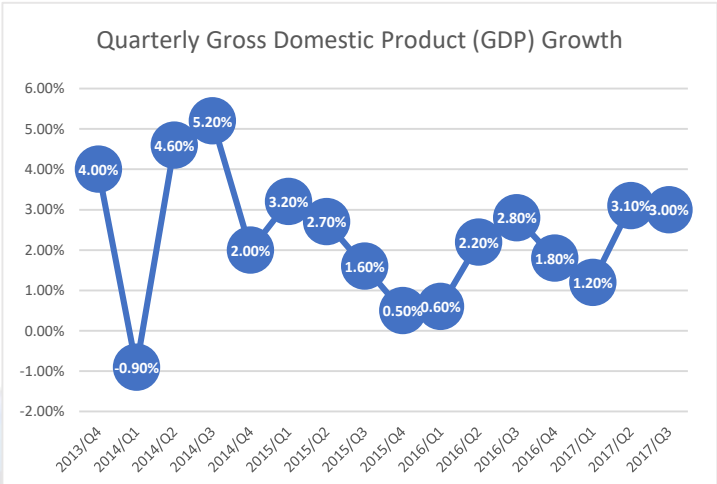
In comparison to its direct competitor, Mattel, Hasbro has several advantages in certain areas, but also some disadvantages. For Games, Action Figures, and Outdoor & Sports, Hasbro has absolute advantages. It is worth mentioning that Hasbro has been producing the most games in the market, which realized the most growth in the past years. We anticipate that Hasbro will continue to strengthen its advantage in the industry and remain relatively stable in its market size of other less favorable categories.

APPENDIX 14: ECONOMY PROJECTION

U.S. SECTOR



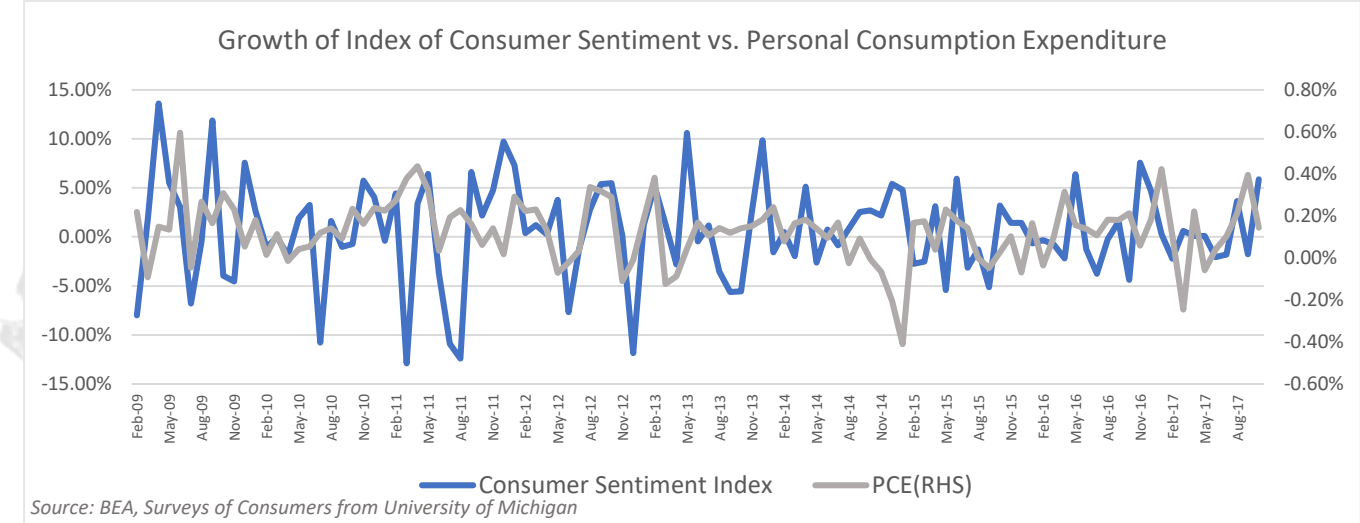
Source: BEA



Source: BEA

As we observe from Figure 1, after the unprecedented Quantitative Easing turned the tide in the financial crisis, the U.S. GDP never fell out of the 1.5% - 3% range. From the quarterly GDP in Figure 2, although the annual growth of GDP decreased slightly in 2016, the economic growth remained strong in the third quarter of 2017, realizing 3% in growth, exceeding analysts expectations. The Federal Reserve officially raised the benchmark rate by 0.25% on December 13th, the third increase in 2017, signaling a healthy growth in the economy but potentially resulting in a moderating economy in the future.

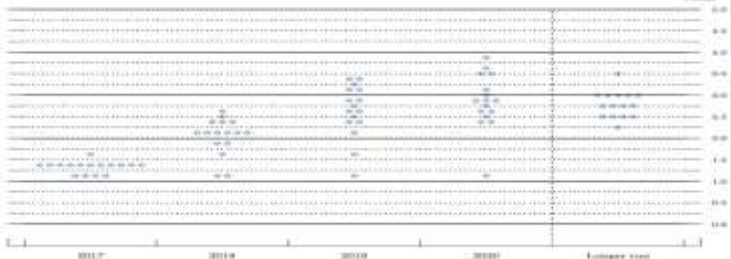
CONSUMER CONFIDENCE



From the Consumer Sentiment Index, we observe a high willingness to spend and strong confidence in the economy, which again strengthened our judgement about the U.S. economy. On the other hand, the personal consumption expenditure decreased recently, which may potentially impact Hasbro's business in the U.S. market.

The U.S. INTEREST RATE

On December 16th, 2008, the Federal Reserve adjusted the interest rate to 0.25% and left it at this level until December 16th, 2015. Moving forward, we believe the Fed will continue to raise the interest rates to deal with the rising CPI. In line with the expectations for 2017, the Federal reserve raised the benchmark three times, on March 16th, June 15th, December 13th. Based on FOMC participants' assessments of appropriate monetary policy, the preponderance policy rate will be 2% - 2.25%, 2.25% - 3.25%, 2.75% - 3% in 2018, 2019, and 2020 respectively, and remain 3% in long run.



