Colloquy: Entertainment Finance

MPAMB-GE.2401

Fall 2013

"Investing in the Entertainment Industry-

Corporate Governance Analysis and Financial Risk Assessment

of Five Global Entertainment Companies"

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Introduction:

For my Master's Colloquy, I have chosen to write on Investing in the Media & Entertainment Industry, incorporating an analysis of corporate governance and financial risk assessment of companies with large as well as small capitalization.

In order to provide a sound understanding of business practices in the entertainment space, this paper dwells into a qualitative as well as quantitative study of the financial aspects of 5 multi-national entertainment companies. In my attempt to cover the entertainment industry in as much entirety as possible, the companies' chosen have ventures in areas like live concerts, film & television production, content distribution, theme parks, new media technology etc. The companies selected for this study are as follows:

	INVESTING IN THE ENTERTAINMENT INDUSTRY				
#	Name of the Company	Sector			
1	The Walt Disney Company	Films + Parks & Resorts + Consumer Products + Media Networks			
2	2 Madison Square Garden Company Live Entertainment + Media Networks				
3	3 Live Nation Entertainment Live Entertainment + Ticketing + Merchandising				
4	Netflix Inc.	On-demand Internet Media Streaming			
5	Pandora Media Inc.	Internet Radio and Music Recommendation Service			

Source: Company Website - About Us / Overview Section

This paper is written with an approach towards analyzing an entertainment company's strategic position relative to its peers and assesses its viability going forward. It involves a sanity check of the company's financial statements, based on which a precise assessment of risk is derived upon. Moving forward sometimes companies shall be referred to by its respective stock ticker symbols i.e.

#	# Name of the Company	
1	The Walt Disney Company	DIS
2	Madison Square Garden Company	MSG
3	3 Live Nation Entertainment	
4	Netflix Inc.	NFLX
5	Pandora Media Inc.	Р

Source: NYSE and Nasdaq

A) Corporate Governance-

1) Executive Management:

"Take away my people, but leave my factories, and soon grass will grow on the factory floors. Take away my factories, but leave my people, and soon we will have a new and better factory." ~ Andrew Carnegie

To come up with an effective investment thesis, it is important to know about the people managing a company and its governance rationale. Let us start with an analysis of Corporate Governance for each of the 5 companies. The table below on the next page gives a snapshot of the executives of each company. The Walt Disney Company, Madison Square Garden Company and Live Nation

Entertainment have 5-6 executives listed, while as we move towards the tech companies the number of executives running the company increases to 12 for Netflix and 9 for Pandora. The average compensation for executives is highest for DIS at \$19.5 million, which does not seem unusual as it is the company with the highest market capitalization of \$122.6 billion amongst the chosen set of 5 companies. However, the second highest average reported compensation for executives is for Live Nation at \$16.70 million apart from the fact that its market capitalization is a mere \$3.82 billion. This gives us a sense of a highly disproportionate executive compensation structure compared to the market value of equity and shows one of the reasons for a high dependence on long-term debts in Live Nation Entertainment. The least executive compensation is for Pandora Media at \$0.80 million. This may be due to a high employee turnover rate of executives at the company amidst the several turbulent stages that it has been during recent times. The average age of the executives is between early 50s to early 60s for companies having a legacy of several decades i.e. DIS and MSG, while the average age of executives drop to mid 40s for rest of the recently founded and new media technology companies. Average tenure of executives at each company helps us gage the employee turnover rate for executives, which seems to be very high for Pandora Media and Madison Square Garden Company

with the executive team changing ever 3+ years. The maximum tenure for executives is at Disney at 9.2 years followed by 8.2 years for Netflix.

It is important to establish- how independent is the relation between ownership of the company vs. management of the company. This can be gaged by analyzing the number of executives present on the board of directors of a company. As one may notice in the table below for all of the companies except Pandora, only one executive is present on the board, which suggests there is a fairly high amount of independence between ownership and management.

A high independence is a sign of generally leading to fewer conflicts of interests amongst decision makers in a company. In a case where there is independence between the two, it is important for the management to be suitably responsive to the stakeholders of the firm. For a detailed look and specific identification of executives for each company please refer to the APPENDIX C - Exhibit of Executives / Board of Directors / Committees on page 59.

	Executive Analysis				
	The Walt Disney Company	Madison Square Garden Company	Live Nation Entertainment	Netflix Inc.	Pandora Media Inc.
# of Executives	6.00	6.00	5.00	12.00	9.00
Avg. Reported Compensation (MM)	19.50	4.10	16.70	7.60	0.80
Avg. Age	61.30	53.00	47.50	45.00	46.14
Avg. Tenure	9.20	3.60	5.80	8.20	3.90
Executives on Board	1.00	1.00	1.00	1.00	2.00

Source: Definitive Proxy Statement. SCHEDULE 14A

2) Chief Executive Officer – A Background Check:

An important step in corporate governance analysis is identifying and analyzing information about the current CEO of the company. This section shall shed light on insights such as, the tenure of current CEO of each company along with an analysis of his/her career progression in becoming the CEO. It will establish whether he/she has risen through the corporate ladder within a company or has taken the position from outside the company. Also, if a business family runs the company, does the CEO come from within the family?

Amongst the 5 chosen publicly listed companies only Madison Square Garden Company can be considered as a Family business, owned and operated by the famous Charles F. Dolan & Family. It is key to note that the CEO of MSG- Mr. Hank Ratner is not a member of the Dolan Family. It is not uncommon to see large family owned businesses to have a CEO outside from the family, as it enables efficient and unbiased decision-making, establishing a strong faith amongst investors of the company towards management of the company.

Referring to the table below Mr. Reed Hastings, the CEO of Netflix has been at the position for the maximum tenure, since 1997. He is also the co-founder of Netflix. The most recent CEO appointment amongst chosen companies has been of Mr. Brian McAndrews as the CEO of Pandora Media. But as this appointment has been fairly recent (11th September, 2013) and due to the lack of data available

of him we shall be considering the Ex-CEO of Pandora Media since 2004, Mr.

Joseph Kennedy in our analysis.

Amongst the 5 CEO's 3 have studied in one of the top ranking universities in the

United States and are with a Master's degree and beyond.

	CEO - Background Check						
#	Company	Name of CEO	CEO Since	Family Run Company	CEO Part of Family	Alma mater	Degree/Major
1	The Walt Disney Company	Robert A. Iger	2000	No	N/A	Ithaca College	BSc. In TV & Radio
2	Madison Square Garden Company	Hank Ratner	2009	Yes	No	Emory University	Doctorate of Law
3	Live Nation Entertainment	Michael Rapino	2005	No	N/A	Lakehead University	Business
4	Netflix Inc.	Reed Hastings	1997	No	N/A	Bowdoin College / Stanford University	BS. Mathematics / MS. Computer Science
5	Pandora Media Inc.	Joseph Kennedy	2004	No	N/A	Princeton University / Harvard University	BS. In Electrical Engineering & Computer Science / MBA

Source: Executive Profile & Biography - Businessweek

Further, let us have a look on the compensation structure of each CEO. The below table on the next page identifies the most recent reported compensation along with portraying the composition of remuneration, dissecting in the form of Cash Salary vs. Annual Cash Bonus vs. Equity Stock Options etc.

The highest earning CEO is Mr. Robert Iger of Disney with a massive total compensation of \$40,227,848, while the lowest compensation is for Mr. Reed

Hastings of Netflix at \$5,544,441. It is interesting to notice patterns with respect to the compensation structure amongst new media technology companies vs. non-tech companies. 'Stock Options' cover approx. 90.79% and 92.77% of the total compensation for CEO's of Netflix and Pandora as compared to 23.70%, 35.52% and 66.70% of the total compensation for CEO's of DIS, MSG and LYV respectively. On the other hand, 'Bonus / Non-Equity Incentive Plan / All Other Compensation' covers 70%, 48% & 26% for DIS, MSG and LYV compared to 0.02% and 2.67% for Netflix and Pandora respectively, of the Total Compensation. Cash Salary is highest for the CEO of MSG at 16.41% of the total compensation while the lowest is for the CEO of Pandora at 4.57%.

	CEO - Compensation Analysis (U.S. \$)							
#	Company	CEO	Total Compensation	Salary	Stock Options	Bonus / Non- Equity Incentive Plan / All Other Compensation		
1	The Walt Disney Company	Robert A. Iger	40,227,848	2,500,000	9,532,500	28,195,348		
2	Madison Square Garden Company	Hank Ratner	7,611,713	1,248,923	2,703,487	3,659,303		
3	Live Nation Entertainment	Michael Rapino	28,479,535	2,200,000	18,994,846	7,284,689		
4	Netflix Inc.	Reed Hastings	5,544,441	509,615	5,033,860	966		
5	Pandora Media Inc.	Joseph Kennedy	8,758,643	400,000	8,125,218	233,425		

Source: Definitive Proxy Statement. SCHEDULE 14A and Bloomberg Terminal - Corporate Governance

3) Board of Directors:

The next step is to identify and analyze the Board of Directors of each company. Points touched in this section are; the number of members in the board of directors of a company and for how many years have they been as board members.

Referring to the table on page after the next, Madison Square Garden Company has the biggest board with 12 members while Netflix and Pandora both have a board consisting of 8 members. The turnover rate for board members is very low for Netflix and Disney at 9.30 and 9.80 years respectively while the highest turnover rate is for MSG with members changing after tenure of just above 3 years. One may notice a direct correlation between the number of members in a board and average tenure of board.

It is also important to know the composition of the board with respect to how many insiders i.e. either managers or employees of the respective company are in the board vs. outsiders. Amongst the chosen companies approx. 90% of the directors in their respective boards are non-employee directors but most of them do hold the company stock while serving on the position as a board member.

The highest % number of shares held by the members of the board is by the technology companies- Pandora at 2.80% followed by Netflix at 1.90%; while for the non-tech companies there is an inverse correlation between their market capitalization and the % number of shares held by the members of the board. For

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instance the market capitalization for LYV, MSG, DIS is \$3.82 billion, \$4.43 billion and 122.60 billion respectively and the % number of shares held by the members of the board are 0.90 %, 0.50 % and 0.10 % respectively. As one can see from the below table, voting control % of the board members are relatively in proportion to the number of shares held by the members of the board.

The average meeting attendance by board members for each of the companies is consistent at 75%. This percentage is in accordance with the regulatory requirements of the attendance policy set by the SEC for publicly listed companies.

It is also key to check of any connections an outsider board member may have with the company with respect to a relationship such as a vendor/client/customer etc. An interesting point to touch on is- how many executives in the board are chief executive officers of other companies and also of any large stockholdings held by any respective board members or any form of representation by them of someone holding a large amount of stock in the company. For a comprehensive look into the management's stock holdings in different companies refer to APPENDIX B - Exhibit of Management's Holdings on page 56.

Madison Square Garden Company has 7 out of 12 board members present on the board of its peer companies, which I consider a significantly high number. Being a family-run business it is an evident characteristic to maintain a close control over the peer companies associated with the parent company. This strategy may also be the reason of MSG to have such a big board of 12 members.

One may further notice that almost all board members of a particular company are on the board of some other company. This has become a ubiquitous phenomenon with respect to boards of companies and it is interesting to see how effectively the elitist class has maintained a relationship system, favoring executives of the upper echelons. For a detailed look and specific identification of Board Members and Committees for each company please refer to the APPENDIX C - Exhibit of Executives / Board of Directors / Committees on page 59.

		Board Member Analysis			
	The Walt Disney Company	Madison Square Garden Company	Live Nation Entertainment	Netflix Inc.	Pandora Media Inc.
# of Board Members	10.00	12.00	11.00	8.00	8.00
Non-Employee Directors	9.00	11.00	10.00	7.00	6.00
Members Owning Shares	10.00	8.00	11.00	6.00	6.00
Shares Held %	0.10	0.50	0.90	1.90	2.80
Voting Control %	0.10	0.61	1.00	2.05	3.25
Avg. Meeting Attendance %	75.00	75.00	75.00	75.00	75.00
On Boards of Peers	0.00	7.00	1.00	2.00	0.00
On Boards of Other Companies	10.00	10.00	9.00	8.00	7.00
Average Age	60.30	50.50	47.00	51.00	57.40
Average Tenure (Years)	9.80	3.10	4.90	9.30	4.50

Source: Definitive Proxy Statement. SCHEDULE 14A and Bloomberg Terminal - Corporate Governance

4) Structure of Voting Rights:

In the corporate world, it is not uncommon to see differences in voting rights offered by shares owned by the executives in a board. This is done by creation of Voting and Non-Voting Classes of shares by corporations for assisting in better management control. For instance, a company might create Class A Shares which has voting rights set as 1 Share : 1 Vote and Class B Shares which consists of voting rights as 1 Share : 10 Votes. The table below helps us in identifying whether present executives and directors own a disparate amount of shares, which offer disproportionate voting rights in favor of them.

