

CORPORATE FINANCE PROJECT

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Executive Summary

Company	Starbucks	MCD	CMG	TSN
Power	2	2	0	1
Approach	B	B	B	B
Beta	0.85	0.97	0.73	1.09
Jensen's Alpha	1.11%	-1.25%	36.95%	-0.32%
R squared	23.50%	23.50%	4.40%	7.80%
ROE - COE	30.32%	27.44%	15.67%	0.24%
ROC - WACC	15.58%	13.92%	15.64%	-0.77%
EVA (million)	\$1,409	\$3,587	\$333	-\$128
Current Debt ratio	11.92%	34.99%	2.45%	35.54%
Optimal Debt Ratio	40%	50%	30%	60%
Change in WACC	-0.43%	-0.41%	-0.39%	-0.51%
Change in value	21.71%	15.64%	9.49%	18.59%
Dividends (million)	\$826	\$6,180	\$0	-\$2,004
FCFE (million)	\$863	\$2,111	\$429	\$6,320
Value/share	\$42.57	\$97.96	\$408.50	\$53.43
Price/Share	\$49.78	\$98.23	\$633.82	\$49.78

Introduction

For the project, our team chose a group of companies that we feel represent different stages of maturity and focus in the food and restaurant industry. The four companies we selected are Starbucks (SBUX), McDonald's (MCD), Chipotle (CMG), and Tyson Foods (TSN).

Starbucks is the premier roaster, marketer and retailer of specialty coffee in the world, operating in 65 countries. Formed in 1985, Starbucks Corporation's common stock trades on the NASDAQ Global Select Market under the symbol "SBUX". They purchase and roast high-quality coffees that they sell, along with handcrafted coffee, tea and other beverages and a variety of fresh food items, through company-operated stores. They also sell a variety of coffee and tea products and license their trademarks through other channels such as licensed stores, grocery and national food service accounts. In addition to their flagship Starbucks Coffee brand, they also sell goods and services under the following brands: Teavana, Tazo, Seattle's Best Coffee, Evolution Fresh, La Boulange and Ethos.

McDonald's operates and franchises hamburger fast-food restaurants, serving nearly 70 million customers daily at around 35,000 outlets in 119 countries. The company views itself primarily as a franchisor, with the vast majority of McDonald's restaurants (approximately 80%) owned and operated as independent franchisees. McDonald's restaurants offer a substantially uniform menu but they offer geographic variations to suit local consumer preferences and tastes.

Chipotle is a leader within the "fast casual" dining industry and serves tacos, burritos, burrito bowls, and salads with fresh ingredients. With nearly 1,800 outlets in the US and Europe (with the majority of the locations in the US) Chipotle has seen tremendous growth in the past few years and plans to open over 200 additional restaurants in 2015. Chipotle's restaurants also include nine Chophouse South Asian Kitchen restaurants and two Pizzeria Locale restaurants, another "fast casual" restaurant.

Tyson Foods, founded in 1935, is one of the world's largest producers of chicken, beef, pork and prepared foods and includes leading brands such as Tyson®, Jimmy Dean®, Sara Lee® frozen bakery, Ball Park®, Wright®, Aidells®, State Fair®, and Hillshire Farm®.

Corporate governance analysis

In the corporate governance analysis, we evaluated to what degree the managers in the company work with the interests of shareholders in mind. While this is difficult to assess purely in terms of observable quantitative metrics, we have collected some information regarding the boards and executive committees of our companies, and have attempted to use this, along with some anecdotal information to assess the degree of responsiveness of managers to shareholder interests and demands.

Relative to each other, and to other peers in similar industries, one of the things that stands out is the fact that the executive compensation for Chipotle's managers appears to be significantly higher than the rest. This is most likely due to the fact that the performance-linked portion of executive compensation is extremely high, and Chipotle has seen rapid growth in recent years. However, as past evidence shows, a compensation structure that heavily rewards growth often encourages

excessive risk-taking, which may be detrimental in the long-run. It is therefore an area which shareholders may have concerns about.

