Creating a Financial Model for McDonald's Corporation (A Fundamental Analysis Approach)

By

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9/23/2013

Dedicated to Ms. Lori (Loretta) Anderson for believing in me, to Professor Simon Benninga for creating a framework to model a company, to my parents, to my brother Tony Asante, and to the creator.

Creating a Corporate Financial Model for McDonalds

If you have ever turned on the television to watch Bloomberg News or MSNBC, it would not be surprising to see stock quotes at the bottom of the screen or financialcommentatorsand Wall Street analyst discussing valuations of the S&P 500 companies. How do financial commentators and Wall Street analyst derive at the valuations of a company? What methods and procedures are they using to estimate the intrinsic value? To calculate a value of stock, investment bankers, equity research analyst and portfolio managers use corporate financial models to project the financial statements (pro-forma) of a company. The outputs of the models allow them to use a method such as the discounted cash flow to derive at the price of the business (thorough explanation on DCF will be provided later in the guide) The pro-forma financial model allows the analyst to assess the following:

- How much free cash flow will the company generate in the future under different economic scenarios (financial parameters)
- How will margins due to increased competition affect operating income (Earnings before interest & taxes)
- The earnings drivers of a company
- The level of working capital and fixed assets at a particular sales growth
- The level of equity and debt financing to achieve a certain sales growth and its effects on the company's capital structure

Creating a corporate financial model requires the analysis of the economy, industry, business, and historical corporate financial statements. Only after analyzing these elements can we build a pro-forma model that translates the operating and financing activities of a firm into a simple spreadsheet, which will allow us to estimate the value of a company. To carry out this process, we will use a real world company such as McDonalds Corporation.

This systematic guide will give you the tools and ability to understanding how to predict the economic and financial performance of McDonalds. We will use the historical financial statements to calculate financials ratios from the balance sheet and income statements to obtain parameters to forecast how the future financial performance of the firm.

To increase your learning aid, I have created an excel spreadsheet for McDonalds using historical financial statements from 2004-2013. In addition, there is a PowerPoint explaining all of the parameters, procedures, and calculations to speed your learning effectiveness. It will also prove useful to download McDonald's 2012 annual report to understand the intuition behind the accounting numbers as we go through the analysis from economic, industry, business, historical, & projected financial statements and valuation analysis.

Economic & Industry Analysis

Before we can understand the drivers of McDonald's operations, we have to analyze the economy and industry, to assess whether or not McDonalds's strategy, product, & market focus is aligned with the current environment. According to Standard & Poor's Restaurant Industry Survey as of December 2012, "restaurant sales are driven by consumer spending." The main factor driving how much a consumer spends is based on their employment prospects. Thisis quantitatively captured through the unemployment rate and personal disposable income, which is the amount of income a consumer has available to spend after netting, taxes.

Unemployment Rate

The U.S unemployment rate as of May 2013 is 7.6%, far below the level at 10.2% in 2009. Unemployment rate is important to consider in our analysis because it can determine a restaurant strategy in terms of product mix and what targets market it chooses to focus. At high unemployment rates, restaurant operators will focus their product mix on value offerings. For instance, in the second half of 2012, McDonald has experienced softer performance in the U.S and adjusted its product mix on everyday value offerings while providing menu variety. Restaurant operators in the fast casual industry such as Panera Bread and Chipotle will not try to compete on price with McDonalds (Limited-Restaurant Industry) even if unemployment rates are excessively high. The customers at Panera Bread and Chipotle are willing to a price premium (pricing power) for higher quality food items. There are willing to allocate more of their disposable income to obtain these items.

Real disposable Income (Personal Income – Personal Income Tax Payments)

As stated in the S&P 500 RestaurantIndustrySurvey, U.S consumers' real disposable income rose 3.7% in the 1st quarter of 2012 and 3% in the second quarter of 2012 and grew only 0.8% in the third quarter. S&P Capital IQ is expecting 2013 real disposable personal income to grow by 3.4% in 2013. With such low growth in real disposable income, some restaurant companies are expanding to the emerging markets such as China and Indiato generate more earnings and cash flows due to their rising middle class and increased purchasing power. According to the industry, survey "the annual per capita disposable income of the urban population increased with a compound annual growth rate (CAGR) of 11.8% between 2000 and 2010, according to the National Bureau of Statistics of China." In 2011, the per capita disposable income of urban residents grew by 8.4%