Source: Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents

APPENDIX 15: KEY FINANCIALS

Liquidity Analysis	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Industry Median	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Cash Ratio	0.88	0.50	0.83	0.92	0.79	0.79	0.98	0.99	0.99	0.99	0.89	0.89	0.90	0.90
Current Ratio	2.61	1.82	2.53	2.69	1.99	1.95	2.21	2.22	2.23	2.23	2.20	2.20	2.21	2.21
Financial Risk Analysis														
Total Debt to Equity	1.08	0.81	1.20	1.00	0.91	0.49	0.88	0.88	0.89	0.89	0.70	0.70	0.70	0.70
Interest Coverage Ratio	6.06	4.42	6.82	7.13	8.09		7.56	7.43	7.28	7.29	9.09	9.07	9.09	9.06
Net Debt / EBITDA	1.10	1.10	1.16	0.87	0.47	0.45	0.15	0.12	0.09	0.08	-0.05	-0.05	-0.07	-0.07

LIQUIDITY AND FINACIAL RISK ANALYSIS

Even though Hasbro has acquired companies several times in the past, the past 5-year cash ratio and quick ratio of Hasbro still indicates it has a strong liquidity profile. From the table, we can see that in the last five years, Cash ratio, Current ratio, and Quick ratio have always been above the industry median, indicating that Hasbro has strong liquidity. Even though these three ratios have a deceasing trend, current ratio changed from 2.61 in 2012 to 1.99 in 2016, we believe that global companies like Hasbro may bring a portion of their overseas capital back to the U.S. due to the tax-reform, resulting in an increase of liquidity for Hasbro in the future. Cash ratio will increase due to increasing revenues in the future, but in 2021 the cash ratio will decrease due to payment of debt. Overall, Hasbro will be able to keep these three ratios above the industry median for the next several years. Other than strong liquidity, Hasbro also has a very solid capital structure. Hasbro’s Debt to Equity ratio changed from 1.07 in 2012 to 0.91 in 2016, indicating that debt has decreased. Hasbro also has over 8x interest coverage ratio, indicating that the company has strong debt management ability. A decreasing net debt / EBITDA, 1.09 in 2012 to 0.46 in 2016, illustrates the company’s ability to meet its interest payments and debt obligations is increasing.

Profitability Analysis	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Industry Median	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Operating Margin	13.49%	11.44%	14.85%	15.56%	15.70%	8.75%	14.94%	14.43%	13.74%	13.74%	13.70%	13.66%	13.61%	13.56%
Return on Asset	7.95%	6.56%	9.31%	9.77%	11.24%	6.97%	10.02%	10.44%	10.18%	10.16%	10.78%	10.74%	10.75%	10.70%
Return on Equity	22.98%	17.95%	26.42%	28.88%	31.27%	13.59%	26.94%	27.84%	27.43%	27.45%	26.73%	26.68%	26.74%	26.60%

Hasbro ROE Decomposition						ROE Decomposition 2016		
	2012	2013	2014	2015	2016		Hasbro	Mattel
Tax Burden	0.74	0.81	0.77	0.75	0.80	Tax Burden	0.80	0.78
Interest Burden	0.83	0.77	0.85	0.86	0.88	Interest Burden	0.88	0.79
Operating Margin	13.32%	11.21%	14.80%	15.76%	15.74%	Operating Margin	15.74%	9.52%
Asset Turnover	0.97	0.94	0.96	0.96	1.02	Asset Turnover	1.02	0.84
Financial Leverage	2.89	2.74	2.84	2.96	2.78	Financial Leverage	2.78	2.70
ROE	23.04%	18.07%	26.51%	28.87%	31.15%	ROE	31.15%	13.21%

PROFITABILITY ANALYSIS

Hasbro’s ROE has been increasing over the last 5 years, from 25% in 2012 to 32% in 2016, increasing 6% annually in the last 5 years. After splitting ROE into 5 elements, we observed that the operating margin played the most important role in the ROE increasing. Operating margin increased from 13.35% in 2012 to 15.7% in 2015, which indicates Hasbro did a great job on saving management costs. From the comparable table, we can observe that Hasbro’s main competitor, Mattel, has much lower ROE, approximately 13.7%. mainly due to lower operating margins. Mattel’s operating margin was only 9.2% in 2016, which is significantly lower than Hasbro’s 15.7%, and industry median 13.6%. Hasbro has much more potential for higher profitability than Mattel.

Hasbro	2012	2013	2014	2015	2016	Industry Median		Hasbro	Mattel	Industry Median
Days Inventory Outstanding	72.12	72.33	73.77	78.58	73.75	73.75	Days Inventory Outstanding	73.75	75.75	73.75
Days Sales Outstanding	93.66	94.68	93.11	94.63	92.01	55.17	Days Sales Outstanding	92.01	75.8	55.17
Days Payable Outstanding	30.82	36.14	44.32	47.96	53.47	40.09	Days Payable Outstanding	53.47	82.27	40.09
Cash Conversion Cycle	134.96	130.87	122.56	125.25	112.30	74.25	Cash Conversion Cycle	112.30	69.28	74.25

CASH CONVERSION CYCLE

Hasbro has longer cash conversion cycles which means it will take a longer time to convert resources to cash flow. Hasbro’s cash conversion cycle has a decreasing trend from 134 in 2012 to 112 in 2016. This is due to an increase in days payable outstanding from 30.8 in 2012 to 53.5 in 2015, meaning Hasbro has more time to pay suppliers. Compared to the cash conversion cycle of the industry median of 74.2, Hasbro’s is 112.3, showing Hasbro’s less efficient than other industry peers, such as that of Mattel, 69.2. This indicates that Hasbro may be weak in supply chain management. This is a potential risk for Hasbro that may adversely affect it’s future revenue. The decreasing trend does show that Hasbro is putting in effort to lower its cash conversion cycle.

APPENDIX 16: MONTE CARLO SIMULATION

We used the Monte Carlo simulation to predict the possible price change and identify the most sensitive variable for Hasbro in our assumption. We tested 1) revenue growth rate, 2) long-term cash flow growth rate, and 3) the discount rate. The model proved that the price is most affected by the long-term growth rate. Combined with our assumption that revenue and free cash flow will grow in the long-term, we applied random growth rates from a specific range to simulate a range of stock prices. After running 10,000 simulation paths, the result indicates a 47.89% probability that the price of Hasbro will be above \$107. There is a 50.20% probability the price will be between \$92.45 and \$107. The probability of the price being lower than \$92.45 (current price) is only 1.91%.