	SBUX	MCD	CMG	TSN
Executives (peers)				
Number of Executives	7 (10)	12 (9)	5 (10)	15 (11)
Average Reported Compensation (million)	8.4 (4.2)	2.5 (4.8)	18.2 (3.3)	7.7 (4.4)
Average Age	56.7 (53)	N/A (53)	53 (N/A)	N/A (N/A)
Average Tenure (Years)	12.6 (9.3)	17.8 (9.4)	9.7 (9.8)	12 (12.3)
Board Members (peers)				
Number of Board Members	12 (10)	14 (10)	9 (10)	8 (12)
Non-employee Directors	10 (8)	13 (8)	7 (8)	6 (10)
(Percentage)	83.3% (80%)	92.9% (80%)	77.8% (80%)	75% (83.3%)
Members Owning Shares	12 (9)	11 (9)	7 (9)	8 (11)
(Percentage)	100% (90%)	78.6% (90%)	77.8% (90%)	100% (91.7%)
Shares Held	2.6% (1.7%)	0% (3.3%)	.8% (2.5%)	.6% (1.6%)
Average Meeting Attendance	75% (75%)	75% (75%)	75% (75%)	97% (79.9%)
On Boards of Peers	0 (0.2)	0 (0)	0 (0)	0 (0.2)
(Percentage)	0% (2%)	0% (0%)	0% (0%)	0% (1.7%)
On Boards of Other Companies	12 (8)	12 (7)	4 (8)	4 (9)
(Percentage)	100% (78%)	85.7% (73%)	44.4% (77%)	50% (77.5%)
Average Age	67.3 (58.6)	63.1 (60.6)	N/A (61.3)	N/A (66.5)
Average Tenure (Years)	12 (8.1)	12.2 (8.1)	11.4 (8.2)	12.5 (8.6)

One consistent positive factor across the companies is that the majority of directors are shareholders, which leads us to believe that they will largely act in the interests of shareholders. Conversely, in the case of Starbucks and McDonald's, the majority of board members serve on other boards as well, in some cases on several other boards, therefore their commitment to shareholders of any one firm may be slightly questionable. In order to further assess the intricacies of the corporate governance issues across these companies, we utilized ISS Governance QuickScore, and read into the company policies regarding some of the issues that were highlighted as red flags by the ISS methodology.

	SBUX	MCD	CMG	TSN
Yahoo Finance QuickScore				
Overall	1	5	10	8
Audit	1	1	2	2
Board	6	9	4	10
Shareholder Rights	1	6	10	5
Compensation	1	4	10	9

The main area of concern across the companies appears to be board structure and board policies. In many cases, the requirement of independence is only insofar as the term “independent” is defined in the New York Stock Exchange, which is not especially stringent. Furthermore, certain board policies were also highlighted as not being in the best interest of shareholders. In the case of Tyson and McDonald’s in particular, the policies surrounding the termination of non-performing executives appears to be a concern.

In the case of McDonald’s, the company has made several changes in recent months to the upper management after a significant period of time, responding in part to shareholder dissatisfaction with the company’s performance. This is a positive reflection on the company’s respect for shareholders. We also feel that the score for Tyson does not take into account a few factors; firstly, John Tyson, Chairman of the Board, is the grandson of the company’s founder, and maintains a significant interest in the company through the Tyson Limited Partnership. Secondly, stock ownership rules serve as a significant incentive for managers, forcing them to own as much as three times their annual salaries in the form of stock (with five years to reach that level); however, the rules are easy to escape: failing to achieve that level merely results in the replacement of 25% of their cash bonus in the form of stock, so it is technically easy to get around. Finally, the CEO, Donnie Smith, has been with the company since 1980, working in several business units, and appears to care about the company’s long-term success.

Starbucks appears to have the strongest corporate governance framework amongst our set of companies, as opposed to Chipotle. Chipotle has several issues within its corporate governance that impact shareholder rights, the board appears to be entrenched and the ability of the shareholders to remove a director during a period of non-performance appears to be low. This is characterized by the fact that Chipotle does not require a majority of votes for a particular candidate to be re-appointed to the board during an uncontested election, which means that single for vote is enough to reappoint a director. Further, unlike most other companies where all directors are nominated and voted for every year, the Chipotle board has a staggered tenure system. All of these issues, combined with takeover defenses that have been instituted, point towards extremely poor corporate governance standards and low shareholder rights. While company performance in recent years has been excellent, and shareholders currently are unlikely to have major concerns regarding decision making by managers, in the event of sustained underperformance, these issues are likely to come to the fore.