Analyzing the industry-Competitive Rivalry
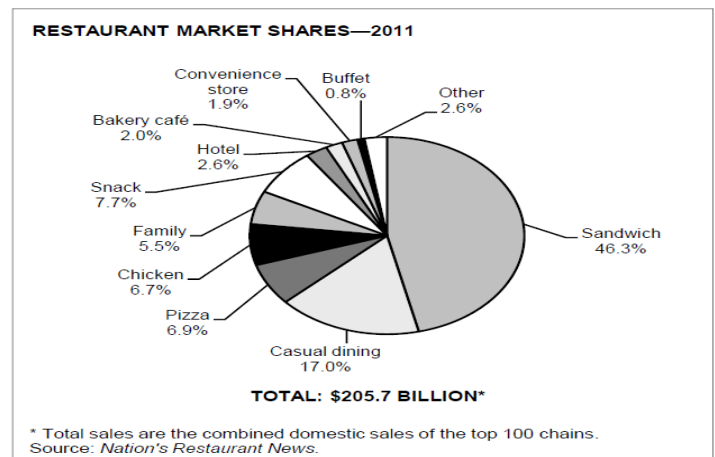
Operating in a highly fragmented industry, McDonalds faces competition at every corner. According to the National Restaurant News, the restaurant market consist of eight segments with their respective market segments: Buffet -0.8% convenience store -1.9%, Bakery Café- 2.0%, Hotel- 2.6% , Snack-7.7%, family – 5.5%, chicken-6.7%, pizza-6.9%, casual dining-17.0%, sandwich- 46.3% and other-2.6%. With a market share of 46.3%, the sandwich segment consist of hamburgers, chicken, fish sandwiches, tacos and burritos. As indicated in the figure to left, the total combined domestic sales of the top 100 chains as of 2011 are $205.7 billion dollars. Companies operating in the restaurant industry compete based on price, convenience, service, menu variety, and product quality.

Price

The price a restaurant operator charges depends on its market segment. According to EuroMonitor International, a leading source of market data with respect to the global restaurant industry, the restaurant categories consist of quick-service eating establishments, casual dining full-service restaurants, 100% home delivery/takeaway providers, street stalls or kiosks, specialist coffee shops, juice/smoothie bars and self-service cafeterias. Pricing within the quick-service industry is highly competitive due to the minimal start-up cost. To increase traffic and guest counts, Companies such as McDonalds's, Jack-In-Box and Wendy's offer value menus to appeal to the value conscious consumer. An economy of scale in purchasing supplies and being located high traffic areas allows these three restaurant chains to remain price competitive.

Convenience

A restaurant company can make itself more convenient by being in the right location, expanding to over geographical markets, and extending its operating hours. For instance, most restaurants seek to situate near office complexes, hotel & entertainment centers, and retail centers. Comparable sales, which are a key industry metric, are driven by changes in guest counts and average check. Highly populated areas increase the chance that guest counts and sales will rise .Furthermore, a restaurant operator can make its self-more convenient by expanding into various geographical segments. For instance, in 2013 McDonald's is planning to expand its market presence in Europe and APEMA (Asia/Pacific, Middle East, and Africa).

Service

Service in financial terms with respect to the quick-service restaurant industry is how fast they can turn their inventory into cash. Because the quick-service restaurant industry is highly volume driven, transaction speed is very important. Higher transaction speed means lower wait times, which helps drive volume and sales. We can measure the efficiency of a restaurant by using the inventory turnover ratio and days in inventory ratio.

Menu variety

Menu variety can be a source of innovation that allows a restaurant company to generate sales through more menu items. In addition, new menu items can raise traffic without margin pressure or price

discounting. Average check size for quick or limited service restaurants are always less than $7. To avoid margin pressure and the increase in commodity & labor cost occurring in quick-service industry, restaurant companies seek to differentiate themselves by offering premium products that generate more margins. We can observe the success of a McDonald's menu variety by assessing its gross and operating margins.

Product Quality –

Higher quality meals and food items can increase the average check size for a restaurant operator and contribute to margin expansion if a restaurant is able to control operating expenses. Higher product quality can also be analyzed through observing a company's gross and operating margins.

Labor and Commodity cost

Labor and commodity cost remains one of the largest expenses for a restaurant operators and can have a significant effect on the restaurant margins if the firms operating in the industry are not positioned whether through pricing, product mix or location. According to the Standard & Poor's Restaurant Industry Survey as of December 2012, "higher labor cost continued to impact the retail industry in 2011, due to an increase in hourly compensation payments caused by increase in the federal wage. As a result, many restaurant operators are resulting to price increases to compensate." As reported by National Restaurant Association 2010 Restaurant Industry Operations Report, 29.4% of the Limited Service Restaurant industry dollar was allocated towards wages and benefits and 31.9% was allocated towards the cost of food and beverages. Restaurant operators seek to mitigate the vicissitudes of raw material prices by negotiating with suppliers to lock in at a certain price in the future, also known as hedging. Firms like McDonald's use their there market size and financial capital to obtain raw materials at competitive prices further increasing their gross, operating, and net margin. Below are the allocation of the industry dollar for restaurant industry provided by the National Restaurant Association's for 2010 Industry Operations Report.61.3% of the industry dollar for limited service restaurants was allocated towards cost of food & beverages and wages & Benefits. Labor and commodity cost alongside a firm product mix and sales volume are key components affecting a restaurant operator sales.