VARIABLE ASSUMPTION:

Variable	Worse Case	Base Case	Better Case
2018 Revenue Growth Rate	-5.00%	5.78%	7.27%
2019 Revenue Growth Rate	-5.00%	8.59%	11.04%
2020 Revenue Growth Rate	-5.00%	-0.19%	2.32%
2021 Revenue Growth Rate	-5.00%	6.84%	9.47%
2022 Revenue Growth Rate	-5.00%	-0.18%	2.51%
2023 Revenue Growth Rate	-5.00%	2.88%	7.94%
2024 Revenue Growth Rate	-5.00%	0.45%	3.23%
Long-term Growth Rate	2.00%	2.63%	3.00%
WACC	9.00%	7.44%	6.00%



Simulation Statistics	
Trials	10,000
Base	\$104.39
Mean	\$106.85
Median	\$106.46
Standard Deviation	8.11
Skewness	0.22
Kurtosis	-0.53
Minimum	\$87.99
25% Percentile	\$100.78
75% Percentile	\$112.57
Maximum	\$130.23

APPENDIX 17: HASBRO vs. OTHER COMPETITORS

Company Name	Market Cap	5 Year Revenue Growth Rate	Operating Margin	ROE	Cash Conversion Cycle	D/E ratio	Current ratio	Glassdoor Score	Awareness From Survey
Hasbro	11.5B	3.21%	15.70%	31.15%	112.3	0.91	1.99	3.8	#2
Mattel	5.3B	-2.37%	9.50%	13.21%	69.28	0.89	1.95	3.3	#3
LEGO	N/A	15.16%	32.81%	47.09%	84.28	0.04	1.99	3.7	#1
Jakks	67.47M	0.84%	2.40%	0.87%	105.62	1.51	2.94	2.7	#4

Assessment	Profitability	Growth	Financial Safety	Brand Awareness	Efficiency	Employee Satisfaction	Weighted Average	Legend	
Hasbro	4	3	4	4	1	4	3.35	Very Strong	5
Mattel	1	2	3	3	5	3	2.7	Strong	4
LEGO	5	5	5	5	4	5	4.85	Medium	3
Jakks	1	1	2	1	2	1	1.25	Weak	2
Weight	20%	20%	10%	20%	15%	15%	100%	Very weak	1

We analyzed the major competitors in 6 different aspects and used a weighted average score to rank them. These 6 aspects include profitability, growth, financial safety, brand awareness, efficiency, and employee satisfaction. We assessed profitability by operating margin and ROE, Growth by the 5-year revenue growth, financial safety by market capital, D/E ratio, and current ratio, brand awareness by result from our survey, efficiency by cash conversion cycle, employee satisfaction by Glassdoor review score. We measure these elements from very strong (5 score) to very weak (1 score). For example, since LEGO has the highest operating margin of 32.8% and ROE of 47.09%, it received the highest score of 5 in profitability. Furthermore, Mattel has the lowest 5-year revenue growth rate of -2.37%, therefore received the lowest score of 1. We used the weighted average of these aspects to calculate the final score. We weighted these aspects from the most important to least important, which profitability, growth, and brand awareness are 20%, efficiency and employee satisfaction are 15%, and financial safety is 10%. Taking the weighted average for all scores resulted in Hasbro (3.35), Mattel (2.7), LEGO (4.85), and Jakks (1.25). The result shows that Hasbro and LEGO have an advantage and leading positions in the competitive environment.

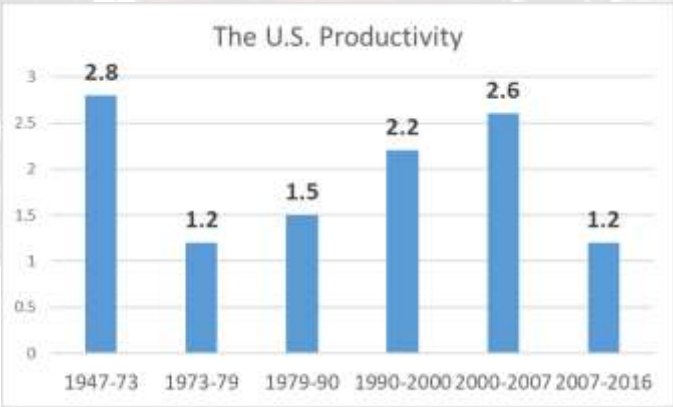
APPENDIX 18: TAX REFORM

The new tax reform is the biggest tax reduction bill in the last 30 years. The major change is the reduction of corporate tax from 35% to 20%. The existing corporate tax rates are 25% in Europe and China, and 30% in Japan. Apparently, the new corporate tax rate will make the U.S. become a low-tax country, from once being the highest-tax country. The tax reduction will help U.S. companies increase net income, further increase the stock price and prices of other financial assets. Stock price of Hasbro, of course, will also benefit from it. Moreover, the tax reform will also help U.S. companies with a global presence such to increase their competence.

It is worth mentioning that the reform will make another big change, providing incentives for U.S. companies to repatriate cash by paying only a 15.5% one-time tax. Even though there is \$2.6 trillion in cash outside the U.S., we do not expect most companies to bring back this capital. Non-financial U.S. companies studied by Moody's hoarded \$1.84 trillion in cash outside the U.S. at the end of 2016. That's up 11% from 2015 and nearly two and a half times the 2008 levels. The reason these companies don't invest in the U.S. economy is that the U.S. productivity growth is only 1.2%, the worst growth rate throughout U.S. history after World War II. Lacking investment opportunities and low productivity may discourage companies to repatriate.

Since most of Hasbro's cash and cash equivalent remain overseas, it may bring part of the capital back to the U.S. for new investment opportunities. Though it is also likely that they may use the money to boost stock performance, such as paying more dividends and buying back more.

Furthermore, in the short term, the reduction in tax from working-class families will create more disposable income, which will boost the U.S. economy and increase sales especially in consumer products. But for the long-run, the tax on working-class families will eventually increase since the government has to find a way to fill the gap between government expenses and taxable income. We believe that will hurt sales of consumer products in the long term.