Social Responsibility

Amongst our set of companies, the company with the clearest and most tangible social agenda is Chipotle. The company’s commitment to “Food with Integrity” is not merely a part of its CSR initiatives, but a fundamental part of the brand and the business model that the company employs. By partnering with farmers and encouraging sustainable farming and non-GMO ingredients,

Chipotle is amongst the few food-related companies which has managed to integrate its social responsibility efforts into its identity successfully at such a large scale.

Starbucks also claims to make efforts towards the development of sustainable relationships with its growers, but the social efforts do not appear to be a central theme as in the case of Chipotle. Tyson Foods partners with hunger relief organizations in the effort toward food security, recently marking its tenth year as partner with *Share Our Strength*. More broadly, Tyson’s dedication to social responsibility is obvious insofar as the company seems committed to providing safe and high-quality products. That said, the company’s efforts in the way of animal well-being seem superficial, and unlike some other meat processors like Cargill, Tyson Foods does not appear eager to push the envelope as far as advocating for non-GMO products or other new-age fads. Nevertheless, this orientation is in the shareholders’ best interest, as it keeps costs down without damaging the brand very much or at all. An interesting development in this regard is the fact that McDonald’s, a company that is not particularly associated with a high degree of commitment to quality ingredients, recently refused to use GM potatoes to produce fries, possibly as part of a response to the increasing perceived health risks of GMOs.

Stockholder analysis

In this section, we attempt to identify the marginal investors in an effort to understand whether the basic assumptions of the CAPM method are applicable. In the event that marginal investors are well diversified institutional investors, the assumption behind the CAPM is satisfied.

	SBUX	MCD	CMG	TSN
% of Shares Held by Institutional investors	78.09%	68.91%	92%	98.48%
% of Float Held by Institutional investors	80.24%	100%	107.77%	68.94%
% of Shares Held by Insiders	2.67%	0.05%	1.75%	1.14%

It is clear that the marginal investors are institutional investors for all four companies by looking at the % of Float held by institutional investors. Therefore, the assumption of CAPM is satisfied for these companies.

Risk and return

In this section, we calculate the hurdle rates for our companies and analyze their risk and return profiles by regression analysis. The regression betas in this industry are low because their businesses have relatively low risk and are not cyclical; this corresponds to intuition, as Starbucks, McDonald’s and Chipotle do not operate in the high-end fine-dining space which would likely have a far greater sensitivity to economic cycles, and Tyson operates in the meat processing business, another industry which is characterized by relatively stable demand patterns over time.

	SBUX	MCD	CMG	TSN
Regression				
Regression Beta	0.77	0.50	0.48	0.66
Alpha (Intercept)	1.61%	-0.17%	38.08%	0.42%
Jensen's Alpha	1.11%	-1.25%	36.95%	-0.32%
R Square	23.50%	23.50%	4.40%	7.80%

In terms of alpha, Chipotle is the one company amongst our set that has seen exceptional return compared to the market, which essentially means that the company's stock has generated an abnormal rate of return in excess of what would be predicted by the CAPM. This is also along the lines of what one would typically expect to see for a company still relatively early in the growth cycle, as compared to the three other mature entities. In fact, Tyson and McDonald's have seen negative Alphas, potentially one of the factors that has driven the recent rejig in management at McDonald's as well as Tyson's recent acquisition. Further, it should be noted that the regression R squares for Chipotle and Tyson are low, which implies that the movements of the price of these companies are more independent from the market than other companies.

Hurdle rate calculations

A reflection of the businesses that they operate in (fast-food restaurants, non-alcoholic beverages and food processing), the bottom up unlevered betas for our set of companies are relatively low. However, the levered betas are different depending on the financial leverage employed by the companies (i.e. their debt ratios).

	SBUX	MCD	CMG	TSN
Cost of Debt				
Risk Free Rate	2.17%	2.17%	2.17%	2.17%
Interest Expense (million)	\$64	\$551	\$0	\$132
EBIT (million)	\$3,081	\$7,968	\$711	\$1,430
Interest Coverage Ratio	48.07	14.47	N.A.	10.83
Rating	AAA	AAA	BBB	BBB
Spread	1.30%	1.30%	2.00%	2.00%
Cost of Debt	3.47%	3.47%	4.17%	4.17%

The impact of leverage is most significant for Starbucks, which has the highest levered beta amongst our set of companies. It should also be noted that the large difference between the market value and book value of debt for McDonald's is due to large lease commitments as well as

minimum rent payment obligations that it has across the globe. Conversely, Chipotle has no long-term debt or lease commitments, and as a result, the short term debt outstanding has the same market value and book value.