THE RESTAURANT INDUSTRY DOLLAR
(As percent of total)

| | FULL-SERVICE RESTAURANTS | | | LIMITED-SERVICE RESTAURANTS |
| | ---- AVERAGE CHECK PER PERSON ---- | | | |
	UNDER $15	$15-$24.99	$25 AND OVER	
Cost of food and beverages	32.2	31.8	31.9	31.9
Wages & benefits	33.7	33.2	33.7	29.4
Restaurant occupancy costs	4.9	5.1	6.1	7.7
Other	26.2	26.4	26.5	25.1
Income before income tax	3.0	3.5	1.8	5.9

Source: National Restaurant Association's *2010 Restaurant Industry Operations Report.*

Industry Growth

The industry growth of a firm's industry can be a key driver for its financial performance and its intrinsic value (the actual value of company determined by estimating the future cash flows and discounting it at the appropriate rate of return). It is stated by Hoover's/ D& B subsidiary First Research, the output of US Food Services and drinking places, an indicator for fast food and quick service restaurants, is forecasted

to grow at annual rate of 4 percent between 2013 and 2017. On the other hand, under the industry profile section of the S&P 500 Industry Survey, S&P Capital IQ (S&P) expects revenues to rise about 2%-3 in 2013. In our valuation model, we will adhere to a long-term free cash flow growth rate i/a/o 3.0%

- ## Fast-Food and Quick-Service Restaurants Growth Flat
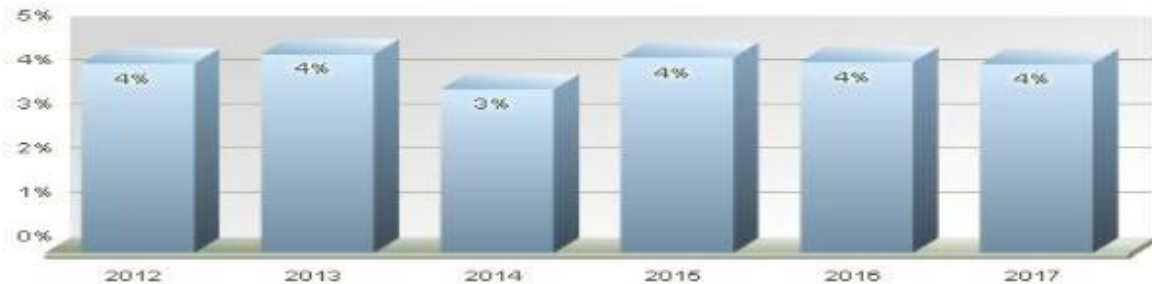
Analyzing the Business

Company Overview

McDonald's corporation operates and franchises restaurants globally. At the end of 2012, 27,882 restaurants were franchised or licensed and the company operated 6,598 restaurants. McDonald's has geographical presence in markets such as Europe, Asia/Pacific, Middle East and Africa ("APMEA"). The U.S., Europe and APMEA account for 32%, 39% and 23% of total revenues, respectively. Sales generated by McDonald's corporation consist of company-operated restaurants and fees from restaurants operated by franchisees, rent and royalties from conventional franchised restaurants based on a percent of sales along with minimum rent payments and initial fees. Furthermore, McDonald's receives a royalty based on a percent of sales, which include initial fees from affiliates and developmental licensees. McDonald's core strategy as of 2012 is optimizing their menu, modernizing the customer experience and the accessibility of its brand all over the world. Some of McDonald's main products and services are Big Mac, Quarter Pounder with Cheese, Filet-O-Fish, Snack Wraps, Egg Mcmuffin with egg and Mccafe beverages. McDonald's customer profile reaches all groups ranging from the budget conscious and premium customers. To ensure reliable and consistent supplies to meet inventory demand, McDonalds relies upon numerous independent suppliers.

Operations Overview

The success of McDonald's operation its efficient supply chain management system that allow them to leverage scale to obtain competitive prices which benefits their margins all while staying price competitive in market. To mitigate the risk high commodity cost, McDonald's enter into forward contract to stabilize food cost. McDonald's innovative distribution capability enables them to achieve superior inventory turnover alongside with robust profit margins. By having extended hours, an efficient drive-thru service, multiple order points to maximize drive thru capacity alongside the implantation of 1,500 hand-held order takers to improve customer service, McDonald's wide economic moat remains untouched. Below are McDonald's business tactics and future plans.