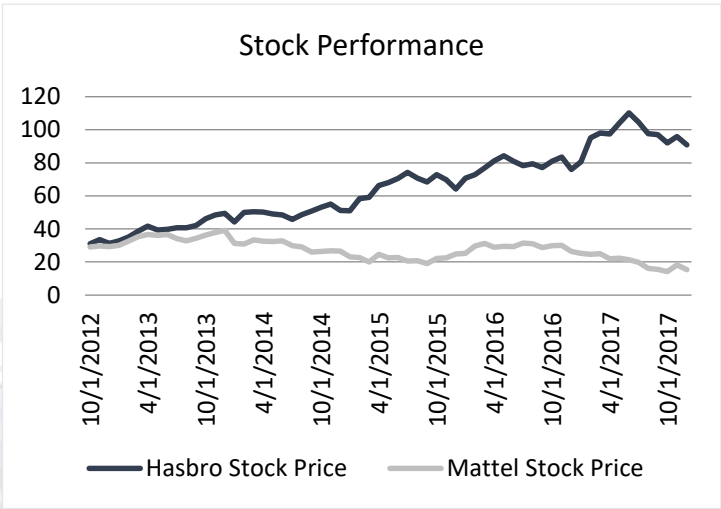


Source: Bureau of Labor Statistics

APPENDIX 19: HASBRO vs. MATTTEL ANALYSIS



Source: Bloomberg



Source: Bloomberg

Hasbro and Mattel seem to be alike, sharing similar game categories and product lines. But if we deep into them, they are two very different companies. These two companies' revenue has been steadily increasing from 2010 to 2014. But from 2014 to the present, Hasbro's revenue has been consistently increasing and we project the trend will last for the next 7 years. On the other hand, Mattel's revenue has been decreasing since 2014 and eventually caught up by Hasbro in 2017. The improper management led to a decrease in Mattel's revenue, which further endanger their cash generating abilities, making them cut dividend to almost 1/3 of the previous level (from \$0.38 to \$0.15). If Mattel cannot turn it around, it will continue to dwindle in the industry. If stock price of Mattel stock hits \$15, it may even trigger the M&A between Hasbro and Mattel.

Target consumers

Hasbro and Mattel have different target consumers. Hasbro has a much more broadened age range that covers almost all age segments. With products enjoyed by younger customers such as Transformers toys, Marvel action figures, Nerf, and products for adults such as Monopoly and Magic: The Gathering, Hasbro seized customers with different ages and preferences. Moreover, with strategies such as Brand Blueprint and Expanding Our Audience, Hasbro increases the brand awareness through comprehensive media such as movies, all-age toys, amusement parks and music, constantly attracting all-age consumers. On the other hand, most of Mattel's products such as Barbie, Wheels, Fisher-Price, and American Girl only cover consumers with an age from 0 to 7.

Storytelling Strategies

Hasbro started investing in the Transformers movie in 2007, and has been producing 5 other Franchise Brand movies including Transformers and My Little Pony. These movies helped Hasbro to boost its revenues significantly. In comparison, Mattel has not yet release any of its own brand movies, even though they are scheduled to release Barbie and Monster High in 2018. By securing the first-mover-advantage, Hasbro can elevate its eco system by telling more stories and creating more characters.

Partnership Maintenance

Hasbro adapted to the trend and acquired only famous IP such as Marvel, Star Wars, Disney Frozen, and Yo-Kai Watch. These IPs have high brand awareness gained by frequent and high quality movies release these days. On the contrary, Mattel only acquired DC Comic and Jurassic Park, IPs that did not do a better job than Hasbro's IPs.

Company Culture

Hasbro has been communal, which enables people to act and feel more comfortable when interacting with their peers, allowing them to be more genuine and more collaboratively oriented. This approach will help to increase the synergy within Hasbro, benefiting productivity in the long term. On the other hand, Mattel's culture has been effected as a consequence of shifts in its leadership team, which aroused resentments and fragmentation among departments and employees.

APPENDIX 20: MERGERS & ACQUISITIONS

We think the merger between Hasbro and Mattel will likely not happen for the following reasons:

Resistance from Management of Mattel

Mattel hired a new CEO in February 2017, who in turn hired a new CFO and CTO. If the merger goes through, new hires in senior management risk losing their positions. They will fight the merger for job security. Also, since the new management recently joined the company, we assume they want to prove themselves by doing everything in their power to turn the company around. They wouldn't want to simply accept the merger and lose the opportunity to prove their value.

Shareholder Concerns

Mattel's shareholders are not satisfied with the current stock performance. One year ago, their price was over \$30 per share. They are unlikely to accept a deal valued at their depressed stock price and Hasbro is unlikely to offer a price close to Mattel's stock price from one year ago.

Mattel is supposed to be owed \$135 million in accounts receivable before Toy "R" Us's Chapter 11 filing. However, Toys "R" Us's bankruptcy will expose them to possible loss due to uncertainty in recovery of accounts receivable. Mattel is also facing a lawsuit by MGA Entertainment, who claimed \$1 billion compensation to settle the case. Based on the history, MGA has a good chance to win, which will materially affect Mattel's next year's earnings. Consequently, Hasbro's shareholders will not like such risks and will calculate all factors in the valuation of the merger.

Obstacles from Disney

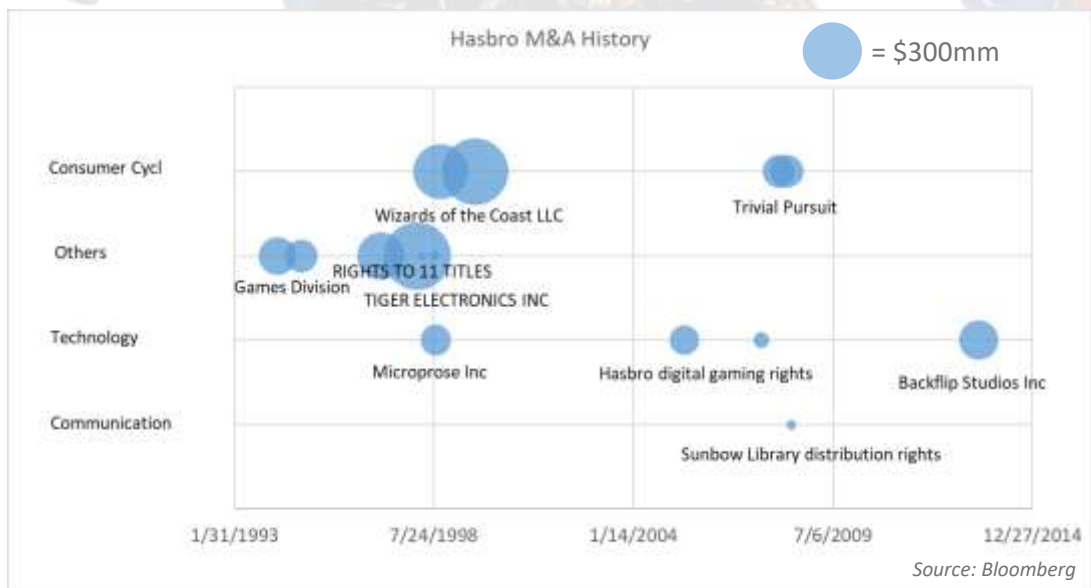
Disney opposed any move from Hasbro if it reduced Disney's leverage over its main licenses of IPs. They've opposed mergers twice in the past. The first was when Hasbro offered to acquire DreamWorks. Disney threatened to cancel the transfer of the Princess license to Hasbro if it continued to process the M&A. The same happened when Hasbro offered to acquire Lions Gate. If Hasbro merges with Mattel, it will jeopardize Disney's bargaining power. Therefore, it is likely that Disney will do whatever it can to stop the merger.