Combined Voting Power of all Executives & Directors as a group based on Class B Shares held			
The Walt Disney Company	< 1.0 %		
Madison Square Garden Company	86.15%		
Live Nation Entertainment (Liberty Media Corporation - 26.75%, Shapiro Capital Management - 8.45%)	3.60%		
Netflix Inc.	9.72%		
Pandora Media Inc.	31.64%		

Source: Definitive Proxy Statement. SCHEDULE 14A and Bloomberg Terminal - Corporate Governance

The executives and directors of Madison Square Garden Company have an enormous voting power 86.15%, again indicating a strategy to maintain significant control over the company by and within the Dolan family. While quite the opposite, The Walt Disney Company's executives and directors have a voting

power of less than 1%. This is because Disney has been in the entertainment business for decades and is at the mature stage. Numerous institutional investors from all over the globe have been marginal investors during Disney's several cycles of growth. Live Nation Entertainment's Form DEF 14 – Proxy Statement indicates that executives and directors have a voting power of only 3.60%. But one may not ignore that two peer companies which stand out with the voting powers in LYV are Liberty Media Corporation with 26.75% of voting rights and Shapiro Capital Management with 8.45% of voting rights. Thus, the two mentioned companies and executive group combined hold 38.8% of voting rights.

5) Firm vs. Financial Indices:

In order to determine the degree of an investment, it is important to understand the interaction between a company and the different financial indices it trades in. In this section I have derived insights by looking into the number of Wall Street analysts following each company. Also, as heavily traded shares are an indicator of true value reflected by market prices as compared to lightly traded shares, a look at the trading volumes of each respective stock gives us a not so imprecise idea of the valuation sentiment with respect to each company amongst traders on Wall Street. It also helps gage the volatility of a company stock. Also, the ease of

availability of a company's financial information in the markets is a key indicator

of the financial health of a company.

	Indices		
	NYSE	Nasdaq	S&P 500
The Walt Disney Company	Х		Х
Madison Square Garden Company		X	
Live Nation Entertainment	Х		
Netflix Inc.		X	
Pandora Media Inc.	Х		

Source: NYSE, Nasdaq and Standar & Poor's Indices

As the above table shows Disney, Live Nation and Pandora are listed on New York Stock Exchange, while Madison Square Garden Company and Netflix are listed on Nasdaq. Only Walt Disney Company is a part of the Standard and Poor's 500 index. With respect to the latest Fortune 500 / 1000 list- Disney is ranked at #66, Live Nation Entertainment is ranked at #439 and Netflix is ranked at #629.

		Company Stock Summary			
	57wk Range				Earnings per Share (EPS)
The Walt Disney Company	122.60	46.53 - 69.87	7937790.00	20.78	3.30
Madison Square Garden Company	4.43	41.50 - 63.44	389031.00	30.87	1.88
Live Nation Entertainment	3.82	8.39 - 19.79	1185680.00	22.98	-0.56
Netflix Inc.	19.74	74.50 - 389.16	3629590.00	278.72	1.20
Pandora Media Inc.	4.55	7.08 - 28.26	11151100.00	-113.00	-0.28

Source: Yahoo Finance and Bloomberg Terminal > Stock Summary

Expanding on the stock summaries from the previous chart one may notice that the % change between 52-week low price vs. 52-week high price of the companies is the highest for Netflix with 422.36% followed by Pandora with 299.15% and LYV, MSG and DIS at 135.88%, 52.87% and 50.16% respectively. It is interesting to note that the average 3-month trading volume is highest for Pandora which is also the only company having a negative Price to Earning Ratio at -113. Generally a high price to earning ratio would be considered as an indication that the investors are expecting a high growth in earnings of the company in near future. Thus, there seems to be a high possibility that the high 3-month volume of Pandora Media stock is due to a lot of sell-side activity. Vice-versa, Netflix has the highest price to earning ratio of 278.72 amongst the chosen companies.

		Equity Research Analyst Stats				
	The Walt Disney Company	Madison Square Garden Company	Live Nation Entertainment	Netflix Inc.	Pandora Media Inc.	
# of Analysts	26.00	7.00	6.00	26.00	18.00	
Avg. Rating	4.04	4.01	4.08	3.89	3.89	
Minimum Analyst Return						
%	-44.41	6.00	-6.23	-72.98	-44.41	
Maximum Analyst Return						
%	55.44	55.44	40.89	86.25	59.70	
Median Analyst Return %	25.82	33.68	30.74	27.64	32.25	
Median Benchmark %	27.65	25.84	28.33	26.68	29.24	
Buy Recommendation %	56.00	56.00	55.00	52.00	52.00	
Hold Recommendation %	40.00	39.00	44.00	40.00	41.00	
Sell Recommendation %	4.00	5.00	1.00	8.00	7.00	

Source: Bloomberg Terminal > Equity > Analyst Recommendations

Generally, companies that have a large number of analysts being followed tend to be increasingly meticulous and transparent about their transactions with the markets as compared to otherwise. From the data above we see that Netflix and Disney are the companies which maximum number of analysts (26) follow. Interestingly one may see a pattern that the only two live concert entertainment companies - MSG & LYV, amongst the chosen ones are followed by the least number of analysts -7 and 6 respectively. The average rating given by all analysts following their respective companies range from 3.89 to 4.08. If the chosen 5 companies were considered as sample for the industry, one may consider this as the range of stock rating for the entertainment industry as a whole. Once again with respect to the minimum analyst return percentages as suggested by the analysts MSG and LYV are at 6% and -6.23% respectively, which is the lowest minimum return i.e. downside for a stock as compared to the new media companies- Netflix and Pandora at -72.98% and -44.91%. Disney even though is not a technology company shows a significant minimum downside of -44.41%. The maximum analyst return % as per the analysts is for Netflix at 86.25% followed by its tech peer Pandora Media at 59.70%. Currently, as per the analyst numbers Madison Square Garden Company seems to be the best investment considering the maximum upside (55.44%) to minimum downside (6%) returns. With respect to recommendations 52% - 56% of analysts recommend to buy stock of the chosen entertainment companies, while 40% - 44% of the analysts recommend holding the stock. These recommendations itself shows the tremendous upside potential of stocks of the entertainment industry as a whole. The highest selling recommendations amongst our chosen companies are for the tech companies with 7% - 8% of analysts suggesting to take a sell position for Pandora and Netflix respectively.

6) Corporate Social Responsibility (CSR):

During recent times Corporate Social Responsibility for each company has become increasingly important with respect to keeping social costs in check. One may not ignore CSR as a factor to look into while considering socially responsible long-term investments in a company. In this section, I shall gage the social standing of each company on a global scale. This will help assess whether the company holds a good/bad reputation as a corporate citizen and the reasons behind it. In order to analyze CSR standings for our firms, the benchmark/metric provided by Bloomberg Inc. is used. Bloomberg releases a company-wise proprietary metric on a yearly basis called as "Environmental, Social & Governance Score", commonly known as the ESG Score, which is considered as one of the most robust measures for CSR amongst corporations. The score fluctuates according to disclosure made by the respective individual companies. The scores are ranging from 0.1 for companies with minimum amount of ESG disclosure to 100 for companies with disclosure on every single ESG parameter as specified. Every data metric is weighted according to its importance in the overall score. For example, Greenhouse Gas Emissions hold a greater weight than other disclosures in the Environmental Metrics, while Board of Directors data carry more weight compared to other disclosures under Governance Metrics and Workforce data carries more importance compared to others in the Social Metrics. Also, to maintain absolute relevance, calculation of all metrics and scores are tailored to the different industry sectors under which the respective company falls in.

Some of the parameters considered while calculating Environmental Disclosure Score's are - Greenhouse Gas Emissions, Waste Produced etc. while the Social Disclosure Score includes – Total Number of Employees, % of Women in Workforce, % of Women in Management, % of Minorities in Workforce, % of Minorities in Management and Community Spending etc. For the Governance Disclosure Score, Bloomberg takes into consideration – Size of the Board, Number of Independent Directors, Board Duration, Number of Board Meetings, % of Board Meeting Attendance and Political Donations etc.

Metrics for all of the above mentioned parameters are then weighted and consolidated to come up with a single ESG Score. In the chart below, our 5 chosen companies have been ranked according to this ESG Disclosure Score.

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	Corporate Social Responsibility - Rankings					
Rank	Company	ESG Disclosure Score				
1	The Walt Disney Company	37.60				
2	Netflix Inc.	14.05				
3	Madison Square Garden Company	13.22				
4	Pandora Media Inc.	11.16				
5	Live Nation Entertainment	9.92				

Source: Bloomberg Terminal > Sustainability Index > ESG Disclosure Scores

For investors considering a socially responsible investment, The Walt Disney Company ranks first with the highest ESG disclosure score of 37.60, followed by Netflix Inc. at 14.05, followed by Madison Square Garden Company at 13.22, while the 4th and 5th ranks are Pandora at 11.16 and Live Nation Entertainment at a score of 9.92. It is interesting to notice that there is no single pattern evident with respect to the Corporate Social Responsibility Analysis, which is unlike rest of the other parameters analyzed above. This shows that the social responsibility decisions are utterly firm specific and subjective for each company.

For an itemized look at the ESG Disclosure metrics for The Walt Disney Company, please refer to APPENDIX D - Example of Walt Disney Company's Environmental, Social & Governance Disclosure Score on page 67.

B) Stockholder Analysis:

After understanding the relationship dynamics of the chosen firms with society and markets, let us move to the next step and drill down on the stakeholders of the firm. It is key to know the number of investors holding outstanding shares of a company and what percentage of them are individual vs. institutional investors.

The three tables below will help us in conducting an Institutional / Insider / Individual-holding analysis. Insider Investors are essentially any entity apart from directors/managers of the company holding more than 5% equity of the company.

It is important to analyze from the perspective of identifying Marginal Stakeholders for each of the respective companies, as this lays the foundation for analyzing risk of each of these firms. A marginal investor is the investor who trades heavily on margin and plays a prominent role in setting the price of stocks in the market. Two conditions need to be satisfied for an investor to be considered as a marginal investor:

- 1) The investor needs to be having a large holding.
- 2) The investor needs to be conducting trading actively.

An investor can be holding a large percentage of stocks but will not be considered a marginal investor if he is dormant with respect to trading equities held. E.g. As of Oct 3, 2013, Mr. Larry Ellison - CEO of Oracle Corporation holds 1,110,434,580 shares worth \$36,933,054,130 making him the single largest investor in the company (and the third richest man in the world) but he is not considered as a marginal investor as there has rarely been any selling activity from his stake making it a highly illiquid holding.

My reason to emphasize on identifying the Marginal Investors is because the fundamental assumption with respect to return and risk models is that a marginal investor is absolutely well diversified and thus the only risk which matters is the non-diversifiable risk. Now, this assumption will likely to be held true and correct if an institutional investor is a marginal investor. Vice versa, if an insider individual investor is the marginal investor, the above-mentioned assumption can be precarious, as a majority of the insider individual investors are not suitably diversified enough.

As we see from the three charts on next page, it is clearly evident that the marginal investors are institutional investors for all our chosen companies. Thus, the marginal investors for all firms are to be considered as well diversified for our further study of assessing various risk parameters.

The two technology firms Netflix and Pandora along with Madison Square Garden Company have an institutional ownership of more than 90%, While The Walt Disney Company and Live Nation Entertainment have an institutional ownership of \sim 70 to 75%. The total number of active investors i.e number of buyers + holders + sellers are the highest for Disney at 3474 institutions followed by Netflix at 989 institutions. Interestingly the lowest numbers of institutions investing are for Pandora at 433 institutions but Pandora Media has the highest percentage of institutional ownership at 98.49%. For a comprehensive look at the top 20 investors for each of the chosen companies please refer to the APPENDIX A -Exhibit of Current Holdings on page 53.