U.S

- 900 existing restaurants were remodeled with the majority adding drive thru capacity to improve the customer experience and to grow customer traffic.
- 1,500 hand held orders takers have been implemented to improve transaction speed and efficiency.
- Enhancing the dollar menu and developing new products at multiple price points to attract a large array of customers.
- McDonalds seek to reimage (buildings and improvements) 800 locations by 2013 to initiate guest counts.

Europe

- McDonald's has conducted over 750 restaurant reimages to enhance the customer experience
- 2,220 restaurants in Europe have a new point of sales system, which expands McDonald's product offering, and order accuracy.
- Technological investments in the self-order kiosks, side-by-side thru and point of sale has increase McDonald's production and service capabilities.
- McDonald's seeks to open nearly 300 restaurants and reimage approximately 450 restaurants.

APEMA

- Opened over 75 new restaurants in APMEA of which 250 were in china.
- To execute on convenience, McDonald has offered delivery in over 1700 restaurants, which consisted of 550 restaurants in China.
- A product shift towards value items will be a key strategy and growth driver as it seeks to attract the price conscious consumer.
- McDonald's seeks to open approximately 850 restaurants while reimaging about 225 existing restaurants.

Situational Analysis

Strengths	Weaknesses	Opportunities	Threats
• With approximately 34,480 restaurants in 119 countries at the year-end of 2012, McDonalds's remains' one of the most recognizable fast food franchise in the world and dominant player in the fast food restaurant. • Superior supply chain management which allows McDonald's to manage raw materials prices that results in efficiency and robust profit margins. • By employing capital in the point of sale of system, multiple order points self via self-order kiosks, hand held devices and side by side drive-thru, McDonald's has enhanced the customer experience all while growing guest counts and comparable sales. • Innovation in product mix such as Cheddar Bacon Onion premium and Chickens Sandwiches creates new sources of revenue growth and a higher average check for McDonald's Corporation. • S&P forecasts that the quick service restaurant segment will perform relatively well in 2013 with a revenue increase of 3.0% to $1.79 billion.	• Economic challenges in the U.S could pressure margins as consumers have less discretionary income to allocate towards food items. • Highly fragmented and mature, the restaurant industry has many players such as quick-service eating establishments, casual dining full-service restaurants, self-service cafeterias, 100% home delivery/ takeover providers which could trigger price wars, thus lowering margins.	• Due to rising working population, increased purchasing power and changing lifestyles of China citizens, McDonald's is seeking to open over 300 restaurants in China by the end of 2013. • According to NRN article, the Indian region could contribute $800 million to McDonald's operations by 2015.	• Unexpected vicissitudes in commodity prices could stifle McDonald's profit margins as raw materials increase . • The ever-growing obesity problems in the U.S could change consumer perceptions about McDonald's. • McDonald's operating income could be affected if the government imposes policies that raises the minimum wage from its current standing of $7.25.

Analyzing the Historical Corporate Financial Statement

With an understanding of the economic landscape, industry drivers, and the business overview, we will have a better understanding of the financial model. Before proceeding to forecast McDonald's financial statements, it will prove helpful to go over some financial statement terms.

Current Assets: Current assets are the assets expected to convert into cash with one year or less to pay for short term obligations, to sell to customers such as inventory. Currents assets generally exhibit a high degree of liquidity and can converted in to cash with little difference between the bid and offering price. Currents assets for a typical nonfinancial company consist of the following: Cash, short-term Investments or marketable securities, accounts receivable, Inventories, prepaid expenses, and other current assets.

Cash and Cash equivalents: cash consist of coins, petty cash, currency, checking account balances, checks, money orders, bank checks, and certified checks held in a bank account. Furthermore, cash equivalents assets are liquid short-term investments such as U.S. government Treasury bills, bank certificates of deposit, bankers' acceptances, corporate commercial paper, and other money market instruments. Although having a lot cash on the balance sheet is favorable from a liquidity standpoint, it earns very low returns. Companies invest cash in operating assets such as inventory, property, plant,

and equipment because it can generate a return by producing cash flow. The operating assets of a company, which excludes cash, are those assets involved in selling goods and services. We will keep the cash balance constant from 2012 to 2017.