Retailers Maintain Bargaining Power

The three largest customers of Hasbro are Walmart, Target and Toy "R" Us. They want to leverage in bargaining power. In order to do so, they want their inventory diversified with different vendors, instead of being monopolized by Hasbro. They can level the playing field by inviting other toy manufactures to put more products on the shelves and reduce Hasbro's shelf space and position. As a result, retailers will not be in favor of Hasbro's offer to merge with Mattel.

Antitrust Issues

This horizontal integration always requires approval from Federal Trade Commission and European Union. European companies will likely oppose the merger. If the case has to be appealed to the European Court of Justice, it will take years to see the final results.



Hasbro conducted 21 M&As in its history, with half the cases fully financed by cash, half undisclosed, and one paid by cash and debt. Since 2000, Hasbro changed from acquiring Cyclical Consumer Goods & Services companies to Technology and Communication targets. The recent case of Backflip in 2013 is a good example showing that Hasbro is actively riding on the digital trend and catering to the increasing needs of digital games. We anticipate the future M&A trend will not change since technology will play a vital role in the toys & games industry.

APPENDIX 21: TWO INTERVIEWS FOR MERGER WITH MATTEL

INTERVIEW WITH MR. LUTZ MULLER

On January 26th, we Skype interviewed Mr. Lutz Muller, President of Klosters Trading Corporation for his point of view regarding the potential M&A case between Hasbro and Mattel and key aspects to consider for our research. The insight from this interview elevated our analysis based on the following:

Concerns From European Trade Commission

Hasbro's potential acquisition of Mattel could face problems with the European Trade Commission; especially in the acquisitions of Barbie, American Girl, Monsters High and DC Comics, which could represent a monopoly in that sector. However, Hasbro could let go of these brands, which overall are worth \$1.68B and continue with the acquisition of the rest of the business for \$4.9B. This should not affect Mattel's potential in any major way, as Fisher Price would be a very attractive brand for Hasbro.

Gap Between the Bid Price and Offer Price

Based on Hasbro's past interest in Mattel, Mattel's investors could expect a price of \$25 for Mattel stock in an acquisition. But, Mattel's stock has taken a hit because of ongoing lawsuits and improper operations. If Mattel's stock languishes around \$15-\$18 per share, the possibility of an acquisition would increase.

Biography for Mr. Lutz Muller

- During 1984 – 1987, Mr. Lutz served as CEO for DKSH [formerly Diethelm + Keller] U.S.A.. After brokering a deal with Walmart for toys with new concept toys, he successfully turned around DKSH [formerly Diethelm + Keller] U.S.A., and became the Activity Kit Category we know today.
- From 1987 up until now, Mr. Lutz served as President for Klosters Trading Corporation, a consulting company founded by him, which provides services for financial entities in sales and marketing.

INTERVIEW WITH HILLARY GREENE

On January 24th, we interviewed Professor Greene in person at the UConn School of Law. With the benefit of Professor Greene's insights and looking at the toy industry broadly, we don't believe a Hasbro-Mattel merger would be unduly disruptive. However, looking at the toy segment that is narrowly focused on the entertainment industry, a Hasbro-Mattel could be disruptive. We also expanded our analysis in other directions.

Direct Comparisons Based on Experience

Past Mergers and the effects on the industry should be considered. Overall past merges have been well accepted by Federal Trade Commission (FTC).

Market Shares and Concentration Should be Considered

Market concentration is one of the most influential aspects when evaluating mergers. FTC would usually use the Herfindhal-Hirschman Index (HHI), to classify the markets into Non-Concentrated Markets (HHI<1500) and Highly Concentrated Markets (HHI>2500). We assume the HHI of the industry should be lower than 1500.

Merger Effect on Reducing Competition

We shall also considered the effect of the merger, specifically whether competition will decrease after the merger, this indicates the possibility of forming monopoly. In this case, we foresee a risk of lowering the competition in the industry.

Disruptive Role of a Merging Party

Considering the power of each company individually, non of them can play the role of maverick. But due to interaction and synergy, the merger can completely change the situation, making Hasbro the maverick. Disney could argue that there would be a monopoly in the manufacturing of movies related toys, protecting itself from a toy manufacturing powerhouse in the industry. Hence, we do see a risk that related companies or studios like Disney could block the merger.

Biography for Professor Greene

- Visiting scholar at Harvard Law School and was previously a visiting scholar at U.C. Berkeley's School of Law and School of Engineering
- Executive committee member, as Chair Elect, of the American Association of Law School's Antitrust and Trade Regulation Section, and as a contributing editor to the Antitrust Law Journal's editorial board.

APPENDIX 22: INTELLECTUAL PROPERTIES

IPs	Expiration Period
Marvel	2020
Star Wars	2020
Frozen	The new license issued in 2016
Trolls	The new license issued in 2016
Disney Princess	The new license issued in 2016
Beyblade Burst	re-launch in 2016
Sesame street	2021
Yo-Kai Watch	Launch in 2016
Descendants	Launch in 2014/2015
Jurassic Park	Lost in 2017

Hasbro’s current contract with Marvel and Star Wars will end in 2020. Hasbro also secured new licenses issued in 2016 for three brands, Frozen, Disney Princess and Trolls, and relaunched Beyblade Burst in the same year. Its license of Sesame Street won’t expire until 2021. Hasbro launched Yo-Kai Watch in 2016 and Descendants in 2014/2015. In 2017, Hasbro lost Jurassic Park IP to its competitor Mattel. Hasbro needs to renegotiate with these IPs in the future, which may increase royalties due to increasing competition.