The reason for the highest number of active investors for Disney and Netflix can be attributed to the number of selloffs, which are also highest for Disney and Netflix at 121 and 70. Further, the volatile nature of Technology firms can be identified through the percentage change in institutional holdings for Netflix at +8.59% and Pandora Inc. for -7.98% as compared to the 0.33%-0.37% range for Disney and MSG.

	Institutional Ownership Summary				
	The Walt Disney Company	Madison Square Garden Company	Live Nation Entertainment	Netflix Inc.	Pandora Media Inc.
% of Shares Held	70.24	97.53	75.52	96.85	98.49
% of Float Held	77.64	99.57	105.98	99.14	103.35
# of Holders	2000.00	301.00	292.00	604.00	269.00
# of Buyers	626.00	102.00	96.00	198.00	85.00
# of Sellers	848.00	103.00	81.00	187.00	79.00
# of New Buyers	152.00	43.00	61.00	114.00	87.00
# of Selloffs	121.00	33.00	47.00	70.00	52.00
% change in Institutional Holdings	0.33	0.37	-1.20	8.59	-7.98

Source: Bloomberg Terminal > U.S. Equity > Corporate Governance > Ownership Summary and Yahoo Finance

Referring to the insider ownership summary from the table below on next page, Live Nation has the highest number of insider owners – 24, while the lowest numbers of insider owners are for Madison Square Garden at 13 insiders. The highest percentage of shares held by insiders is for Pandora Media with 15 insiders holding 4.22% equity of the company compared to Netflix and Live Nation at 2.23% and 2.44%, followed by Madison Square Garden at 1.91%, while the lowest percentage of insider holding is also for the company with the highest market capitalization i.e. Disney at 0.13%.

Family control is increasingly evident for Madison Square Garden Company as it has a mere one insider seller of stock with the number of shares sold at a minimal -1000 shares, which corresponds to a percentage of change in holdings close to 0%. The highest number of sellers is for Netflix Inc. with 11 sellers selling off 350+ thousand shares. Live Nation Entertainment has the second to last highest number of sellers with 5 insider sellers but has the highest number of shares sold i.e. 815,182 shares. One noticeable fact is that for all of the firms the number of buyers and shares bought amongst insider owners is nil. This shows the effect of stringent insider trading rules and regulations implemented by the Securities and Exchange Commission, which have become increasingly important after the financial crisis of 2008 and the occupy wall street movement.

	Insider Ownership Summary				
	The Walt Disney Company	Madison Square Garden Company	Live Nation Entertainment	Netflix Inc.	Pandora Media Inc.
% of Shares Held	0.13	1.91	2.44	2.23	4.22
% change in Holdings	-3.92	0.00	-13.16	-3.28	-3.67
# of Insiders	18.00	13.00	24.00	19.00	15.00
# of Buyers	0.00	0.00	0.00	0.00	0.00
# of Sellers	6.00	1.00	5.00	11.00	7.00
# of Shares Bought	0.00	0.00	0.00	0.00	0.00
# of Shares Sold	154694.00	1000.00	815182.00	353378.00	194574.00
Avg. Open Mkt. Buy					
Price	0.00	0.00	0.00	0.00	0.00
Avg. Open Mkt. Sell					
Price	66.94	59.65	18.14	234.85	18.87

Source: Bloomberg Terminal > U.S. Equity > Corporate Governance > Ownership Summary and Yahoo Finance

The below table gives a snapshot of the percentage of shares held by Individual Investors in a company. All of the companies except for Pandora Media Inc. have individual investors in the range of 2.05% to 2.76%. Pandora has the highest percentage of individual investors at 4.17%, a characteristic that is often evident amongst new media technology firms.

	% of Shares held by Individual Investors
The Walt Disney Company	2.76
Madison Square Garden Company	2.05
Live Nation Entertainment	2.41
Netflix Inc.	2.36
Pandora Media Inc.	4.17

Source: Definitive Proxy Statement. SCHEDULE 14A Proxy Statement Pursuant to Section 14(a) of the Securities

Exchange Act of 1934

Now, in order to get a better sense of the Institutional Holding and Insider Holding numbers mentioned above, let us compare it to the Industry specific benchmarks. Value Line, the NYC based, financial research and investment publishing firm maintains a database of 6177 companies across various industries for Insider / Institutional Holding. As stated in the below table, from the master database, I have extracted data only for the industry verticals closely related to entertainment industry. Data for a total of 415 firms across Advertising, Cable TV, Entertainment, Internet, Technology and Recreation etc. suggest that the Insider Holdings are at an average of 17.27% compared to 2.19% for our chosen firms, while Institutional Holdings are at an average of 49.12% compared to 87.77% for our chosen firms. This shows that the marginal investors for all our chosen firms are not only extremely well diversified but also significantly more diversified than the entertainment industry at a whole.

Value	Value Line - Insider / Institutional Holding Industry Benchmarks				
Industry Name	Number of Firms	Insider Holdings	Institutional Holdings		
Advertisement	32	12.81%	54.78%		
Cable TV	20	22.13%	51.22%		
Entertainment	76	31.07%	45.26%		
Entertainment Tech	42	10.99%	42.40%		
Internet	194	12.82%	39.48%		
Recreation	51	13.80%	61.59%		
Sum / Average for %	415	17.27%	49.12%		

Source: Value Line database of 6177 firms and Useful Data Sets - NYU Stern School of Business

C) Risk Assessment and Return Analysis:

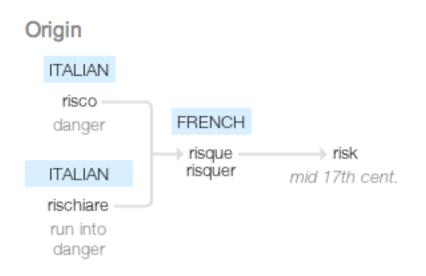
Now that we have a decent insight into Corporate Governance as well as the Stockholders of our chosen companies, let us take a step further and dwell into assessing the quantitative risk metrics for each of the companies.

Fore mostly, let us try to find out - What is Risk?

Most of the English dictionaries define risk as a negative term and explain it from a viewpoint of averseness. For example: Some versions of Merriam-Webster Dictionary define risk as "the possibility of something bad or unpleasant (such as an injury or a loss) will happen". While, another version defines risk as "exposure to danger or hazard". I personally find the Chinese way of defining risk rather interesting as it gives an additional perspective and widens the scope of the word. The Chinese symbol for risk is as follows: 危機

The first character denotes "Danger" while the second is the character that symbolizes "Opportunity". The combined word denotes a blend of danger and opportunity and thus one may not have one without the other. This notion is the basis for the fundamental phenomenon in world of finance that a high risk shall render a high return and vice versa.

The below diagram by Google Books Ngram Viewer gives a brief idea of the origin and progression of the word 'Risk':



Also, the high importance of the term 'Risk/risk' in recent times can be seen through the below graph by Google Books Ngram Viewer. From 1800 to 2008, the red line denotes the use of the word 'risk', while green line is for the word 'Risk' in books and other publications.



Risk with respect decision-making is highly subjective amongst human beings. An individual's personality, surroundings, circumstances and situations etc. determine

the amount of risk he is willing to take. With respect to financial risk generally the trends denote that individuals who have less disposable income are inclined to be more averse to risk. On the other hand, people with high disposable income such as day traders and hedge fund managers are kind of risk lovers. Let us briefly have a look at the two fundamental types of risks in our financial system.

Systematic Risk and Unsystematic Risk:

Systematic risk involves the risk associated with respect to macro-economic conditions. National / International level changes effect companies, organizations, institutional as well as individual investors. Theoretically and virtually it is impossible to protect oneself from Systematic Risk. The statistical term for Systematic Risk is R^2 (R Squared), which we shall refer to a number of times in the risk analysis for our chosen 5 companies.

Unsystematic risk is quite on the opposite level and is the risk which effects individual firms or a small number of assets. It is also know as "Specific Risk". A statistically proven method to reduce or eliminate unsystematic risk is the phenomenon called diversification.

Apart from the two mentioned types of risks some examples of more specific types of risks to be stated are: 'Credit Risk / Default Risk', 'Country Risk',

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'Foreign-Currency Risk', 'Prime Rate Risk', 'Political Instability Risk', 'Index Volatility Risk' etc.

WACC – Weighted Average Cost of Capital:

I have conducted the Risk Assessment and Return Analysis with an objective to determine a precise weighted average cost of capital, commonly known as WACC for each of our chosen entertainment firms. The WACC, also known as 'the hurdle rate' colloquially, is expressed as the minimum percentage return, which a company must achieve in order for any project or investment to be determined financially viable. For any given project or investment the hurdle rate is directly proportional to the risk associated with it. i.e. the higher the risk, the higher would be the hurdle rate.

From a corporate finance and company management perspective, a WACC can be regarded, as the rate of return that a company should pay to its capital contributors and security holders who finance its operations. Some examples of various sources via which companies' raise capital to fund its projects are – Common / Preferred stock equity, Short / Long-term debts, convertible debts, pension liabilities, warrants/options and subsidies from government etc. Most of these sources can be classified into two main categories of source of capital – Debt and Equity. The

concept, which identifies these sources of capital and their respective proportion for each company, is commonly known as the 'Capital Structure'.

The return generated on various securities from their respective category of debt or equity in the capital structure is varied and not the same. The Weighted Average Cost of Capital is computed taking into consideration corresponding weights for each of the different components of capital in the capital structure. Mathematical formula for WACC can be seen as follows:

WACC =
$$\frac{D}{D+E}K_d + \frac{E}{D+E}K_e$$

Where:

D = "Total Debt in Capital Structure"

E = "Total Equity in Capital Structure"

$$K_d =$$
 "Cost of Debt"

$$K_e =$$
 "Cost of Equity"

Essentially, the weighted average cost of capital is the % of debt in the capital structure times the cost of debt plus the % of equity in the capital structure times the cost of equity. The conclusion of this thesis shall constitute a WACC for each of the 5 chosen entertainment companies.

Let us have a look at the Capital Structure and the proportion of debt and equity of our chosen companies as of the most recent quarter, in the below table:

	Capital Structure Analysis		
	% of Debt	% of Equity	Total %
The Walt Disney Company	10.90%	89.10%	100.00%
Madison Square Garden Company	0.00%	100.00%	100.00%
Live Nation Entertainment	32.80%	67.20%	100.00%
Netflix Inc.	2.70%	97.30%	100.00%
Pandora Media Inc.	0.30%	99.70%	100.00%

Source: FORM 10-K. ANNUAL REPORT

Also, the below charts give us a segregated representation of the Debts in terms of Short Term Debt and Long Term Debt as well as Equity proportions in terms of Common Stock and Preferred Stock in percentages.

The Walt Disney Company:

Capital Structu	re (Millions of USD)		
	Market Cap	117,342.0	89.1%
	ST Debt	1,512.0	1.1%
	LT Debt	12,776.0	9.7%
	Pref. Eqty	0.0	0.0%
	Total	131,630.0	100.0%

Source: Bloomberg Terminal > Capital Structure > WACC

Madison Square Garden Company:

Capital Struct	ure (Millions of USD)	···· 2*	
	Market Cap	4,463.3	100.0%
	ST Debt	0.0	0.0%
	LT Debt		0.0%
	Pref. Eqty	0.0	0.0%
	Total	4,463.3	100.0%

Source: Bloomberg Terminal > Capital Structure > WACC

Live Nation Entertainment:



Source: Bloomberg Terminal > Capital Structure > WACC

Netflix Inc.:

Capital Structu	re (Millions of USD)		
	Market Cap	18,323.1	97.3%
	ST Debt	0.0	0.0%
1	LT Debt	500.0	2.7%
	Pref. Eqty	0.0	0.0%
	Total	18,823.1	100.0%

Source: Bloomberg Terminal > Capital Structure > WACC

Pandora Media Inc.:



Source: Bloomberg Terminal > Capital Structure > WACC

As we can observe from the above table, Live Nation Entertainment is highly levered and has the highest percentage of debt at \sim 33% followed by the Walt Disney Company at \sim 11%. Netflix has a small percentage of debt at 2.7% while

Pandora Media and Madison Square Garden have minimal debt close to nil %. Further on, we will use these percentages of Debt as well as Equity to calculate the 'Weighted Average Cost of Capital' for each company.