Accounts receivable: Accounts receivable is simply the money owed to the company by customers. An accounts receivable is created when a customer pays with credit, such as a McDonald's patron walking in having little cash and decides to pay with a credit card. To analyze McDonald's ability to collect payments from credit sales we can utilize a formula named Days Sales Outstanding (Accounts Receivable/ Sales *365). The days sales outstanding tells how " well a company is managing the collection of its A/R by measuring the number of days it takes to collect a payment after the sale of a product or service". McDonald's DSO from 2010 to 2012 is 18, meaning on average its McDonald's 18 days to collect cash from a credit sale. Various factors can affect a company ability to collect receivables such as worsening customer credit, change in product mix, and an ineffective credit policy. Although accounts receivable can be forecasted by using the DSO formula, we will predict A/R for the financial statements by taking the historical average of (Accounts receivable /Sales) from 12/31/2004 to 12/31/2012 and multiplying it by its year's sales. This method is more simplistic and makes economic sense. As McDonald's expands to more countries and build, more restaurants the number customers they serve will grow and payments occurring with a credit card will likely grow. In the valuation spreadsheet in cell D52 enter $C$12*D30.

Efficiency Ratio	12/31/12	12/31/11	12/31/10	12/31/09	12/31/08	12/31/07	12/31/06	12/31/05	12/31/04
Days Sales Outstanding	18	18	18	17	15	17	15	14	14

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014- 2017
Accounts Receivables (A/R)	2013 Sales * Average 2012-2004 (Receivables/Sales)	$C$12*D30	Drag 2013 Formula from E51 to H51

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	2004
	Receivables/ Sales	4.99%	4.94%	4.90%	4.66%	4.14%	4.62%	4.19%	3.89%	3.91%
Historical Balance Sheet	Accounts Receivables	1,375.30	1,334.70	1,179.10	1,060.40	975.00	1,053.80	904.20	795.90	745.50
Historical Income Statement	Sales	27,567.00	27,006.00	24,074.60	22,744.70	23,522.40	22,786.60	21,586.40	20,460.20	19,064.70
	Average Receivables/ Sales	4.47%								

Inventory: Inventory is the unsold finished product valued at cost on the balance sheet. For a restaurant company, its very important inventory is brought into the store and sold quickly. Food unlike durable products (durable products experience technological obsolescence and or substitution) have a limited economic life span and ties up cash. The faster a company can turn its inventory into cash, the more financially flexible they will become. To analyze McDonald's efficiency, we utilize two ratios, days in Inventory and Inventory turnover. Days in Inventory measures the number of days it takes a company to sell its inventory. Inventory turnover "measures the rate at which a company purchases and resells products to customers." Inventory turnover measures a company selling abilities, purchasing practices, manufacturing/ distributing efficiency and merchandising ability. McDonald's Days in Inventory from12/31/2009 to 12/31/2012 was 9.9, 10.0, 9.0, and 2.9 respectively. Furthermore, inventory turnover from 12/31/2009 to 12/31/2012 was 37.3, 36.6, 40.7, and 125.4. In 2012, it took McDonald's approximately three days to sell its inventory (or approximately 125 "inventory turns" per year"). Why

was McDonald so efficient with its inventory practices? This is explained in "Analyzing the Business" under operations overview. By having extended hours, an efficient drive-thru service, multiple order points to maximize drive thru capacity alongside the implementation of 1,500 hand-held order takers to improve customer service, McDonald's is able to turnover its inventory quickly.

Efficiency Ratio	12/31/12	12/31/11	12/31/10	12/31/09	12/31/08	12/31/07	12/31/06	12/31/05	12/31/04
Days In Inventory (Inventories/ Cost of Goods Sold)* 365	2.9	9.0	10.0	9.8	9.3	10.7	13.3	13.6	14.7
Inventory Turnover (Cost of Goods Sold/ Inventory)	125.4	40.7	36.6	37.3	39.3	34.1	27.5	26.9	24.8

Although McDonald's levels can be forecasted using the days in inventory formula, we simply estimate McDonald's inventory levels as a percentage of sales. This is simplistic and makes economic sense. If McDonald's wants to achieve its business plan by growing its market share it has to build more restaurants and with more restaurants comes more inventory. In the valuation spreadsheet in cell D53 enter $C$13*D30.