Cost of Equity	SBUX	MCD	CMG	TSN
Unlevered Beta	0.78	0.72	0.72	0.80
#Shares (million)	753.10	961.12	31.00	304.57
Stock Price	\$77.21	\$96.13	\$684.51	\$40.67
Equity (million, Market)	\$58,147	\$92,392	\$21,220	\$12,387
Debt (million, Market)	\$7,870	\$49,721	\$534	\$6,829
Equity (million, Book)	\$5,274	\$12,853	\$2,012	\$8,904
Debt (million, Book)	\$5,479	\$14,990	\$534	\$8,178
Cash	\$1,708	\$2,078	\$419	\$438
Debt Ratio (Market)	11.92%	34.99%	2.45%	35.54%
Debt Ratio (Book)	50.96%	53.84%	20.97%	47.87%
Debt Ratio (Market, Net)	9.33%	33.52%	0.53%	33.26%
Debt Ratio (Book, Net)	35.07%	46.37%	4.49%	45.31%
Marginal Tax Rate	35.00%	35.00%	35%	35.00%
Levered Beta (Market)	0.85	0.97	0.73	1.09
Levered Beta (Book, Net)	1.14	1.19	0.75	1.25
Risk Premium	5.91%	6.22%	5.75%	5.75%
Cost of Equity (Market)	7.16%	8.21%	6.38%	8.42%
Cost of Equity (Book, Net)	8.89%	9.57%	6.46%	9.37%
Cost of Capital				
Cost of Capital (Market)	6.58%	6.13%	6.29%	6.39%
Cost of Capital (Book, Net)	6.57%	6.18%	6.29%	6.35%

Note: The credit rating for Chipotle is synthetic as the company does not have an outstanding credit rating from a certified rating agency at this time.

Tyson and Chipotle operate primarily in the United States with limited international presence, and as a result, their equity risk premiums (ERPs) are relatively lower. Starbucks and McDonald's do have a substantial presence in emerging markets, which is reflected in the slightly higher ERPs for the two companies (which have been calculated using the revenue weights for the top markets for both companies).

The cost of capital for our set varies between 6.13% (McDonald's) and 6.58% (Starbucks).

Measuring investment returns

In this section, we calculate the Return on Equity and Return on Capital for the firms in our set and contrast that against our cost of capital calculations in the previous section in order to ascertain whether these firms have been generating returns on the investments that they have made in excess of the cost of capital required to make those investments.

	SBUX	MCD	CMG	TSN
EBIT (million)	\$3,081	\$7,968	\$718	\$1,430
Net Income (million)	\$2,068	\$4,758	\$445	\$856
Tax Rate	35.00%	35.00%	35.00%	35.00%
BV of Debt (million)	\$5,479	\$14,990	\$534	\$8,178
BV of Equity (million)	\$5,274	\$12,853	\$2,012	\$8,904
Cash (million)	\$1,708	\$2,078	\$419	\$438
ROE				
ROE	39.22%	37.02%	22.13%	9.61%
Cost of Equity (Book, Net)	8.89%	9.57%	6.46%	9.37%
ROE - COE	30.32%	27.44%	15.67%	0.24%
ROC				
After-tax ROC	22.14%	20.10%	21.94%	5.58%
Cost of Capital (Book, Net)	6.57%	6.18%	6.29%	6.35%
Return Spread (ROC - WACC)	15.58%	13.92%	15.64%	-0.77%
EVA (million)	\$1,409	\$3,587	\$333	-\$128

Amongst the set of companies that we have considered, three out of four have generated significant excess returns in comparison to the book value of cost of capital. Tyson is an exception in this regard, and the inability to generate significant excess returns over the cost of capital is potentially one of the drivers behind its recent acquisition.

Capital structure choices and optimal capital structure

In this section, we assess the benefits of the debt for the companies qualitatively by focusing on tax benefits, discipline and bankruptcy cost, as well as estimating the optimal capital structure for these companies that is likely to result in the minimum possible cost of capital.