Now that we have the weights of each source of capital in the capital structure for each firm, the next step is to calculate the cost of raising capital from these sources i.e. Cost of Equity and Cost of Debt for each firm.

CAPM – "Capital Asset Pricing Model":

Across Wall Street and on the whole - financial industry worldwide, "Capital Asset Pricing Model (CAPM)" is used to calculate the cost of equity for a company. Building on the pioneering works of Prof. Harry Markowitz who is considered as the father of diversification and modern portfolio theory, Prof. Jack Treynor, Prof. William Sharpe and Prof. Merton Miller introduced the Capital Asset Pricing Model, which led them to jointly receive Noble Prize in the field of Economics in 1990. The following is the formula for CAPM that we will use to calculate the cost of equity for our chosen companies:

$$E(R_i) = R_f + \beta_i (E(R_m) - R_f)$$

Where:

E(R_i) = Expected Return on Invested Equity (essentially, K_e for calculating WACC)

 $R_f =$ Risk Free Rate

 β_{I} = Beta of the Investment (a measure of risk of the security)

 $E(R_m) =$ Expected return from the market

 $(R_m - R_f) =$ Equity Risk Premium

Let us have a look into each of these components of the equation in brief.

Risk Free Rate:

Theoretically, Risk free rate is a rate of return on a security investment with nil financial risk. It can also be interpreted as the % return interest expected by any investor from an investment which is completely risk free over a specific period. From the CAPM perspective the risk free rate can be determined as a compensatory return to be furnished to an investor whose investment holds a portfolio comprising of all the equity stocks in an economy. In other words the risk free rate is the recompense for Systematic Risk, which as we discussed earlier, cannot be eliminated via diversification of any portfolio. Thus, essentially the risk free percentage return can be obtained by any investor with virtually zero risk. This further implies that any additional risk over and above the risk free rate taken by an investor needs to be recompensed by a higher interest rate return compared to the risk free rate. In practice the only securities on whom the possibility of defaults are minimal, thus making the default risk next to zero are Government

Bonds. Thus the risk free rate that we shall take into account for our calculations is the 10 year Zero Coupon Bond Rate of United States: Department of Treasury, which one may find by visiting at <u>www.treasury.gov</u>

Following is the U.S Government - 10 Year Zero Coupon Bond Rate as of 13th Nov, 2013.

Risk Free Rate	2.715%
Source: www.treesury.gov	

Source: www.treasury.gov

The risk free rate used for all my further calculations will be 2.715%.

Equity Risk Premium (ERP):

The last part of CAPM equation, denoted as $(E(R_m) - R_f)$ is basically the expected return on market minus the risk free rate, technically know as: Equity Risk Premium. In corporate finance the equity risk premium for a company is essentially the expected return on the company's equity stock minus the risk free rate. Thus an ERP can be referred to as the percentage return that the company stock's expected rate of return exceeds the risk free rate of interest. The expected rate of return for our company stocks as of 13th Nov. 2013 have been derived from the current level of stock prices combined with yield from dividend and any capital gains to come up with a basic Internal Rate of Return (IRR) on these stocks. The below table gives us the derived Equity Risk Premiums for our chosen firms:

	Equity Risk Premium
The Walt Disney Company	7.793%
Madison Square Garden Company	4.413%
Live Nation Entertainment	8.451%
Netflix Inc.	9.937%
Pandora Media Inc.	9.046%

Source: Bloomberg Terminal > Risk and Return > Equity Risk Premium

It is key to note that except for technology firms i.e. Netflix and Pandora, Equity Risk Premiums are directly proportional to the amount a company is leveraged. For example, as seen previously Madison Square Garden Company with zero Debt in its capital structure makes it a less risky investment and thus the equity risk premium for MSG is the lowest at 4.413%. On the other hand, Live Nation Entertainment has the highest percentage of debt at ~33% making it a riskier investment and correspondingly thus offers a high equity risk premium at 8.451%.

Quantitative Risk Assessment through Regression Beta:

The most widely used metric for gaging risk of an investment portfolio or a particular stock is 'Beta'. From one perspective, a beta of a stock can be considered as a measure of financial elasticity. It also gives a precise idea of a stock's volatility and liquidity in a market index. Stocks that have a high beta are usually more volatile and riskier, thus providing potential higher returns while

stocks having low beta are positioned with less risk and volatility and provide a lower return.

Mechanically and statistically speaking a Beta for a stock is calculated by conducting a linear regression of the returns of a particular stock over a particular time period against the returns of the market/index it is trading in over the same amount of time period. The slope co-efficient of the regression is the estimated beta for the stock and the alpha of stock is determined by the y-intercept.

The table below helps us understand, what exactly does a particular value of beta conveys about the behavior of a stock price. For example, if the beta of a stock is 1.3, mathematically speaking, the volatility of that stock is 30% greater than the volatility of the index it trades in.

Measure of Beta	What does it mean?
β < 0	Movement of stock price is inversely correlated with movement of the respective index it trades in
β = 0	Movement of stock price is not correlated with movement of the respective index it trades in
0 < β < 1	Movement of stock price is directly correlated with movement of the respective index it trades in, but is less than the movement of index
β = 1	Movement of stock price is directly correlated with movement of the respective index it trades in and is about in the same proportion as the movement of index
β > 1	Movement of stock price is directly correlated with movement of the respective index it trades in, but is more than the movement of index

Source: Damodaran, Aswath. Corporate Finance: Theory and Practice. New York: Wiley, 2001. Print.

The beta described above is also known as the Raw Beta or Regression Beta or Top Down Beta. In order to derive the Top Down Regression Beta for our 5 chosen firms, I have regressed the stock returns for each company against the return of the market corresponding to the index they are trading in. The time period for returns and duration selected in conducting the regression was weekly returns of each stock for duration of 5 years starting from 11/08/2008 to 11/08/2013. Here are the results of the regression conducted via a Bloomberg Terminal:

	Risk Analysis - Regression Stats								
	The Walt Disney Company	Madison Square Garden Company	Live Nation Entertainment	Netflix Inc.	Pandora Media Inc.				
Raw Beta	1.164	0.442	1.304	1.622	1.431				
Adjusted Beta	1.109	0.628	1.203	1.414	1.288				
Intercept Alpha	0.233%	0.650%	0.273%	1.323%	0.502%				
R ² - Risk Attributed to Market Factors	53.40%	7.20%	26.20%	7.00%	9.40%				
(1 - R ²) Firm Specific Risk	46.60%	92.80%	73.80%	93.00%	90.60%				
Risk Free Rate	2.715%	2.715%	2.715%	2.715%	2.715%				
Jensen's Alpha	0.678%	-0.865%	1.098%	3.012%	1.672%				

Source: Bloomberg Terminal > Risk and Return > Beta

For a more detailed look into the regression metrics of each firm along with a scatter plot, please refer to APPENDIX E – Beta Regression Statistics on page 68. The results show that technology firms amongst our sample have a high beta with Netflix having a Beta of 1.622 followed by Pandora Media at 1.431. For the rest of the companies, there is once again a direct correlation seen with the amount of

debt a firm has in its capital structure and its beta. Madison Square Garden, which has a nil debt, also has the lowest beta at 0.442, while the highly levered company Live Nation Entertainment has a high beta of 1.304. Disney has a raw beta of 1.164.

Adjusted Beta:

The Adjusted Beta is just a proprietary method Bloomberg uses to move the raw beta towards one. To simply put Bloomberg uses the following mathematical formula to derive Adjusted Beta.

Adjusted Beta = 2/3 (Raw Beta) + 1/3 (1)

For Example, Disney's Raw Beta is 1.164,

Thus, Disney's Adjusted Beta = 2/3(1.164) + 1/3(1) = 1.109

R-Squared (**R**²):

R-Squared is a robust measure of the systematic risk associated with a company. R-Squared in a regression denotes the percentage of risk a company carries attributed to the index/market factors. In the results, Walt Disney Company has the highest R-Squared percentage at 53.40% followed by Live Nation Entertainment at 26.20%. The rest of the companies are in the range of 7.20% to 9.40%.

(1 – R²) Firm Specific Risk:

Quite the opposite $(1 - R^2)$ denotes the risk attributed specifically to the individual firm. The regression results show that Madison Square Garden and Netflix have a very high firm specific risk. One may not be surprised that of the two, the former is a family run company while the later is a new media technology firm, both characteristics contributing to a high $(1 - R^2)$. The lowest firm specific risk is for Disney, company with the highest market capitalization in our sample.

Jensen's Alpha:

Jensen's Alpha, named after Michael Jensen is one of my favorite parameters to judge the risk and return of a stock. On a lighter note, if one were to visit a bar on or nearby Wall Street, he may not be surprised to hear stock traders / hedge fund managers bragging more about the alpha they generated on their portfolio than talking about the percentage return on investment. Jensen's Alpha is a risk adjusted performance measure of a stock. It basically denotes the abnormal/unusual return on a stock that is over and above the expected return on the stock as predicted by the CAPM. The formula for Jensen's Alpha is as follows:

$$\alpha_J = R_i - [R_f + \beta_{iM} \cdot (R_M - R_f)]$$

Where:

- R_i = Expected Return on Invested Equity
- $R_f =$ Risk Free Rate
- $\beta_{\rm I}$ = Beta of the Investment
- $R_m =$ Expected return from the market
- $(R_m R_f) =$ Equity Risk Premium

The Regression Statistics table above shows the highest Jensen's Alpha for Netflix Inc. at a massive 3.012%, followed by Live Nation at 1.098% and Pandora Media Inc. at 1.672%. The Walt Disney Company has a low Jensen's Alpha at 0.682%, while the lowest and the only negative alpha amongst our sample is for Madison Square Garden Company at a -0.865%.

Bottom Up Beta:

In order to calculate an accurate cost of equity for each chosen entertainment firm, I have taken further steps to clean up the above calculated Raw Beta / Top Down Beta. As a raw beta is derived from a regression against the market return only, it may have more influence of irrelevant market factors, which make the data a bit noisy. As some of our chosen firms are conglomerates and are involved in multiple businesses in multiple industries a more precise risk estimate would be the Bottom Up Beta. Bottom-Up Beta's are a more robust measure of the risk as they take into consideration the current mix of businesses the firm is involved in as well as the current mix of its capital structure i.e. the debt to equity ratio.

The following steps need to be undertaken in order to calculate a Bottom-Up Beta:

- Identify and breakdown the industry segments the company is conducting businesses in.
- 2) Evaluate the unlevered beta for a firm to be in each of the particular identified businesses by referring to the database of Unlevered Beta's for 6177 firms maintained by Value Line, the independent investment research and financial publishing firm.
- Assign weights to each business that a firm operates in, based on the percentage of revenue earned from it of the total revenue.
- Multiply the unlevered betas identified for each business to the weight assigned to that business.
- Modify the unlevered beta with the company's current debt to equity ratio by applying the following formula:

Levered Beta = Unlevered beta $\{1 + [(1 - \tan rate) (Debt/Equity)]\}$

After thoroughly conducting the above-mentioned steps, we are able to derive a Bottom-Up Levered Beta, the most precise measure of financial risk for each of our entertainment firms. The results are as follows:

			The Walt D	isney Compai	ny			
Segments	Revenue %	Segment Unlevered Beta	Unlevered Beta adjusted for Weights	Bottom-Up Unlevered Beta	Effective Tax Rate	1 - Effective Tax Rate	Debt to Equity Ratio	Firm Specific Bottom-Up Levered Beta
Media Networks (Cable Networks + Broadcasting)	45.19%	0.92	0.41575					
Parks and Resorts (Domestic + International)	31.28%	1.21	0.37849	1.07967	31.02%	0.6898	0.32	1.32
Studio Entertainment	13.27%	1.24	0.16455					
Consumer Products	7.89%	1.23	0.09705					
Interactive Media	2.36%	1.01	0.02384					

Source: FORM 10-K. ANNUAL REPORT, Value Line database of 6177 firms and Own Calculations