APPENDIX 23: INSIDER HOLDINGS



Other than the new insider shareholders who get shares because of acquisitions, management of Hasbro have been selling their holdings over past year. The insider holdings decreased from 9% in May 2017 to 7.69% in December 2017. Alan G. Hassenfeld, the former chairman and CEO of Hasbro, and the 3rd biggest shareholder has been gradually selling shares under his name. Most insiders’ shares sold were from him in 2017, in which he sold more than one million shares in February, and almost another one million shares latter in July and August. Considering he is not on the management team, Hassenfeld’s insider selling is not a concern. He might sell for his own personal purposes such as benefits for trustee of his family trust or used for Hassenfeld Foundation. It is also worth mentioning that Goldener D. Brian, the CEO of Hasbro, increased his holding by more than 300,000 shares by the end of 2017, which accounts for 0.25% of total shares outstanding of Hasbro. Insiders still hold 7.69% of total shares outstanding, which is a good sign in a large company like Hasbro. In contrast, Mattel’s insiders only hold 0.35% of the total share outstanding.

APPENDIX 24: MOVIE IMPACT

In 2007, Hasbro released the first Transformers movie series, which brought significant impact to Hasbro Transformers products sales. Revenue of the Boy’s sector increased over 60% (from \$575,841 to \$1,235,462) from 2006 to 2007, and Transformers products accounted for 12.6% of the consolidated net revenue in 2007.

In 2009, Hasbro released Transformers: Revenge of the Fallen, and its partner, Marvel, released X-Men Origins: Wolverine. Revenue of the Boy’s sector increased over 9%, and Transformers products accounted for 14.5% of the consolidated net revenue in 2009.

In 2010, Hasbro’s partner, Marvel, released Iron Man 2, however, no individual Marvel products accounted more than 10% of the consolidated net revenue in 2010. Revenue of the Boy’s sector decreased 7%.

In 2011, Hasbro released Transformers: Dark of the Moon, and Hasbro’s partner, Marvel, released, Thor, X-Men: First Class, and Captain America: The First Avenger. Revenue of the Boy’s sector increased over 33% in 2011. Beyblade premiered on Cartoon Network in June 2010, which also helped increase of the sales of Beyblade products. Transformers and Beyblade products accounted for 11.3% and 11.1% of consolidated net revenues respectively.

In 2012, Hasbro’s partner, Marvel, released The Avengers and The Amazing Spider-Man, but no individual Marvel products accounted for over 10% of the consolidated net revenue in 2012. Revenue of the Boy’s sector decreased over 13%.

In 2013, Hasbro’s partner, Marvel, released Iron Man 3, The Wolverine, and Thor: The Dark World. No individual Marvel product accounted for more than 10% of consolidated net revenues, and revenue of the boy’s sector decreased over 21% while revenue of the Girl’s sector increased over 26% due primarily to higher net revenues from My Little Pony, Furby (Hasbro released updated Furby with LCD eyes and a mobile app for the holiday season in 2012) and Nerf Rebelle products.

In 2014 Hasbro released Transformers: Age of Extinction and My Little Pony: Equestria Girls - Rainbow Rocks , and Hasbro’s partner, Marvel, released Captain America: The Winter Soldier, The Amazing Spider-Man 2, X-Men: Days of Future Past, and Guardians of the Galaxy. Revenue of the Boy’s sector increased over 19% in 2014. Transformers, Nerf and Marvel products were the major contributors to the increase in revenue.

In 2015, Hasbro’s partner, Marvel, released Avengers: Age of Ultron and Ant-Man, and Universal Studios released Jurassic World. Nerf and Hasbro’s partner Jurassic World, Marvel and Star Wars contributed to higher net revenue, while Transformers contributed less.

In 2016, Hasbro’s partners Lucas and Marvel released Rogue One: A Star Wars Story, Captain America: Civil War, X-Men: Apocalypse, and Doctor Strange. Revenue of the Boy’s sector increased 4% in 2016. Nerf and Yo-Kai Watch contributed to higher net revenue. Revenue of the Girl’s sector increased 50% in 2016 with higher net revenue from Hasbro’s line of Disney Princesses and Disney Frozen.

In 2017 Hasbro released Transformers: The Last Knight, and My Little Pony: The Movie. Hasbro’s partners, Marvel and Lucas released Logan, Guardians of the Galaxy Vol. 2, Spider-Man: Homecoming, Thor: Ragnarok, and Star Wars: The Last Jedi. We project revenue of the boy’s sector will increase around 9%.

In 2018, Hasbro’s partner, Marvel, is scheduled to release Avengers: Infinity War.

In 2019 Hasbro is scheduled to release Transformers, and Hasbro’s partners, Marvel and Disney, is scheduled to release Captain America, Avengers 4, Frozen 2.

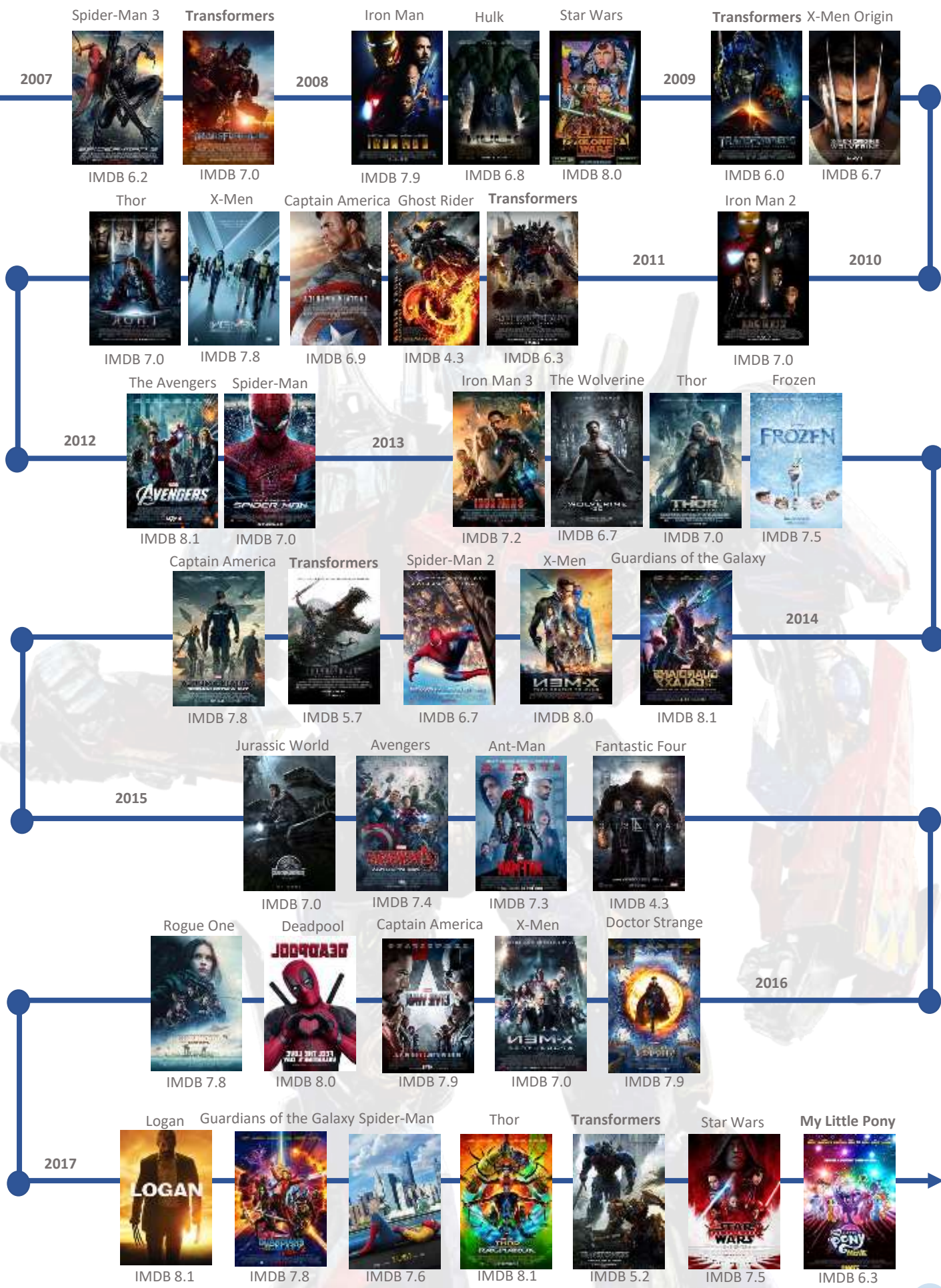
In 2020, Hasbro’s partner, Marvel, is scheduled to release Untitled Marvel Movie.