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014- 2017
Inventories	2013 Sales * Average 2012-2004 (Inventories/ Sales)	$C$13*D30	Drag 2013 Formula from E53 to H53

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	2004
	Receivables/ Sales	4.99%	4.94%	4.90%	4.66%	4.14%	4.62%	4.19%	3.89%	3.91%
Historical Balance Sheet	Accounts Receivables	1,375.30	1,334.70	1,179.10	1,060.40	975.00	1,053.80	904.20	795.90	745.50
Historical Income Statement	Sales	27,567.00	27,006.00	24,074.60	22,744.70	23,522.40	22,786.60	21,586.40	20,460.20	19,064.70
	Average Receivables/ Sales	4.47%								

Prepaid expenses and Other Assets: Prepaid expenses are the payments of unreceived benefits. A prime example is an insurance policy. To protect their assets from theft or unexpected weather conditions, a company will buy property insurance to cover any material damages if these events were to occur. In addition, items falling under the category of other assets are long-term prepaid expenses, prepaid pension cost, non-current receivables, assets in special funds, deferred income taxes, properties held for sale, and restricted cash or securities. For financial modeling, we will forecast these assets as a percentage of sales. To calculate 2013 prepaid expenses and other assets, we use the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014- 2017
Prepaid Expenses and Other Current Assets	2013 Sales * Average 2012-2004 (Prepaid Expenses & Other Current Assets)/ Sales	$C$14*D30	Drag 2013 Formula from E54 to H54

In the valuation spreadsheet in cell D54 enter $C$14*D30.

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	2004
	Other Current Assets/ Sales	3.43%	2.19%	2.38%	1.89%	1.56%	1.85%	2.02%	3.16%	3.07%
Historical Balance Sheet	Prepaid Expenses & Other Current Assets	946.50	591.40	574.10	429.50	367.70	421.50	435.70	646.40	585.00
Historical Income Statement	Sales	27,567.00	27,006.00	24,074.60	22,744.70	23,522.40	22,786.60	21,586.40	20,460.20	19,064.70
	Average Prepaid Expenses & Other Current Assets/ Sales	2.40%								

Noncurrent assets or Long-term assets

Gross plant and Equipment- To conduct their day-to-day operations, McDonald's will need to purchase buildings, furniture, equipment, and machines. Gross property, plant, and equipment also include

additions and improvements to land and buildings. Furthermore, building improvements such as reimaging the restaurants are debited to gross plant and equipment. Gross property and plant makes up a significant portion of McDonald's balance sheet. If McDonald's wants to grow their sales and broaden the exposure, they will need buy to more plant and equipment or make improvements and additions to their existing buildings (reimaging or adding a multiple drive thru). To calculate the 2013 Gross Plant and Equipment we using the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014- 2017
Property, Plant and Equipment, Gross	2013 Net Property Plant and Equipment + 2013 Accumulated Depreciation	D58 + D59	Drag 2013 Formula from E57 to H57

In the spreadsheet, named valuation enter D58+D59 in cell D57.

Accumulated depreciation- Buildings, equipment, and machines experience wear and tear throughout their useful lives. Depreciation expense is the cost allocation method to account for the value of aging assets. Accumulated depreciation is "the sum of all the depreciation charges taken since the asset was first acquired." To calculate the 2013 accumulated depreciation, we use the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Accumulated Depreciation	2012 Accumulated Depreciation + 2013 Depreciation Expense	C58+D34	Drag 2013 Formula from E58 to H58

In the spreadsheet,named valuation enter C58+D34 into D58.

Net Property, Plant, and Equipment (Gross Plant and Equipment – Accumulated depreciation) Net property, plant and equipment is the sum of the gross plant and equipment minus accumulated depreciation. Property, plant, equipment, and NPP& E make large percentage (69.73%) ofMcDonald's assets. The large amount of net property, plant, and equipment can be explained in the operations overview under "Analyzing the business." On page 24 of McDonald's annual report, it is stated that they spent approximately $3 billion in capital expenditures to reimage existing restaurants and open new restaurants. The investment helped remodeled over 900 existing restaurants by adding drive-thru capacity to capture additional guest counts thus furthering sales. Because there is a positive relationship between the amount investments McDonald's makes in reimaging (such as adding a multiple drive thru) and opening new stores to sales, we will predict net fixed assets as a percentage of sales. To calculate 2013 net fixed assets we use the following formula:

Calculation of Net fixed Assets	Mcdonald 2012 Annual Report		Worldscope Full Company Report 2013	
Land	5613		Property, Plant & Equipment	38490
Buildings and Improvements on owned land	14089		Accumulated Depreciation	13814
Buildings and improvements on leased land	12971		Net Property and Equipment	24677
Equipment, signs and seating	5241			
Other	577			
Gross Plant & Equipment	38490			
Accumulated depreciation and amoritzation	13814			
Net Property, Plant & Equipment	24677			

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Property, Plant and Equipment, Net (NPP&E)	2013 Sales *Average 2012-2010 (Property, Plant and Equipment , Net / Sales)	D30 * $C$15	Drag 2013 Formula from E59 to H59

In spreadsheet named valuation enter D30*$C$15.