	Madison Square Garden Company											
Segments	Revenue %	Segment Unlevered Beta	Unlevered Beta adjusted for Weights	Bottom-Up Unlevered Beta	Effective Tax Rate	1 - Effective Tax Rate	Debt to Equity Ratio	Firm Specific Bottom-Up Levered Beta				
Media	50.56%	0.92	0.46515									
Sports	35.09%	1.11	0.38950	1.08802	41.35%	0.5865	0.00	1.09				
Entertainment	18.82%	1.24	0.23337									

Source: FORM 10-K. ANNUAL REPORT, Value Line database of 6177 firms and Own Calculations

	Live Nation Entertainment											
Segments	% Beta		Unlevered Beta adjusted for Weights	Bottom-Up Unlevered Beta	Effective Tax Rate	1 - Effective Tax Rate	Debt to Equity Ratio	Firm Specific Bottom-Up Levered Beta				
Concerts	65.65%	1.24	0.81406									
Ticketing	23.31%	1.01	0.23543									
Artist Nation	6.78%	1.24	0.08407	1.17285	22.23%	0.7777	1.21	2.28				
Sponsorship	4.21%	0.92	0.03873									
Other	0.05%	1.11	0.00056									

Source: FORM 10-K. ANNUAL REPORT, Value Line database of 6177 firms and Own Calculations

	Netflix Inc.										
Segments	Revenue %	Segment Unlevered Beta	Unlevered Beta adjusted for Weights	Bottom-Up Unlevered Beta	Effective Tax Rate	1 - Effective Tax Rate	Debt to Equity Ratio	Firm Specific Bottom-Up Levered Beta			
Streaming (Domestic + International)	68.50%	1.15	0.78775	1.17835	35.81%	0.6419	0.42	1.09			
Domestic DVD	31.50%	1.24	0.39060								

Source: FORM 10-K. ANNUAL REPORT, Value Line database of 6177 firms and Own Calculations

	Pandora Media Inc.											
Segments	Revenue %	Segment Unlevered Beta	Unlevered Beta adjusted for Weights	Bottom-Up Unlevered Beta	Effective Tax Rate	1 - Effective Tax Rate	Debt to Equity Ratio	Firm Specific Bottom-Up Levered Beta				
Advertising	87.84%	1.25	1.09800									
Subscription Services	12.16%	1.15	0.13984	1.23784	0%	1.0000	0.11	1.37				

Source: FORM 10-K. ANNUAL REPORT, Value Line database of 6177 firms and Own Calculations

As we can see the highest Bottom-Up Levered Beta is for Live Nation Entertainment making it financially the riskiest company amongst our chosen 5 companies. The second highest Bottom-Up Levered Beta is for Netflix Inc. with a beta of 1.50. The lowest bottom up beta is for Madison Square Garden Company making it the least risky company compared to others. The Walt Disney Company and Pandora media have a Bottom-Up Beta of 1.32 and 1.37 respectively.

Cost of Equity:

Now, that we have all the components in place for calculating the cost of equity for each of our companies, I will use the CAPM, the formula of which is as mentioned before and below.

$$E(R_i) = R_f + \beta_i (E(R_m) - R_f)$$

After placing numbers in the formula we get the Cost of Equity. The results are in the below table:

	Risk Free Rate	Firm Specific Bottom-Up Levered Beta	Equity Risk Premium	Cost of Equity	
The Walt Disney Company	2.715%	1.32	7.793%	13.00%	
Madison Square Garden Company	2.715%	1.09	4.413%	7.53%	
Live Nation Entertainment	2.715%	2.28	8.451%	21.98%	
Netflix Inc.	2.715%	1.50	9.937%	17.62%	
Pandora Media Inc.	2.715%	1.37	9.046%	15.11%	

Source: www.treasury.gov and Own Calculations

The highest cost of equity is for Live Nation Entertainment at 21.98%, followed by Netflix at 17.62%. Both of these companies have high betas due to the massive proportion of debt and the volatile nature of technology business. Pandora's cost of equity is close to its technology peer in our sample at 15.11%, while Disney's Cost of Equity is at an exact 13.00%. The lowest cost of equity is for the family run Madison Square Garden Company at 7.53%. This may not be surprising as the cost of equity is the minimum return a company must deliver to its shareholders. Given that Madison Square Garden is a family run company, the interests of shareholders might be weighted differently compared to other corporations.

Cost of Debt:

After Cost of Equity the second last step is now to calculate the Cost of Debt for each of our chosen corporations. Within the Debt component of the capital structure, companies use various instruments to raise debt capital such as: Short Term Loans, Long Term Loans, various types of corporate bonds, certificates, commercial papers, negotiable CDs etc. The company then has to pay interest on the capital raised via the respective debt source and this interest is known as the cost of debt. On key thing to note is that as the expense of debt usually is a tax deductible expense, the more precise measure of the cost of debt is the after tax cost of debt. As the cost of equity is also an after tax cost, this helps make an apples-to-apples comparison making the cost of capital more consistent. I have used the following formula to calculate the After Tax Cost of Debt:

After-Tax Cost of Debt = Before Tax Cost of Debt \times (1 – Tax Rate)

	Cost of Debt Calculation							
	Effective Tax Rate	Debt Adjustment Factor	After-Tax Cost of Debt					
The Walt Disney Company	31.02%	68.98%	2.48%	1.29	2.21%			
Madison Square Garden Company	41.35%	58.65%	0.00%	1.38	0.00%			
Live Nation Entertainment	22.23%	77.77%	2.38%	1.62	3.00%			
Netflix Inc.	35.81%	64.19%	2.74%	1.62	2.85%			
Pandora Media Inc.	0.00%	100.00%	2.74%	1.38	3.78%			

Source: FORM 10-K. ANNUAL REPORT and Own Calculations

Integrating into WACC:

Now that we have calculated and laid out all pieces of the puzzle, let us further combine them to come up with a Weighted Average Cost of Capital for each firm. The formula used will be the same as mentioned previously, which is:

WACC =
$$\frac{D}{D+E}K_d + \frac{E}{D+E}K_e$$

Thus we now have the Weight of Debt for each company, Weight of Equity for each company, Cost of Debt for each company and the Cost of Equity for each Company. Putting these parameters, above into the formula we get the WACC for each company. The results are shown in the below table:

	WACC - Weighted Average Cost of Capital							
	Weight of Debt	Weight of Debt Cost of Debt Weight of Equity Cost of Equity WA						
The Walt Disney Company	10.90%	2.21%	89.10%	13.00%	11.83%			
Madison Square Garden Company	0.00%	0.00%	100.00%	7.53%	7.53%			
Live Nation Entertainment	32.80%	3.00%	67.20%	21.98%	15.76%			
Netflix Inc.	2.70%	2.85%	97.30%	17.62%	17.22%			
Pandora Media Inc.	0.30%	3.78%	99.70%	15.11%	15.07%			

Source: Own Calculations

Finally, as we see in the above table the overall WACC for each firm has been derived. Netflix Inc. has the highest WACC at 17.22% followed by Live Nation Entertainment at 15.76%. Pandora Media Inc. comes next with a WACC of 15.07%. The Walt Disney Company has a comparatively low WACC at 11.83% while the lowest WACC amongst our chosen firms is for Madison Square Garden Company at 7.53%.

This percentage number is one of the most important numbers used while conducting financial analysis for a corporation. Internal Finance Managers use the WACC to determine the minimum return a project/investment should generate in order to be considered financially viable, while outside investors use the WACC as the rate at which the forecasted future cash flows of a company is discounted at, in order to come up with a valuation for the company. For example, the corporate finance department of Live Nation Entertainment will take into account the calculated WACC and determine a project financially viable only if its percentage return is over and above the minimum acceptable hurdle rate i.e. its WACC of 15.76%. While, for an outside investor for conducting a valuation of Live Nation Entertainment, he shall forecast the future cash flows based on past and future projects implementing the Discounted Cash Flow (DCF) Model approach. The hurdle rate used in this DCF Model is the calculated WACC for the company i.e. the future cash flows shall be discounted back to present values using the rate 15.76%.

By calculating the Weighted Average Cost of Capital for each firm, I have set the foundation for conducting a project based and/or company-wide valuation. Also, if one may consider the 5 chosen companies as a sample decent enough a proxy for the entertainment industry as a whole, an arithmetic mean of the 5 Weighted Average Cost of Capital's can be considered as the Average WACC for investments in the Entertainment Industry. **The arithmetic mean of WACC's for our 5 chosen firms is 13.48%**.

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APPENDIX A - EXHIBIT OF CURRENT HOLDINGS

The Walt Disney Company:

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lt Disney Co/The					(CUSIP 254687
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Holder Name	Portfolio Name	Source	Opt	Amt Held	% Out	Latest Chg File D
		All Source			-1 000	tatest chg me b
1 LAURENE POWELL JOBS TRUST	n/a	PROXY		130,844,544	7.32	0 01/07
2 BLACKROCK	n/a	ULT-AGG		93,837,785	5.25	-494,298 10/17
1 VANGUARD GROUP INC	n/a	ULT-AGG		80,163,479	4.49	1,183,628 06/30
STATE STREET CORP	n/a	ULT-AGG		77.800.714	4.36	2.902.971 10/17
CAPITAL GROUP COMPANIES INC	n/a	ULT-AGG		65.698.115	3.68	25.607.999 09/30
6 D FMR LLC	n/a	ULT-AGG		59,453,225	3.33	-1,495,596 06/30
I. SUN LIFE FINANCIAL INC	n/a	ULT-AGG		55,699,112	3.12	-1,422,694 06/30
8 E STATE FARM MUTUAL AUTO INSURANCE	STATE FARM MUTUAL AUTOMOBILE INSURANCE	131		42,206,018	2.36	0 06/30
LUCAS JR GEORGE W	n/a	Co File		37,076,679	2.08	0 02/06
1 E BANK OF NEW YORK MELLON CORP	BANK OF NEW YORK MELLON CORP	136		30,293,150	1.70	-127,337 06/30
1 D NORTHERN TRUST CORPORATION	NORTHERN TRUST CORPORATION	136		28,465,082	1.59	224,418 06/30
E T ROWE PRICE ASSOCIATES	T ROWE PRICE ASSOCIATES INC	138		25,834,722	1.45	-3,332,832 06/30
1 S WELLINGTON MANAGEMENT CO LLP	WELLINGTON MANAGEMENT COMPANY LLP	13F		24,292,691	1.36	-4,191,722 06/30
1 DENNISON ASSOCIATES LLC	JENNISON ASSOCIATES LLC	136		16,644,863		2,408,938 06/30
1 D JPHORGAN CHASE & CD	n/a	ULT-AGG		15,072,832	0.84	1,502,662 06/30
16 E NORGES BANK	NORGES BANK	136		14,991,213	0.64	0 12/31
1. DAVIS SELECTED ADVISERS LP	DAVIS SELECTED ADVISERS LP	131		12,938,299	0.72	-2,546,616 06/30
B GEODE CAPITAL MANAGEMENT LLC	GEODE CAPITAL MANAGEMENT LLC	136		12,441,353	0.70	233,702 06/30
R 🖬 WELLS FARGO & COMPANY	n/a	ULT-AGG	Y	12,253,959	0.69	-536,689 06/30
TIAA CREF INVESTMENT MANAGEMENT	TIAA-CREF INVESTMENT MANAGEMENT LLC	138		12,072,943	0.68	-1,134,038 06/30
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Madison Square Garden Company:

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Holder Name	Portfolio Name	Source	Opt	Amt Held	% Out	Latest Chg	File
		All Source	AL				
1 T ROWE PRICE ASSOCIATES	T ROWE PRICE ASSOCIATES INC	13F		5,432,286	8.59	-278,100	06/3
LUXOR CAPITAL GROUP LP	LUXOR CAPITAL GROUP LP	13F		4,975,253	7.86	-905,737	06/3
1 E GANCO	n/a	ULT-AGG		4,502,179	7.12	-99,254	06/3
L S VANGUARD GROUP INC	n/a	ULT-AGG		3,343,030	5.28	160,908	06/3
S CLEARBRIDGE INVESTMENTS LLC	CLEARBRIDGE INVESTMENTS LLC	136		2,758,645	4.36	-9,600	06/3
6 BLACKROCK	n/a	ULT-AGG		2,495,529	3.94	144,899	06/3
LEGG MASON INC	Multiple Portfolios	MF-AGG		2,165,531	3.42	-4,100	06/3
8 E MORGAN STANLEY	n/a	ULT-AGG		1,804,888	2.85	30,893	06/3
9 JAT CAPITAL MANAGEMENT LP	JAT CAPITAL MANAGEMENT LP	131		1,759,661	2.78	902,977	06/3
1 SARIEL INVESTMENTS LLC	ARIEL INVESTMENTS LLC	13F		1,735,385	2.74	-412,090	06/3
1 DEUTSCHE BANK AG	n/a	ULT-AGG		1,543,590	2.44	-361,235	06/3
E BANCO INC	BAMCO INC	136		1,350,000	2.13	0	06/3
1 STATE STREET CORP	n/a	ULT-AGG		1,188,130	1.88	-83,712	06/3
I NEWBROOK CAPITAL ADVISORS LP	NEWBROOK CAPITAL ADVISORS	13F		1,171,249	1.85	566,261	06/3
E CRAMER ROSENTHAL MCGLYNN LLC	CRAMER ROSENTHAL MCGLYNN LLC	131		919,820	1.45	108,795	06/3
16 VALINOR MANAGEMENT LLC	VALINOR MANAGEMENT LLC	131		909,930	1.44	133,610	06/3
1. DIMENSIONAL FUND ADVISORS	n/a	ULT-AGG		891,777	1.41	-64,675	07/3
B D E SHAW & COMPANY INC	D E SHAW & CO	136		883,852	1.40	460,050	06/3
RATNER HANK J	n/a	Form 4		776,604	1.23	109,590	03/2
BURGUNDY ASSET MANAGEMENT	BURGUNDY ASSET MANAGEMENT	131		722,580		20,243	

		% Out 100.02	2	Zoom			85

Live Nation Entertainment:

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ve Nation Entertainment Inc		_		_ (USIP 538034
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Holder Name	Portfolio Name	Source Opt	Amt Held	* Out	latest Chg File (
		All Source 💌 Al 💌			
1 LIBERTY MEDIA CORP	n/a	Form 4	52,051,942	26.23	1,700,000 03/1
2 SHAPIRO CAPITAL MANAGEMENT LLC	SHAPIRO CAPITAL MANAGEMENT LLC	131	12,790,479	6.44	-2,599,215 06/3
1 ELACKROCK	n/a	ULT-AGG	11,845,314	5.97	216,369 06/3
t 📴 HARRIS ASSOCIATES LP	HARRIS ASSOC LP	136	10,812,822	5.45	-1,894,403 06/3
1 E DIMENSIONAL FUND ADVISORS	n/a	ULT-AGG	9,032,509	4.55	-13,476 07/3
6 E VANGUARD GROUP INC	National Action of the second se	ULT-AGG	8,385,433	4.23	103,875 06/3
I. FINE CAPITAL PARTNERS LP	FINE CAPITAL PARTNERS LP	131	6,909,284	3.48	-1,358,900 06/3
8 🖬 HORIZON KINETICS	n/a	ULT-AGG	6,103,073	3.06	720,176 06/3
9 E PRINCIPAL FINANCIAL GROUP INC	n/a	ULT-AGG	5,114,991	2.58	2,012,017 06/3
1 🖪 WEITZ WALLACE R & COMPANY	WALLACE R WEITZ & COMPANY	13F	3,633,500	1.83	-1,800,300 06/3
1 🔳 KALMAR INVESTMENTS INC	KALMAR INVESTMENTS INC	131	3,616,890	1.82	75,722 06/30
L 🖸 STATE STREET CORP	n/a	ULT-AGG	3,269,816	1.65	57,798 08/3
1 AKRE CAPITAL MANAGEMENT	AKRE CAPITAL MANAGEMENT	13F	3,250,000	1.64	3,250,000 06/3
1 DENNISON ASSOCIATES LLC	JENNISON ASSOCIATES LLC	13F	3,007,980	1.12	-263,131 06/3
L GANCO	n/a	ULT-AGG	2,867,661	1.44	-70,873 06/3
1 BANK OF NEW YORK MELLON CORP	BANK OF NEW YORK MELLON CORP	13F	2,239,993	1.13	271,714 06/3
1. E LODMIS SAYLES & COMPANY LP	LOOMIS SAVLES & CO LP	13F	2,228,155	1.12	-228,788 06/3
📱 🔲 PARADIGM CAPITAL MANAGEMENT	PARADIGM CAPITAL MANAGEMENT	131	2,159,579	1.09	-5,955 06/30
R NEW MOUNTAIN VANTAGE ADVISERS LL	NEW MOUNTAIN VANTAGE ADVISERS LLC	13F	2,139,443	1.06	-501,456 06/3
T ROWE PRICE ASSOCIATES	T ROWE PRICE ASSOCIATES INC	131	2,135,621	1.06	-211,720 06/3

Netflix Inc.:

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etflix Inc				(USIP 64110L
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1 T ROWE PRICE ASSOCIATES	T ROWE PRICE ASSOCIATES INC	13F	6,371,124	10.81	554,912 06/30
CAPITAL GROUP COMPANIES INC	n/a	ULT-AGG	5.941.439	10.05	-201.273 06/30
1 ICAHN ASSOCIATES CORP	ICAHN ASSOCIATES CORP	13F	5,541,066	9.40	0 06/3
C VANGUARD GROUP INC	n/a	ULT-AGG	3,460,815	5.87	118,116 06/3
i BLACKROCK	n/a	ULT-AGG	2.635.532	4.47	-152.305 10/1
6 STATE STREET CORP	n/a	ULT-AGG	2.235.354	3.79	-2,495 10/1
I. TECHNOLOGY CROSSOVER MGMT VII	n/a	Research	1.881.060	3.19	0 06/3
8 E FMR LLC	n/a	ULT-AGG	1.680.758	2.85	1.042.322 06/3
S DENNISON ASSOCIATES LLC	JENNISON ASSOCIATES LLC	131	1.110.281	1.88	952.206 06/3
L COATUE MANAGEMENT LLC	COATUE MANAGEMENT LLC	138	1.065.828	1.81	-285,625 06/3
1 HASTINGS REED	n/a	form 4	1.022.215	1.73	0 09/2
ARROWSTREET CAP LIMITED PARTNER	ARROWSTREET CAPITAL LIMITED PARTNERSHI	131	951,970	1.62	260,970 06/3
1 BANK OF NEW YORK MELLON CORP	BANK OF NEW YORK MELLON CORP	131	946,871	1.61	12,742 06/3
L GILDER GAGNON HOWE	GILDER GAGNON HOWE	13F	827,654	1.40	-2,051 06/3
L D INVESCO LTD	n/a	ULT-AGG	778,718	1.32	579,274 06/3
16 WELLINGTON MANAGEMENT CO LLP	WELLINGTON MANAGEMENT COMPANY LLP	131	773,052	1.31	277,462 06/3
1. LANSDOWNE PARTNERS LP	LANSDOWNE PARTNERS LIMITED PARTNERSHIP	138	744,842	1.26	744,842 06/30
18 D NORTHERN TRUST CORPORATION	NORTHERN TRUST CORPORATION	138	734,486	1.25	16,599 06/30
18 SLATE PATH CAPITAL LP	SLATE PATH CAPITAL LP	131	560,000	0.95	-145,000 06/3
a 🖸 DAVIS SELECTED ADVISERS LP	DAVIS SELECTED ADVISERS LP	131	515,876	0.88	-14,790 06/3
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Pandora Media Inc.:

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andora Media Inc					_ (USIP 698354
Current 2) Historical 3)	Matrix 4) Ownership 5)	Transacti	ions	6 Options		
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Holder Name	Portfolio Name	Source	Opt	Amt Held	* Out	latest Chg File D
		All Source	Al -			
1 E CROSSLINK CAPITAL INC	n/a	Form 4	و و و	23,773,418	12.37	-6,234,829 09/1
2 E WILLIAM BLAIR & COMPANY LLC	WILLIAM BLAIR & COMPANY LLC	136		12,745,964	6.63	1,876,171 06/3
1 LONE PINE CAPITAL LLC	n/a	13G		10,085,216	5.25	0 09/2
L 🔤 WELLINGTON MANAGEMENT OD LLP	n/a	13G		9,939,295	5.17	2,985,497 07/3
S ORBIS HOLDINGS LIMITED	ORBIS HOLDINGS LIMITED	136		9,675,398	5.04	4,507,594 06/30
6 🖪 VANGUARD GROUP INC	n/a There are a second	ULT-AGG		6,774,036	3.53	2,114,128 06/3
BROOKSIDE CAPITAL INVESTORS INC	BROOKSIDE CAPITAL MANAGEMENT LLC	131		5,664,214	2.95	2,955,628 06/3
8 🧧 GOLDMAN SACHS GROUP INC	n/a	ULT-AGG		5,268,761	2.74	2,634,152 06/3
🞗 🖪 KORNITZER CAPITAL MANAGEMENT INC	KORNITZER CAPITAL MANAGEMENT INC	138		5,144,727	2.68	-406,523 06/30
1 GREVLOCK XII GP LLC	n/a	Research		4,893,141	2.55	0 06/3
1 E ALLIANZ ASSET MANAGEMENT AG	n/a	ULT-AGG		4,560,120	2.37	4,034,615 07/3
EMINENCE CAPITAL LLC	EMINENCE CAPITAL LLC	136		4,408,416	2.29	4,408,416 06/3
1 E ALLIANCE BERNSTEIN	n/a	ULT-AGG		4,341,779	2.26	196,359 06/3
1 E LORD ABBETT & CO LLC	LORD ABBETT & CO LLC	136		4,158,645	2.16	1,852,474 06/3
DARUMA ASSET MANAGEMENT	DARUMA ASSET MANAGEMENT	136		3,654,731	1.90	-869,850 06/3
16 ELACKROCK	n/a	ULT-AGG		3,616,610	1.88	-11,344 06/3
1. JERICHO CAPITAL ASSET MANAGEMENT	JERICHO CAPITAL ASSET MANAGEMENT LP	138		3,547,427	1.85	166,427 06/3
B GRANAHAN INVESTMENT MANAGEMENT	GRANAHAN INVESTMENT MANAGEMENT INC	136		2,905,960	1.51	82,660 06/30
12 E T ROWE PRICE ASSOCIATES	T ROWE PRICE ASSOCIATES INC	131		2,834,501	1.48	-2,288,500 06/30
A FNR LLC	n/a	ULT-AGG		2,612,963	1.36	0 07/3

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APPENDIX B - EXHIBIT OF MANAGEMENT'S HOLDINGS

The Walt Disney Company:

IS US Equity Currence	cy <mark>USD 🔹</mark> 🛛 🛛 Wal	t Disne	y Co/The	M	anagement's	s Holdings
Security	GICS Industry	Exec	Board↓	Mkt Val	%Outstd	Shares
1) Walt Disney Co/The	Media	5	10	121.72MLN	0.103	1.83MLM
2) Facebook Inc	Software & Services		1	720.99MLN	0.567	13.81ML
3) Potbelly Corp	Consumer Services			7.64MLN	1.044	304,03
4) FedEx Corp	Transportation			6.26MLN	0.016	50,00
5) Visa Inc	Software & Services			2.67MLN	0.003	13,45
6) Apple Inc	Technology Hardware &			2.55MLN	0.001	5,05
7) Wells Fargo & Co	Banks			1.06MLN		24,89
8) Starbucks Corp	Consumer Services			775,933	0.001	9,85
9) NIKE Inc	Consumer Durables & Ap			402,516	0.001	5,40
10) Central European Media En	t Media			119,600	0.015	20,00
11) Clorox Co/The	Household & Personal P			112,871	0.001	1,32
12) Starwood Hotels & Resorts	Consumer Services			67,747	0.001	98
13) Bank of America Corp	Diversified Financials		1	43,980		3,00
14) Environmental Service Pro	f Commercial & Professio			80	0.003	10,00
15) Washington Mutual Inc					0.001	22,81
16) Wells Fargo Canada Corp						10,09
17) Euro Disney SCA	Consumer Services	1		1,605	0.001	25

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Madison Square Garden Company:

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MSG US Equity Currence	y USD 🔹 🛛 Madison 🛛	Square	Garden Co/	The M	anagement'	s Holdings
Security	GICS Industry	Exec	Board↓	Mkt Val	%Outstd	Shares
1) Madison Square Garden Co	Media	6	8	70.09MLN	1.915	1.21MLN
Cablevision Systems Corp	Media			48.52MLN	8.88	23.75MLN
3) AMC Networks Inc	Media			85.19MLN	1.981	1.2MLN
4) Cablevision Systems Corp-					13.031	12.44MLN
5) IntercontinentalExchange I	Diversified Financials			3.15MLN	0.022	15,994
6) Citigroup Inc	Diversified Financials			1.74MLN	0.001	34,102
7) Live Nation Entertainment I	Media			479,506	0.013	24,832
8) Retail Opportunity Investm	Real Estate			359,750	0.035	25,000
9) Mack-Cali Realty Corp	Real Estate			229,320	0.012	10,265
10) Estee Lauder Cos Inc/The	Household & Personal P					0
11) ABM Industries Inc	Commercial & Professio			232,700	0.015	8,502

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Live Nation Entertainment:

<pre>⟨Go> to view holdings // US Equity Currend</pre>		ion Ente	rtainment	Inc M	lanagement'	s Holdings
Security	GICS Industry	Exec	Board↓	Mkt Val	%Outstd	Shares
1) Live Nation Entertainment	Media	2	11	38.49MLN	1.004	1.99MLN
2) Barnes & Noble Inc	Retailing			699,193	0.085	51,036
3) Frontier Communications C	Telecommunication Ser			511,603	0.012	115,200
4) Liberty Interactive Corp	Retailing			100.46MLN	0.776	3.82MLN
5) Liberty Media Corp	Media			87.99MLN	0.513	567,764
6) Starz	Media			51.64MLN	1.607	1.72MLN
7) Zillow Inc	Software & Services			23.18MLN	0.893	287,059
8) Liberty Ventures	Retailing			20.47MLN	0.622	219,870
9) CC Media Holdings Inc	Media			3.49MLN	2.571	697,581
10) Expedia Inc	Retailing			2.41MLN	0.064	78,299
11) QUALCOMM Inc	Technology Hardware &			1.66MLN	0.001	24,129
12) Sirius XM Radio Inc	Media			1.07MLN	0.004	267,143
13) Leggett & Platt Inc	Consumer Durables & A			951,292	0.023	32,412
14) TiVo Inc	Software & Services			669,536	0.044	53,307
15) Windstream Holdings Inc	Telecommunication Ser			467,935	0.009	54,411
16) Air Methods Corp	Health Care Equipment			435,668	0.026	10,050
17) Electronic Arts Inc	Software & Services		1	397,312	0.005	16,197
18) TripAdvisor Inc	Retailing			386,613	0.004	5,315
19) Equity Residential	Real Estate			340,216	0.002	6,119
20) Papa John's International	Consumer Services			323,708	0.021	4,542
21) Directy	Media		1	222,144	0.001	3,560

Netflix Inc.:

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						s Holdings
Security	GICS Industry	Exec	Board↓	Mkt Val	%Outstd	Shares
1) Netflix Inc	Retailing	5	6	399.62MLN	2.055	1.21MLN
2) Zillow Inc	Software & Services			26.24MLN	11.42	4.48MLN
3) LinkedIn Corp	Software & Services			7.71MLN	0.032	32,145
4) Workday Inc	Software & Services			7.58MLN	0.402	696,901
5) Microsoft Corp	Software & Services			6.18MLN	0.002	177,000
6) Facebook Inc	Software & Services			5.52MLN	0.006	105,658
7) OpenTable Inc	Software & Services			3.71MLN	0.233	53,499
8) Expedia Inc	Retailing			2.39MLN	0.063	77,269
9) Accenture PLC	Software & Services			2.05MLN	0.004	28,145
10) Fair Isaac Corp	Software & Services			1.28MLN	0.066	23,363
11) Google Inc	Software & Services			743,032		836
12) Advent Software Inc	Software & Services			731,336	0.043	22,600
13) Electronic Arts Inc	Software & Services		1	261,833	0.003	10,674
14) MoneyGram International I	Software & Services			192,977	0.017	9,771
15) HomeAway Inc	Retailing			33,634	0.001	1,186
16) Glu Mobile Inc	Software & Services			11,548	0.005	3,666
17) TechTarget Inc	Software & Services			3,894	0.002	782
18) Logitech International SA	Technology Hardware &			428,094	0.028	47,833

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Pandora Media Inc.:

<pre></pre>	ation, <menu> for s ngs in detail</menu>	imilar	functio	ns.		
P US Equity Curr	rency USD 🔹 🛛 🛛 Pa	ndora M	ledia Inc	М	anagement'	s Holdings
Security	GICS Industry	Exec	Board↓	Mkt Val	%Outstd	Shares
1) Pandora Media Inc	Software & Services	4	6	169.16MLN	3.248	6.24MLN
2) LinkedIn Corp	Software & Services			46.07MLN	0.192	191,938
3) American Express Co	Diversified Financials			1.96MLN	0.002	24,400
4) Dolby Laboratories Inc	Technology Hardware &			1.19MLN	0.072	33,901
5) Nokia OYJ	Technology Hardware &			406,379	0.002	56,554
6) Twenty-First Century Fox	: In Media			311,111	0.001	9,065
7) Autodesk Inc	Software & Services			176,673	0.002	4,372
8) Brightcove Inc	Software & Services			34,700	0.009	2,500
9) Jupiter Media Metrix Inc					0.525	189,200

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2013 Bloomberg Finance L.P. SN 104008 EDT GMT-4:00 G627-4795-2 20-0ct-2013 17:55:47

APPENDIX C - EXHIBIT OF EXECUTIVES / BOARD OF DIRECTORS / COMMITTEES

The Walt Disney Company: Executives

US Equity 91) Alerts		A set of the	And the second second second	Profiles
Executives 82 Board 83 Committees			-	Age F
	A EXEC 88) Top Comp: 68.92(Performance Data Show Mana		Approx	Age
art Name	Title	Board	Age	Sta
1) Robert A Iger "Bob"(Pending)	Chairman/CE0	V	62	03/13/1
2) James A Rasulo "Jay"	Senior Exec VP/CFO		57	01/01/1
3) Alan N Braverman	Senior Exec VP/Secy/Gen Cnsl		65	01/28/0
4) Mary Jayne Parker	Exec VP:Human Resources/Chi	ief H	*51	09/01/0
5) Kevin A Mayer	Exec VP:Corporate Strategy		*51	06/30/0
6) Lowell J Singer	Senior VP:Investor Relations			05/0

The Walt Disney Company: Board of Directors

	Equity 91) Alerts ecutives 82 Board 83 Committees 8	4 Changes 85	Manag Interlocks 80 Summ	gement Profiles Jarv
	ISNEY CO 87) FA EXE	· · · · · · · · · · · · · · · · · · ·		Approx Age
	Show Career Histories Show Perfor	mance Data	Show Board History	
hart	Name	Age	Tenure	Sta
	Chairman			
~	 Robert A Iger "Bob" (Pending) 	62	1.7	03/13/20
	Lead Director			
~	2) Orin C Smith	71	1.7	03/13/20
	Board Member			
	Judith L Estrin "Judy"	*58	15.4	06/19
	4) Monica C Lozano	*57	13.1	09/18/20
	Robert W Matschullat "Bob"	65	10.8	12/03/20
	6) Aylwin B Lewis	*59	9.9	01/01/20
	7) John S Chen	58	9.9	01/20
	8) Fred Horst Langhammer	69	8.9	01/03/20
	9) Susan E Arnold	59	6.5	05/01/20
	10) Sheryl Kara Sandberg	44	3.7	03/20

The Walt Disney Company: Committees

IS US Equity 91) Alerts 81) Executives 82 Board 83) Committe	es 84 Changes 85 Inter	Management F locks 80 Summary	rofiles
VALT DISNEY CO			* Approx Age	~
Board Committees		Name	Title	Ag
Audit	1)	Robert W Matschullat "Bob"	Chairman	6
	2)	Monica C Lozano	Member	*5
	3)	Orin C Smith	Member	7
Compensation	4)	Susan E Arnold	Chairman	5
	5)	John S Chen	Member	5
	6)	Fred Horst Langhammer	Member	6
	7)	Aylwin B Lewis	Member	*5
Executive	8)	Orin C Smith	Chairman	7
Governance & Nominating	9)	Aylwin B Lewis	Chairman	*5
	10)	Judith L Estrin "Judy"	Member	*5
	11)	Robert W Matschullat "Bob"	Member	6
	12)	Sheryl Kara Sandberg	Member	4

Madison Square Garden Company: Executives

KMenu MSG US	US Equity MGMT > To Return S Equity 91) Alerts ecutives 82 Board 83	Page 1/ Committees 89 Changes 89 Interlocks			t Profiles
MADIS	ON SQUARE-A Show Career Histories	87) FA EXEC 88) Top Comp: 20.73(US Show Performance Data Show Manage	D) *	Approx	x Age 📈
Chart	Name	Title	Board	Age	Start
~~	1) James L Dolan "Jim"	Chairman	V	58	07/09
~~	2) Hank J Ratner	President/CE0		*54	07/29/09
~~	3) Robert M Pollichino	Exec VP/CF0		*58	07/29/09
	4) Lawrence J Burian	Exec VP/Secretary/Gen Cnsl		*43	05/06/11
	5) Joseph F Yospe	Senior VP/Controller		*55	02/26/10
	6) Robert J Lynn	Senior VP: Treasury & Investor		*49	05/24/10
Austral Japan 8	ia 61 2 9777 8600 Brazil 5511 : 1 3 3201 8900 Singapore 6	3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1 5 6212 1000 U.S. 1 212 318 2000 Copyright SN 104008 EDT GMT-4:00 6627-	2013 Bloom	berg F:	inance L.P.

Madison Square Garden Company: Board of Directors

	N SQUARE-A 87) FA E Show Career Histories Show Per		np: 1.89(USD) * ow Board History	Approx Age
hart	Name	Age	Tenure	Sta
	Chairman			
~~	1) James L Dolan "Jim"	58	4.3	07/20
	Board Member			
	2) Charles Francis Dolan	87	4.3	07/29/20
	3) Alan D Schwartz	63	3.8	02/09/20
	4) Vincent S Tese	*70	3.8	02/09/20
	5) Thomas Charles Dolan	*61	3.8	02/09/20
	6) Deborah A Dolan-Sweeney	*49	3.8	02/09/20
	7) Marianne Dolan Weber	*56	3.8	02/09/20
	8) Brian G Sweeney	*49	3.8	02/09/20
	9) Kristin A Dolan	*47	3.8	02/09/20
	10) Richard D Parsons	65	3.8	02/20
	11) Charles P Dolan	*26	3.3	07/21/20
	12) Wilton Hildenbrand "Wilt"	*65	1.9	11/30/20

Madison Square Garden Company: Committees

MSG US Equity MGMT <menu> To Return</menu>			
MSG US Equity 91) Alerts		Management Profil	es
	mmittees 84 Changes 85 Int	erlocks 86) Summary	
MADISON SQUARE-A	N	* Approx Age	<u></u>
Board Committees	Name		Age
Audit	1) Vincent S Tese		*70
	2) Richard D Parsons	Member	65
	3) Alan D Schwartz	Member	63
Compensation	4) Alan D Schwartz	Chairman	63
compensation	5) Vincent S Tese	Member	*70
Australia 61 2 9777 8600 Brazil 5511 3048 Japan 81 3 3201 8900 Singapore 65 62	3 4500 Europe 44 20 7330 7500 Germany 212 1000 U.S. 1 212 318 2000 SN 104008 EDT GN	49 69 9204 1210 Hong Kong 852 2977 60 Copyright 2013 Bloomberg Finance L. 1T-4:00 6627-4795-2 20-0ct-2013 17:39:	000 .P. 14

Live Nation Entertainment: Executives

US Equity 91) Alerts	Page		COLUMN TWO IS NOT	t Profiles
Executives 82 Board 83 Committee			-	A
) FA EXEC 88) Top Comp: 62.32(1 v Performance Data Show Mana		Approx	Age
art Name	Title	Board	Age	Sta
1) Michael J Rapino "Mike"	President/CE0		*48	01/09/0
2) Kathy Willard	Chief Financial Officer		47	09/0
3) Joe Berchtold	Chief Operating Officer		*48	04/1
4) Maili Bergman	Senior VP: Investor Relations			
5) Michael G Rowles	Secretary/General Counsel		*47	05/