In 2021, Hasbro is scheduled to release Transformers.

In 2023, Hasbro is scheduled to release Transformers.

Transformers Movies Release Year	2007	2009	2011	2014	2017
Boy's Sector Revenue Growth	64%	9.39%	33.17%	19.90%	9.00%
Transformers Products Account for The Net Revenue	12.60%	14.50%	11.30%	N/A	N/A

APPENDIX 25: HASBRO RELATED MOVIES TIMELINE



APPENDIX 26: HASBRO VALUATION IF MERGES WITH MATTEL

WACC	6.70%														
Long-term FCF growth	2.63%														
Year		FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
FCF		464.92	367.57	479.91	429.03	534.05	743.73	530.15	783.43	814.22	981.63	971.05	1,130.15	1,174.52	1,287.73
Terminal Value															32,488
Total		464.92	367.57	479.91	429.03	534.05	743.73	530.15	783.43	814.22	981.63	971.05	1,130.15	1,174.52	33,776
Enterprise Value	26,071														
Add Back Initial Cash	1,913														
Asset value	27,985														
Subtract Initial Debt	11,545														
Imputed Equity Value	16,439														
Divide by # Shares Outstanding	125														
Share value	131.51														
Current market value per share	92.45														

ASSUMPTIONS

- Due to Hasbro’s advantage in storytelling strategies, the synergies created with the merger will increase Mattel’s revenue by 5% each year for the next 8 years.
- Mattel expenses will decrease 5% each year for the next 8 years after M&A goes through, due to Hasbro’s better management skills and synergy in supply chain management.
- WACC will decrease from 7.44% to 6.7% due to Hasbro’s issuance of debt to pay Mattel; increasing debt will decrease WACC.
- Hasbro will pay Mattel 30% premium of its market capitalization to acquire the company, which is around \$6.8B.
- In order to acquire Mattel, Hasbro will issue new debt of \$6.8B.
- FCF from Hasbro will stay the same before the M&A.
- M&A will happen in 2018.

RESULT

From the result, we expect that if this M&A goes through, Hasbro will have fair value of \$131.51, the best case in our valuation.

APPENDIX 27: HISTORIAL STOCK PERFORMANCE & DRIVERS

STOCK PRICE DRIVEN BY EARNING REPORTS



	Date	Revenue	Gap from Revenue Expectation	EPS	Gap from EPS Expectation
1	2/9/2015	\$1.3B (+1.6%)	\$30M	1.22	0.01
2	4/20/2015	\$713.5M(+5%)	\$53.23M	0.21	0.13
3	2/8/2016	\$1.47B(+13.1%)	\$100M	1.39	0.09
4	4/18/2016	\$831.2M(+16.5%)	\$54.09M	0.38	0.14
5	10/17/2016	\$1.68B(+14%)	\$110M	2.03	0.29
6	2/6/2017	\$1.63B(+10.9%)	\$130M	1.64	0.37
7	4/24/2017	\$849.7M(+2.2%)	\$27.65M	0.43	0.05
8	7/24/2017	\$972.51(+10.6)	973	0.53	0.07
9	10/23/2017	\$1.79B(+6.5%)	\$10M	2.05	0.11
1	11/11/2017	Hasbro Approaches Mattel for Toy Mega Merger			

Beat consensus estimation from analysts
 Miss consensus estimation from analysts

STOCK PRICE vs. FANDAMENTAL

Company Name	Hasbro								Mattel
Years	2012	2013	2014	2015	2016	2017	2018 EST	2017/09/30 TTM	2017/09/30 TTM
Stock Price	35.4	54.2	55.1	67.6	78.2	90.9	107.0	97.6	
MVE (\$M)	4552.9	7129.4	6916.2	8438.7	9754.8	11324.9	-	12165.3	5700.8
TEV (\$M)	5324.0	7889.0	7878.1	9213.8	10216.2	11962.4	-	12802.8	8388.5
Sales (\$M)	4089.0	4082.2	4277.2	4447.5	5019.8	5371.2	5681.8	5243.6	5105.5
EBITDA (\$M)	551.8	467.1	635.4	691.9	788.0	802.5	819.9	1051.9	484.7
NI (\$M)	336.0	286.2	415.9	451.8	551.4	572.0	619.9	607.0	-580.4
Total Assets (\$M)	4325.4	4402.3	4532.1	4720.7	5091.4	5709.1	5936.6	5544.6	6199.7
BVE (\$M)	1507.4	1727.8	1508.4	1704.1	1885.4	2123.2	2226.8	1956.3	1439.7
TEV/Sales	1.3	1.9	1.8	2.1	2.0	2.2	-	2.4	1.6
TEV/EBITDA	9.6	16.9	12.4	13.3	13.0	14.9	-	12.2	17.3
MVE/NI	13.6	24.9	16.6	18.7	17.7	19.8	-	20.0	-9.8
TEV/Total Assets	1.2	1.8	1.7	2.0	2.0	2.1	-	2.3	1.4
MVE/BVE	3.0	4.1	4.6	5.0	5.2	5.3	-	6.2	4.0