	SBUX	MCD	CMG	TSN
Tax Benefit				
Marginal Tax Rate	35%	35%	35%	35%
EBITDA (million)	\$3,791	\$9,612	\$829	\$1,897
Firm Value (million, Market)	\$58,147	\$92,392	\$21,220	\$12,387
EBITDA/Value	6.52%	10.40%	3.90%	15.31%
(Industry Average)	7.88%	8.21%	8.21%	8.36%
Discipline				
Institutional Holdings	78.09%	68.91%	92.00%	98.48%
(Industry Average)	48.46%	58.06%	58.06%	50.80%
Bankruptcy Cost				
Revenue Volatility	1.75%	5.45%	4.36%	2.38%
Credit Rating	A-	A-	BBB	BBB

In principle, the higher the EBITDA/Value ratio for an entity, the more capacity the company has to take on debt. Based on this principle, we can expect that the optimal debt ratio is most likely to be the highest for Tyson and lowest for Chipotle. Given the fact that the marginal investors for each company in our set are diversified institutional investors, we do not foresee significant disciplinary issues associated with raising debt.

Tyson Foods completed its acquisition of The Hillshire Brands Company in August 2014, purchasing all outstanding shares of the company's common stock for \$63.00 per share in cash, citing \$300 million in synergies "driven primarily by operational efficiencies, purchasing, distribution, supply chain efficiencies, upgrading raw materials and through the combination of the two companies' talented sales and marketing teams and alignment of shared service functions" (Tyson Foods June 9, 2014 press release). Tyson raised about \$5.7 billion in debt to complete the transaction, simultaneously raising about \$2.1 billion in equity so as to "maintain its investment grade credit rating" (press release).

In our opinion, the amount of debt raised was well within the limits of Tyson's debt capacity, as its optimal debt ratio is somewhere close to 60%, well above the 35.5% where it currently sits (optimal capital structure analysis provided below). Indeed, the company would theoretically see a decrease in its cost of capital if it were to increase its share of debt relative to equity, and there is substantial scope to do so. There are several reasons why the company is justified in its reluctance to do so quickly, however. Firstly, although Tyson's revenues have been relatively stable over time (standard deviation of revenue growth = 2.38%), operating income has been extremely volatile (standard deviation of EBIT growth = 16.16%), and although a business should not ideally base its capital structure on the worst case scenario, some prudence seems appropriate

given this relatively large variance in earnings. Furthermore, uncertainty around earnings has increased as a result of the Hillshire Brands acquisition, motivating even more caution going forward. On a separate note, credit rating agencies use a number of qualitative and quantitative criteria in assigning ratings, giving management extra incentive to avoid moving quickly toward its optimal debt ratio, which may be perceived as high.

	SBUX	MCD	CMG	TSN
Cost of Capital				
10%	6.55%	6.22%	6.12%	6.59%
20%	6.34%	6.02%	6.00%	6.37%
30%	6.25%	5.91%	5.90%	6.16%
40%	6.15%	5.78%	8.55%	6.07%
50%	8.81%	5.72%	10.03%	5.93%
60%	10.18%	8.95%	11.08%	5.88%
70%	11.88%	10.39%	12.13%	9.45%
80%	12.93%	12.20%	13.18%	11.00%
90%	13.98%	13.25%	14.23%	11.95%

As we expected from the qualitative analysis, Tyson, highest EBITDA/Firm Value, has the highest optimal debt ratio, while the firm with the lowest ratio, Chipotle, has the lowest optimal debt ratio. In each case, it appears that the companies have the ability to take on more debt than they currently have. The impact on their values, should they choose to move toward their calculated optimal capital structures, is provided below in the subsequent table.

	SBUX	MCD	CMG	TSN
Hurdle Rates				
Debt Ratio	40%	50%	30%	60%
Beta	1.11	1.19	0.92	1.59
Cost of Equity	8.75%	9.19%	7.46%	11.31%
Bond Rating	A-	A-	A-	BBB
Interest Rate on Debt	3.47%	3.47%	3.47%	3.47%
Marginal Tax Rate	35.00%	35.00%	35%	35.00%
Cost of Debt (After-Tax)	2.26%	2.26%	2.26%	2.26%
WACC	6.15%	5.72%	5.90%	5.88%