Parameters	2012	2011		2010	2009	2008	2007	2006	2005	2004
Property, Plant, Equipment, Net/ Sales	89.52%	84.55%		91.63%	94.67%	86.11%	92.09%	96.57%	97.30%	108.59%
Property, Plant, Equipment, Net	24,677.20	22,834.50		22,060.60	21,531.50	20,254.50	20,984.70	20,845.70	19,908.00	20,703.10
Sales	27,567.00	27,006.00		24,074.60	22,744.70	23,522.40	22,786.60	21,586.40	20,460.20	19,064.70
Current NPPE/Sales		89.52% Calculation ⟶	$24,677.20/$27,567.00							

Other Assets- Investments in Unconsolidated Subsidiaries, Goodwill,

Deconstrucing Other Assets	Mcdonalds 2012 Annual Report		Worldscope Full Company Report 2012	
Other Assets			Other Assets	4330
Investments in and advances to affiliates	1381		Goodwill	2804
Goodwill	2804		Misc ?	1526 = 4330-2804
Miscellaneous	1603		Other Investments	76
Total Other Assets	5787		Total Misc	1602 =1526+76
			Investments in and advances to affiliates	1381
			Total Other Assets	5786 =2804+1603+1381

In the Figure above, I have deconstructed other assets to bring more light on the accounting of other assets. According to Investopedia, an unconsolidated subsidiary is "a company that is owned by a parent company, but whose individual financial statements are not included in the consolidated or combined financial statements of the parent company to which it belongs." On page 21 of McDonald's annual report it states that it actively participates but do not control its unconsolidated affiliates or

partnerships. Some of these affiliates represent the nearly 3300 restaurants that McDonald's have in Japan. The company receives a royalty based on a percent of sales and records its share of net results in equity in earnings of unconsolidated affiliates.

Furthermore, an in-depth definition of goodwill is provided on page 34 of McDonald's annual report

GOODWILL

Goodwill represents the excess of cost over the net tangible assets and identifiable intangible assets of acquired restaurant businesses. The Company's goodwill primarily results from purchases of McDonald's restaurants from franchisees and ownership increases in subsidiaries or affiliates, and it is generally assigned to the reporting unit expected to benefit from the synergies of the combination. If a Company-operated restaurant is sold within 24 months of acquisition, the goodwill associated with the acquisition is written off in its entirety. If a restaurant is sold beyond 24 months from the acquisition, the amount of goodwill written off is based on the relative fair value of the business sold compared to the reporting unit (defined as each individual country).

To forecast 2013 other assets, we use the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Other Assets	2012 Other Assets * (1+Other Assets Growth)	C63 * (1+$C16$)	Drag 2013 Formula from E63 to H63

In the spreadsheet named valuation enter C63*(1+$C$16) into D58.

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	2004
Historical Balance Sheet	Other Assets	4,330.80	3,517.90	3,545.60	3,370.90	2,871.90	3,102.20	2,985.50	2,707.60	2,685.00
Historical Balance Sheet	Other Investments	75.90	201.20	74.80	152.30	177.80	63.70	40.60	83.30	101.60
Historical Balance Sheet	Investments in Unconsol Subsidiaries	1,380.50	1,427.00	1,335.30	1,212.70	1,222.30	1,156.40	1,036.20	1,035.40	1,109.90
	Other Assets Annual Growth	5.07%	calculation ⟶ ((4,330.80+75.90+1,380.5)/(2,685,00+101.60+1,109.90))^(1/8)-1							

Liabilities and Owner Equity

Accounts Payable or Trade Accounts Payable-

Accounts payable are the unpaid bills to suppliers that McDonald incurred to purchase supplies such as hamburgers, buns, and other food items for the production of goods and services. We can assess McDonald's efficiency of paying its suppliers by the utilizing the formula days payable outstanding, which "measures the number of days it takes for a company to make payment on its outstanding purchases of goods and services." In 2012, McDonald's days payable outstanding was 27, a significant decrease of 74 in 2011. A day's payable outstanding of 27 in 2012 implies that McDonald's took 27 days on average to pay its suppliers. A higher day's payable outstanding (within reason) is beneficial for the company because it increases their short-term liquidity (cash) to use in the business.

Efficiency Ratio	12/31/12	12/31/11	12/31/10	12/31/09	12/31/08	12/31/07	12/31/06	12/31/05	12/31/04
Days In Account Payable	27	74	86	59	52	53	74	64	71

Although we can predict accounts payable using day's payable outstanding, we will forecast McDonalds's accounts payable based on the level sales it generates in a particular year by using the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Accounts Payable	2013 Sales * Average 2012-2004 (Accounts Payable/ Sales)	$C$19 * D30	Drag 2013 Formula from E67 to H67

In the spreadsheet named valuation enter $C$19*D30 in cell D67.