Live Nation Entertainment: Board of Directors

	utives 82 Board 83 Committees	84) Changes 85) In	terlocks 🔰 86) Summ	lary
	ION ENTE 87) FA EX Show Career Histories ■ Show Perfo		mp: 2.26(USD) * how Board History	Approx Age 🗧
hart	Name	Age	Tenure	Sta
_	Chairman			
~~	1) Gregory B Maffei "Greg"	53	0.7	03/14/201
	Board Member			
	2) Jeffrey T Hinson	*58	7.8	12/27/200
	Michael J Rapino "Mike"	*48	7.9	01/09/200
	Robert Ted Enloe III	*74	6.8	12/14/200
	5) James S Kahan "Jim"	*65	6.1	09/200
	6) Ariel Z Emanuel "Ari"	*52	6.1	09/200
	7) Mark S Shapiro	*43	4.9	11/200
	8) Randall T Mays	48	3.8	01/27/201
	9) Mark D Carleton	*52	3.8	01/27/20:
	10) Margaret L Johnson "Peggy"	*51	0.4	06/20/20:
	11) Jonathan L Dolgen	*67		
		π 07		

Live Nation Entertainment: Committees

YV US Equity 91) Alerts 81) Executives 82) Board 83) Committe	es 84) Changes 85) Inte	Management F erlocks 80 Summary	
IVE NATION ENTE			* Approx Age	~
Board Committees		Name	Title	Ag
ludit	1)	Jeffrey T Hinson	Chairman	*5
	2)	Jonathan L Dolgen	Member	*6
	3)	James S Kahan "Jim"	Member	*6
Compensation	4)	Robert Ted Enloe III	Chairman	*7
	5)	Mark D Carleton	Member	*5
	6)	Mark S Shapiro	Member	*4
xecutive	7)	Gregory B Maffei "Greg"	Chairman	5
	8)	Randall T Mays	Member	5
		Michael J Rapino "Mike"	Member	*4
lominating & Governance	10)	Randall T Mays	Chairman	4
	11)	Mark D Carleton	Member	*5
	12)	Ariel Z Emanuel "Ari"	Member	*2

Netflix Inc.: Executives

<menu NFLX U</menu 	(US Equity MGMT)> To Return JS Equity 91) Alerts	Page 1/1	and the second second second	And in the other states of the	t Profiles
NETFLI	Recutives 82 Board 83 IX INC Show Career Histories	Committees 84 Changes 85 Interlocks 86 87) FA EXEC 89) Top Comp: 21.83(USD) Show Performance Data Show Managem	*)	Approx	Age 🛃
Chart	Name	Title	Board	Age	Start
BB	 Reed Hastings David B Wells Neil Hunt Jonathan Friedland Bill Holmes Kelly Bennett Ted Sarandos Tawni Cranz Ellie Mertz Yury Izrailevsky Ken Florance 	Chairman/President/CEO Chief Financial Officer Chief Product Officer Chief Communications Officer Chief Business Dev Officer Chief Marketing Officer Chief Content Officer Chief Talent Officer VP: Investor Relations VP: Cloud Computing VP: Content Delivery	~	53 *42 *51 *43 *43 *41 *48 *39	08/29/97 12/10/10 2002 01/20/12 06/14/12 07/23/12 2000 10/12
Austra	12) David Hyman	3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 121 S 212 1000 U.S. 1 212 318 2000 Copuright 20 S 104008 EDT GMT-4:00 6627-47	D Hong K	*47 ong 852	2002 2977 6000

Netflix Inc.: Board of Directors

			Approx Age
		now Board History	
Name	Age	Tenure	Sta
Chairman			
Reed Hastings	53	16.2	08/29/199
Board Member			
Timothy M Haley "Tim"	*58	15.4	06/19
	*54	14.4	06/19
		11.5	05/20
		8.4	06/20
Charles H Giancarlo "Charlie"		6.6	04/04/20
Ann Mather		3.3	07/01/20
			01/20/20
) Reed Hastings Board Member) Timothy M Haley "Tim") Jay C Hoag) Richard N Barton "Rich") A George Battle "Skip"	Reed Hastings53Board Member53) Timothy M Haley "Tim"*58) Jay C Hoag*54) Richard N Barton "Rich"46) A George Battle "Skip"*69) Charles H Giancarlo "Charlie"55) Ann Mather53	Reed Hastings5316.2Board Member*5815.4) Timothy M Haley "Tim"*5815.4) Jay C Hoag*5414.4) Richard N Barton "Rich"4611.5) A George Battle "Skip"*698.4) Charles H Giancarlo "Charlie"556.6) Ann Mather533.3

Netflix Inc.: Committees

NFLX US Equity 91) Alerts 81) Executives 82 Board 83	Committees		nagement Profiles
NETFLIX INC	committees 04 c		oprox Age 🗠
Board Committees	Name	Title	Age
Audit	1) Ann Mathe	r Chairman	53
	2) Richard N	Barton "Rich" Member	46
	3) Timothy M	I Haley "Tim" Member	*58
Compensation	4) Timothy M	I Haley "Tim" Chairman	*58
	5) A George	Battle "Skip" Member	*69
	6) Jay C Hoa		*54
Nominating & Governance	7) Jay C Hoa	g Chairman	*54
	8) Richard N	Barton "Rich" Member	46
Stock Options	9) Reed Hast	ings Member	53

Pandora Media Inc.: Executives

	quity 91) Alerts ecutives 82 Board 83 Commit	Page 1 tees 84 Changes 85 Interlocks			t Profiles
NDC	DRA MEDIA IN 8	7) FA EXEC 88) Top Comp: 10.83(U	SD) *	Approx	Age
art	Show Career Histories Show Career Histories	w Performance Data Show Manag	ement His Board	-	Sta
	1) Brian P McAndrews	Chairman/President/CE0		Age 54	09/11/
~	2) Tim Westergren	Chief Strategy Ofcr/Co-Founder		47	07/11/
	3) Simon Fleming-Wood	Chief Marketing Officer	~	47 *44	10/
	4) John Trimble	Chief Revenue Officer		*44	03/
~	5) Michael S Herring	Exec VP/CF0		*49	02/04/
N N	6) Thomas Conrad "Tom"	Exec VP:Product/CTO		*43	02/04/
	7) Delida Costin	Senior VP/Secretary/Gen Cnsl		*43	04/
	8) Tommy Page	VP:Artist & Brand Partnerships		* 1 0	05/08/
	9) Dominic Paschel	VP:Corporate Finance			03/00/
	y Dominic Paschet	VP, corporace i mance			

Pandora Media Inc.: Board of Directors

US Eq 1) Exe	uity 91) Alerts cutives 82 Board 83 Commi	ttees 84 Changes	Mana 85) Interlocks 86) Sumn	igement Profiles
NDOR	A MEDIA IN			Approx Age
hart	Name	Age	Tenure	Sta
	Chairman			
~~	1) Brian P McAndrews	54	0.1	09/11/201
	Lead Director			
~~	Robert M Kavner "Bob"	70	3.7	03/201
	Board Member			
	3) Peter C Gotcher	54	8.1	09/200
	4) James McDowell Preston Fe	uille "Jim" +55	8.0	10/200
	5) David Sze	*47	4.5	05/200
	6) Peter F Chernin	62	2.9	01/201
	7) Elizabeth A Nelson "Betsey"	*52	0.3	07/15/201
	8) Tim Westergren	47		

Pandora Media Inc.: Committees

US Equity 91) Alerts				Management Pro	ofiles
81) Executives 82) Board 83) Co ANDORA MEDIA IN	mmitte	ees 84 Changes 85 Inter	IOCKS 8	6) Summary * Approx Age	Ł
oard Committees		Name	Title		Ag
Audit	1)	Robert M Kavner "Bob"	Chairman		7
	2)	Peter C Gotcher	Member		
	3)	Elizabeth A Nelson "Betsey"	Member		*
	4)	David Sze	Member		*
Compensation	5)	James McDowell Preston Feuille	Chairman		*
	6)	Peter C Gotcher	Member		
	7)	Robert M Kavner "Bob"	Member		
Nominating & Corporate Governance	8)	Peter C Gotcher	Chairman		
	9)	James McDowell Preston Feuille	Member		*
	10)	Robert M Kavner "Bob"	Member		

APPENDIX D -

EXAMPLE OF WALT DISNEY COMPANY'S

ENVIRONMENTAL, SOCIAL & GOVERNANCE DISCLOSURE SCORE:

DIS US Equity % Settings	97) Action	is 🔹 98) (99) Feedback		ial Analysis
Walt Disney Co/The				eriods 12 Annu		urrency USD
1) Key Stats 2) I/S 3) B/S 4) C/F	And a second sec	Segments	7) Addl & E	ACTIVITY IN A	the state of the second second second second	
11) Overview 12) Environmental 13) Socia				10 ESG Ratios	17) Carbon Disc	Contraction of the local division of the loc
In Millions (except Per Share)	FY 2012	FY 2011	FY 2010	FY 2009	FY 2008	FY 2007
12 Months Ending	2012-09-29	2011-10-01	2010-10-02	2009-10-03	2008-09-27	2007-09-29
💷 ESG Disclosure Score	37.60	36.36	36.36	35.12	35.12	17.77
Environmental						
Environmental Disclosure Score	26.36	28.68	26.36	24.03	24.03	9.30
Total GHG Emissions	1,651.95	1,524.80	1,465.78	1,496.79	1,532.36	7.30
	1,001.70	1,024.00	1,403.10	1,470117	1,002.00	
Total Waste	314.49	303.20	302.90	285.88	266.20	
						111
						4
Social						
📶 Social Disclosure Score	38.60	38.60	38.60	43.86	43.86	3.51
Number of Employees	157,010	141,260	134,532	129,928	136,748	137,000
💷 % Women in Workforce	51.00	52.00	52.00	61.00	62.00	
👥 % Women in Mgt	44.00	44.00	43.00	43.00	44.00	7.7
👥 🍇 Minorities in Workforce				50.00	48.00	55
👥 % Minorities in Mgt				21.00	21.00	
📶 Community Spending	292.20	248.50	198.00	230.00	209.00	
Community Spending	292.20	240.30	190.00	230,00	209.00	
Governance						
Governance Disclosure Score	62.50	51.79	57.14	51.79	51.79	51.79
III Size of the Board	10	13	13	12	12	12
Indep Directors	9	10	10	9	9	9
* Indep Directors	90.00	76.92	76.92	75.00	75.00	75.00
📶 Board Duration (Years)	1	1	1	1	1	1
💷 # Board Meetings	7	5	8	9	6	7
📶 Board Mtg Attendance	75.00	75.00	75.00	75.00	75.00	75.00
📶 Political Donations	0.19					

APPENDIX E – RAW BETA REGRESSION STATISTICS:

DIS US \$ 38×77 C 68.97 +1.20 N68.96/68.97N On 13 Nov d Vol 5,691,005 0 67.43⊺ H 68.99D L 67.303D Val 389.038M Historical Beta Relative Index SPX In . Range 11/08/2008 Period . Local CLIR ast Price Non-Parametric Linear 🔳 Beta +/ad Y = WALT DISNEY CO/THE Y=1.164X+0.233 X = S&P 500 INDEX 8-Item Value Raw BETA 1.164 Adjusted BETA 1.109 ALPHA(Intercept) R^2(Correlation^2) R(Correlation) 0.233 0.534 0.731 Std Dev of Error 1.951 Std Error of ALPHA 0.197 Std Error of BETA 0.108 t-Test 10.752 Significance 0.000 Last T-Value -0.739 Last P-Value 0.231 Number of Points -6-103 Last Observation ł -5 6 f X= \$PX index 9777 8600 Brazil 5511 3048 4500 Eu 8900 Singapore 65 6212 1000 / 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000 212 318 2000 Copyright 2013 Bloomberg Finance L.P. SN 104008 EST GMT-5:00 6576-3001-1 13-Nov-2013 21:08:05 Australia 61 2 Japan 81 3 3201 U.S

The Walt Disney Company - Beta Regression:

Madison Square Garden Company - Beta Regression:





Live Nation Entertainment – Beta Regression:

Netflix Inc. - Beta Regression:



Pandora Media Inc. – Beta Regression:



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