Firm Value (No growth)				
Enterprise Value (million, Before)	\$64,308	\$140,035	\$21,334	\$20,549
Enterprise Value (million, After)	\$68,773	\$150,071	\$22,733	\$22,174
Increase in Firm Value (million)	\$4,465	\$10,035	\$1,398	\$1,626
Increase in Value per share	\$6	\$10	\$45	\$5
New Stock Price	\$83.14	\$106.57	\$729.62	\$46.01
New Stock Price (Buybacks at Old Price)	\$85.91	\$102.92	\$747.36	\$16.62
Firm Value (Perpetual Growth)				
FCFF (million)	\$1,478	\$4,117	\$935	\$648
Perpetual Growth Rate	4.18%	3.10%	1.83%	3.09%
Enterprise Value (million, After)	\$78,272	\$161,935	\$23,359	\$23,980
Increase in Firm Value (million)	\$13,964	\$21,900	\$2,025	\$3,431
Increase in Value per share	\$19	\$23	\$65	\$11
New Stock Price	\$95.75	\$118.92	\$749.84	\$51.94
New Stock Price (Buybacks at Old Price)	\$104.43	\$125.76	\$775.54	\$59.81

Based on our calculations, by moving to the optimal capital structure, the companies can reduce their cost of capital by between 39 and 51 basis points, leading to increases in firm values of 15.6% to 21.7%. It should be noted, however, that the only criterion that we have used to determine the potential change in credit rating (synthetic) as companies take on more debt is the interest coverage ratio, which may not actually be the case. We also applied a similar approach after considering the impact of EBIT falling three standard deviations below expected levels.

	SBUX	MCD	CMG	TSN
Cost of Capital				
10%	6.55%	6.22%	6.12%	6.59%
20%	6.38%	6.06%	6.04%	6.43%
30%	6.30%	5.94%	7.95%	6.34%
40%	8.25%	5.86%	9.33%	8.85%
50%	9.54%	9.06%	10.38%	10.33%
60%	11.13%	10.65%	11.43%	11.38%

70%	12.18%	11.70%	12.48%	12.43%
80%	13.23%	12.75%	13.53%	13.48%
90%	14.28%	13.80%	14.58%	14.53%

As can be surmised, the impact of this change was most pronounced for Tyson, which has seen a large degree of volatility in EBIT in recent years. It would therefore, as discussed earlier, be prudent for the management to consider a gradual approach to moving towards the optimal capital structure. We have also considered the debt ratios of the firms relative to their respective industries and have calculated the expected debt ratios from a regression based on data from companies across the world.

	SBUX	MCD	CMG	TSN
Debt Ratio				
Debt Ratio (Market)	11.92%	34.99%	2.45%	39.72%
(Industry Average)	20.96%	21.80%	21.80%	21.39%
Estimated Debt Ratio (World Reg)	22.29%	20.93%	18.72%	29.76%

The two most notable observations from this perspective are that Starbucks and Chipotle operate significantly below the expected and industry average values for debt ratios, while McDonald's and Tyson operate significantly above expected values. It should be noted that with more stable earnings, relatively low insider ownership and lower intangible assets, all of these firms could, in principle, comfortably operate with higher debt ratios than the industry average. The case of Tyson in particular is interesting, as the management feels, perhaps rightly, that even though the company has the ability to take on more debt and reduce cost of capital, a further deviation from expected debt levels may result in adverse rating actions. McDonald's, given its relatively stable earnings and size, would probably be able to increase borrowings to a greater degree than Tyson. Based on this analysis, both Starbucks and Chipotle have little to worry about from the point of view of adverse rating actions, as not only are earnings levels high enough to meet repayment obligations, but also they are significantly less leveraged than peers.

Mechanics of moving to the optimal

In this section, we have attempted to use three approaches to try and identify the best possible way for the companies in the peer set to move to their optimal capital structures.

Intuitive approach

As the businesses that our companies operate in seem to have little relation to business cycles and interest rates, our overarching recommendation with regard to choice of debt instruments is fixed rate debt. The company specific details are below:

Starbucks usually operates relatively long term projects (store expansions in dedicated areas) with earnings that increase steadily over time and should not unduly be affected by changes in business cycles and/or interest rates, so a duration of 6-8 years would be appropriate. However, given the fact that the company's expansion efforts are likely to be outside its traditional developed markets, the debt should be issued in a mix of the currencies in which the company expects to earn revenues.

Similar to Starbucks, McDonald's will most likely see growth from expansions in emerging markets where it has relatively lower penetration. Given that the company has the ability to take on more debt, it should do so in the currencies in which it expects to earn revenues. The duration of the debt should be similar to Starbucks; however, McDonald's expansion may be more gradual, as the company is already present in most major emerging markets.

Chipotle, given the fact that rapid expansion is the company's stated agenda, should consider using convertible US dollar and Euro debt, in line with its target markets. As same store sales growth for Chipotle is likely to be significantly higher than Starbucks or McDonald's, it could potentially consider slightly shorter duration loans.