APPENDIX 28: MANAGEMENT TEAM INFORMATION

Brian D. Goldner	
Chairman/CEO, Hasbro Inc	2/2017-PRESENT
Chairman/President/CEO, Hasbro Inc	5/2015-2/2017
President/CEO, Hasbro Inc,	5/2008-5/2015
Chief Operating Officer, Hasbro Inc	1/2006-5/2008
President: US Toys Segment, Hasbro Inc	2003-1/2006
President: US Toys, Hasbro Inc	2001-2003
Senior VP & Gen Mgr: US Toys, Hasbro Inc	8/2000-2001
Senior Exec VP/COO, Tiger Electronic Inc (became part of Hasbro in 1998)	3/2000-8/2000
Mr. Goldner served as executive producer and played vital role in the success of 2007 Transformer film, which ushered Hasbro to character-based multimedia company. He served as board member of Hasbro from 2008 and became Chairman in 2015. He also served Gap Inc as board member in Compensation and Development, and Molson Coors Brewing Co as borard member in Compensation and Human Resources.	
John A. Frascotti	
President, Hasbro Inc	2/2017-PRESENT
President: Hasbro Brands, Hasbro Inc	10/2014-2/2017
Exec VP/Chief Marketing Ofcr, Hasbro Inc	3/2013-10/2014
Senior VP/Chief Marketing Ofcr, Hasbro Inc	1/2008-3/2013
With his vast experiences serving different companies such as Reebok and Corus Entertainment, Mr. Frascotti elevated Hasbro's world-class portfolio of brand. He became board member of Corus Entertainment Inc from 1/2016 to present.	
Deborah M. Thomas	
Exec VP/CFO, Hasbro Inc	3/2013-PRESENT
Senior VP/CFO, Hasbro Inc	5/2009-3/2013
Senior VP/Head: Corp Finance, Hasbro Inc	2008-5/2009
Senior VP/Controller, Hasbro Inc	2003-2008
VP/Assistant Controller, Hasbro Inc	1998-2003
Before joining Hasbro, Deborah worked at KPMG Peat Marwick, LLP. With the CPA title and her nearly 20 years serving at Hasbro, she is the savvy of financial status of Hasbro. She also served Rhode Island Airport Corp as board member, and Seaworld Entertainment Inc as board member since 11/2013.	
Wiebe Tinga	
Exec VP/Chief Commercial Ofcr, Hasbro Inc	2/2013-PRESENT
President:North America, Hasbro Inc	1/2012-2/2013
President:Latin America, Hasbro Inc	1/2007-12/2011
Marketing Depts in Netherlands, Hasbro Inc	1987-UNKNOWN
Being a 31-year veteran at Hasbro, Wiebe served different roles in a variaty of toy industry associations and non-profit organizations globally. Based on his cross countries experience, he also serves as Advisory Board Member of Northeastern University's Center for Emerging Markets.	
Rudolph Johnson	
Exec VP/Chief Human Resources Officer	3/2017-PRESENT
Human Resources	1997-PRESENT
Frito-Lay Co, FORMER	
Ecolab Inc, FORMER	
Rudolph is another senior veteran serving Hasbro 21 years, during which he held responsibility in global human resource management, organizational and leadership development, and performance management, etc. He also served as Chairperson of the Hasbro Children's Hospital Gala Committee from 2010 to 2014. He became the borad memeber of. United Way of Rhode Island, Inc. from 10/2014.	
Barbara Finigan	
Exec VP/Chief Legal Ofcr/Secy, Hasbro Inc	2014-PRESENT
Senior VP/Chief Legal Ofcr/Secy, Hasbro Inc	12/2010-2014
VP: Litigation & Employment, Hasbro Inc	2006-12/2010
Managing Attorney	1995-2003
Senior Attorney	1993-1995
Attorney	1991-1993
As a 19-year veteran of Hasbro, Ms. Barbara helped establish Hasbro's employment, product safety and compliance practices, and exerted her professionalism helping Hasbro operates smoothly in global legal environment. She has been a Director of Toy Industry Association, Inc. since May 2016.	
Duncan J. Billing	
Exec VP/Chief Strategy Officer, Hasbro Inc	2/2017-PRESENT
Exec VP/Chief Global Ops & Bus Dev Ofcr, Hasbro Inc	2014-2/2017
Exec VP:Global Ops & Bus Dev, Hasbro Inc	10/2014-UNKNOWN
Exec VP/Chief Dev Ofcr, Hasbro Inc	3/2013-10/2014
Senior VP/Chief Dev Ofcr, Hasbro Inc	8/2008-3/2013
Chief Mktg Ofcr:US TOY Group, Hasbro Inc	2004-2008
Gen Mgr:BIG Kids, Hasbro Inc	2002-2004
Mr. Duncan has been leading the product development worldwide and execute the IP strategy, aiming to develop an innovative and integrated IP and product development strategy. He played a vital role in managing successful brands such as Star Wars, Trivial Pursuit and Ghostbusters. He also served as a board member of Dle, Inc. from 8/2006.	
Tom Courtney	
Exec VP/Chief Global Ops, Hasbro Inc	2/2017-PRESENT
Assistant Controller - Games Hasbro Inc	1992 - UNKNOWN
During his 25-year service at Hasbro, Mr. Thomas, he is responsible for vendor relationships, product outsourcing, product safty and quality, supply chain management, etc. He led the successful turn around and the sale of Hasbro's games manufacturing operations in Massachusetts and Ireland.	
Stephen Davis	
Exec VP/Chief Content Officer	3/2017-PRESENT
President, Hasbro Studios, TV development and production division of Hasbro Inc	9/2009-3/2017
In his role, Mr. Davis is in charge of the lifeline of Hasbro, stroytelling of famous brands including G.I. Joe, Transformers, Romper Room, Trivial Pursuit, Scrabble, My Little Pony and Tonka. Also, he has been working on developing the new kid-friendly content for potential new product. He served as Co-Chairman at National Association of Television Program Executives.	

APPENDIX 29: REFERENCE

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