Tyson is the most interesting case amongst our company set. While long term US dollar denominated debt is likely to be the ideal choice of instrument for the company, we feel that the movement toward the optimal capital structure should be gradual. We make this recommendation keeping in mind the increased risk associated with the recent acquisition, as well as the potential for an adverse rating decision if the company takes on too much debt too soon.

Historical approach

Unfortunately, the results of the regression analysis for the variation of EBIT and EV of these firms with respect to the changes in key macroeconomic parameters appear to yield little that is of statistical significance. The only number that seems to have a significant relationship in the table is the variation of the EBIT for Starbucks with GDP. Considering this, we feel that the bottom-up method should provide a more robust method for analysis. Please note, for this purpose we have considered Starbucks to operate in a mix of the restaurant and beverage industry, McDonald's and Chipotle as part of the restaurant industry and Tyson to be part of the meat processing industry (a mixture of poultry processing, other meat processing and meat packing and distribution).

	Eating and Drinking Places	Food and Kindred Products Manufacturers
Bottom Up Approach (EBIT)		
Duration	7.55	4.82
Cyclicalilty	0.59	0.79
Inflation	0.28	0.06
Currency (US\$)	-1.77	-0.05

As surmised earlier, the duration of the debt for the companies in the restaurant sector should be long-term, around 7-8 years, within the range we had estimated using the intuitive approach. The duration for the food business, however, is lower. The relatively low cyclicalilty in both businesses

is also evident from the regression, as earnings do not appear to vary a great deal with changes in GDP. The one thing that we did not consider earlier was the difference in the ability to pass on increases in input costs between the two businesses. As the restaurant business appears to have a greater ability to pass on price increases to customers, those companies should consider a larger proportion of floating rate debt as opposed to Tyson, which appears to operate in a business with lower pricing flexibility; consider the fact that Tyson sells to large retailers such as Walmart, which has significant pricing power compared to the customers of Starbucks, McDonald's, and Chipotle. Therefore, Tyson should have a greater proportion of fixed rate debt.

Dividend policy and framework for dividend analysis going forward

Our analysis of dividend policies yields interesting results as all four of our companies are operating at different stages of the growth life cycle and have substantially different cash balances. As a result, their dividend policies are quite different.

	SBUX	MCD	CMG	TSN
Payout ratio	38.24%	68.00%	0%	12.00%
Dividend Yield	1.24%	3.50%	0%	0.71%

All of our companies are based in the US, so capital gains and dividends are taxed equally, and there appears to be no tax-driven incentive to choose dividends as the mode of wealth transfer to shareholders as opposed to buybacks. Reading the above table, it is easy to surmise at which stage of growth cycle each of the companies operates. McDonald's, the most mature of the set, has the highest dividend payout ratio, followed by Starbucks. On the other hand, Chipotle, a company which is clearly in the rapid expansion phase, currently does not pay dividends.

	SBUX	MCD	CMG	TSN
Dividend Yield				
Dividend Yield	1.24%	3.50%	0%	0.71%
Estimated Dividend Yield (World Reg)	3.15%	3.55%	2.93%	2.82%
(Industry Average)	2.06%	1.88%	1.88%	1.89%
Payout Ratio				
Payout Ratio	38.24%	68.00%	0%	12.00%
Estimated Payout Ratio (World Reg)	47.69%	43.11%	48.85%	46.16%
(Industry Average)	53.64%	55.88%	55.88%	40.22%
Revenue Growth	10.63%	-2.36%	27.80%	7.99%

A consideration of the expected dividend payout and yield (based on a regression with global comparable companies) also reflects what we had discussed earlier. McDonald's, which is mature relative to its peers in the industry, pays out significantly higher dividends. Starbucks, which is

still growing but has a large mature business as well, pays out lower than estimated value, as it is still investing relatively heavily in growth in emerging markets. Tyson is in the interesting case of a mature company looking to get back on the growth track through acquisitions, and as a result it has limited cash on hand and therefore cannot pay dividends.

When we consider how much cash these companies are returning to investors, we see a continuation of the same thread:

Cash/trust assessment

McDonald's appears to have excess cash and is therefore choosing to return cash to shareholders at a far higher rate than its peers in the industry. It may be looking to return cash to shareholders, and if required borrow in the currencies in which they are likely to make further investment. We feel that this approach is consistent with the company's current position, as it has limited growth opportunities in its traditional markets and feels that excess cash is best returned to shareholders.

Starbucks appears to be the case of a company which, while it does return cash to shareholders, it perhaps does so as a signaling tool. By offering dividends and conducting share repurchases, but doing so at a rate lower than the industry average, it is still reinvesting significant capital. Our opinion is that the company is using these methods as a signal to investors that the management feels that the company's cash flow prospects are promising.

	SBUX	MCD	CMG	TSN
Cash Returns				
FCFE (million)	\$863	\$2,111	\$429	\$6,320
Dividends (million)	\$513	\$3,216	\$0	\$104
Buybacks (million)	\$313	\$2,964	0	-\$1,900
Net Income (million)	\$1,384	\$4,758	\$445	\$864
Cash returned / FCFE	95.62%	292.75%	0.00%	-31.71%
(Industry Average)	147.94%	159.83%	159.83%	106.84%
Cash Returned / NI	59.65%	129.89%	0.00%	-231.94%
(Industry Average)	83.11%	84.98%	84.98%	60.34%

Tyson is an interesting case because, as discussed earlier, the company actually recently issued equity in order to protect itself from adverse rating actions associated with its largely debt-funded acquisition. This appears to be the case of a mature company making an effort to return to a higher growth trajectory, although whether or not this is feasible remains to be seen. In terms of dividends, the company currently has little excess cash to return to shareholders, and is therefore unlikely to do so in the near future.

Valuation

In the final section, we aim to conduct a valuation of our companies based on future cash flows and compare them to the current market value of equity. We have varied our assumptions regarding the length of the growth phase, the reinvestment rate etc. for each of the companies and have considered them to be a going concern for the terminal value calculations:

	SBUX	MCD	CMG	TSN
WACC				
Growth Phase	6.58%	6.13%	6.29%	6.39%
Stable Phase	6.33%	5.32%	6.88%	4.79%
Debt Ratio (Stable Phase)	30.00%	50.00%	20.00%	60.00%
Beta (Stable Phase)	1.00	1.00	1.00	1.00
	SBUX	MCD	CMG	TSN
Reinvestment rate				
Growth Phase	18.59%	20%	30%	36.62%
Stable Phase	25.00%	15%	25.00%	25.00%
ROC				
Growth Phase	22.14%	20.10%	21.94%	5.58%
Stable Phase	10.00%	15.00%	10%	10.00%
Growth Rate				
Growth Phase	4.12%	4.02%	6.58%	2.05%
Stable Phase	2.50%	2.25%	2.50%	2.50%
Growth Period (years)	5	5	10	10

The optimal capital structure has been used to calculate the WACC for the growth phase, and the same capital structure with a Beta of 1.0 has been used in the stable phase.

FCFF (Current)	SBUX	MCD	CMG	TSN
EBIT*(1-tax rate) (million)	\$1,815	\$5,179	\$462	\$1,022
Reinvestment (million)	\$338	\$1,036	\$33	\$374
FCFF (million)	\$1,478	\$4,143	\$429	\$648
Equity Value				
PV (million, Growth Phase)	\$6,800	\$19,200	\$3,533	\$5,084
PV (million, Stable Phase)	\$35,746	\$126,865	\$10,748	\$18,995
Operational Assets (million)	\$42,546	\$146,065	\$14,280	\$24,079
Cash (million)	\$1,708	\$2,078	\$419	\$438
Non-Operating investment (million)	\$135	\$1,234	338.592	\$233
Debt (million)	\$7,870	\$52,166	\$534	\$6,829
Minority Interest (million)	\$2	\$0	\$0	\$14
Equity Value (million)	\$32,830	\$95,977	\$12,988	\$16,566
Equity Options (million)	\$772	\$1,825	\$324	292.33
Share Outstanding (million)	753.10	961.12	31.00	304.57
Value/Share	\$42.57	\$97.96	\$408.50	\$53.43
Current Share Price	\$49.78	\$98.23	\$633.82	\$49.78

While our valuation of McDonald's corresponds closely to the market value, the differences between the estimated and actual market value per share for Starbucks and Chipotle (where the variation is the highest) is most likely due to the fact that the market expects higher growth than what we have estimated. In the case of Tyson, there is a lot of uncertainty regarding how the acquisition is likely to play out in terms of earnings, which may be why the market has priced the shares marginally lower than our estimates.