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	2004
	Accounts Payable/ Sales	4.14%	3.56%	3.92%	2.80%	2.64%	2.74%	3.86%	3.37%	3.75%
Historical Balance Sheet	Accounts Payable	1,141.90	961.30	943.90	636.00	620.40	624.10	834.10	689.40	714.30
Historical Income Statement	Sales	27,567.00	27,006.00	24,074.60	22,744.70	23,522.40	22,786.60	21,586.40	20,460.20	19,064.70
	Average Payable/ Sales	3.42%								

Accrued Expenses-

Accrued expenses are unpaid operating liabilities such as accrued wages, income taxes payable, and interest payable to banks. We will forecast McDonald accrued expenses by using the formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Accrued Expense	2013 Sales * Average 2012-2004 (Accrued Expenses/Sales)	$C$20 * D30	Drag 2013 Formula from E68 to H68

In the spreadsheet named valuation enter $C$20*D30 in cell D68.

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	2004
	Accrued Expense/ Sales	4.99%	5.04%	5.72%	7.27%	6.11%	6.53%	7.04%	5.79%	5.77%
	Accrued Expense	1,374.80	1,361.50	1,376.50	1,653.50	1,437.10	1,486.90	1,518.90	1,184.60	1,100.00
	Sales	27,567.00	27,006.00	24,074.60	22,744.70	23,522.40	22,786.60	21,586.40	20,460.20	19,064.70
	Average Accrued Expenses/ Sales	6.03%								

Short Term Debt & Current Portion
Due LT Debt.

Current portion of long-term is the amount of debt due within one year owed to lenders such as banks and insurance companies, and private debt placements. For predicting McDonald's debts levels and free cash flow, we exclude short-term debt from current liabilities and lump it together with long-term debt. The reason for doing so is perfectly explained by Simon Z. Benninga, Visiting Professor of Finance, Wharton School, and University of Pennsylvania, "Current Liabilities, in our pro forma model, don't contain Short-Term Debt or the Current Portion of Long-Term Debt. This is because these are financial liabilities, not operating liabilities, and as such they are not directly related to Sales." Stephen H. Penman, George O. May Professor at the Graduate School of Business, Columbia University, provides a further explanation on why we separate short term-debt from current liabilities,

> Reformulating balance sheets involves distinguishing assets and liabilities that are used in business operations- where the firm makes its money- from assets and liabilities that are used in financing- to raise cash for operations and temporarily store excess cash from operations. A firm "makes its money" by selling goods and services to customers, the firm is delivering to

customers, so identifying the operating assets requires knowledge of goods and services the firm is delivering to customers."

When calculating the free cash flow generated by McDonald's operations, we only consider the cash flows generated by the operating assets and liabilities. Short-term debt or long-term debt does not generate cash flow for McDonald's operations. To predict McDonald's future debt levels, we will use the Debt/Assets formula as indicated below:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Debt	2013 Total Assets * 2012 Debt/Assets	$C$23 * D64	Drag 2013 Formula from E71 to H71

In the spreadsheet named valuation enter $C$23*D64 in cell D71.

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	200
	Debt/ Assets	38.52%	38.60%	36.66%	35.64%	36.43%	32.20%	29.56%	34.28%	33.58%
Historical Balance Sheet	Debt	13,632.50	12,500.40	11,505.30	10,578.40	10,217.80	9,301.10	8,434.20	10,140.10	9,219.5
Historical Balance Sheet	Assets	35,386.50	32,383.60	31,384.80	29,683.70	28,044.10	28,888.90	28,533.30	29,584.00	27,457.4
	2013 Debt/ Asset	38.52%								

Debt to Assets measures how company assets are financed. For every dollar invested in McDonald's total assets in 2012, 38.52 cents came from debt holders and 61.48 cents came from equity shareholders.

Other Current Liabilities (Income Taxes payable, Accrued Interest, other taxes) -

Income taxes payable are the unpaid taxes that McDonald's owes to the government. Accrued interest is the interest not paid to the creditors of the organizations. Other taxes consist of sales tax, federal income tax, benefits and taxes related to foreign operations. For financial modeling purposes, we will keep this constant throughout the model.

Long Term Debt-

Long-term debt is that portion of the principal long-term that has to be paid off in the next fiscal year. Long-term liabilities include mortgages, loans, and bonds that need to be repaid at some point in the future. As stated earlier we will lump short-term debt and long-term debt into the financial model to distinguish it between the operating liabilities of the company.

Provision for Risks and Charges

Provision for risks and charges are set aside to cover losses or liabilities that are certain or probable, but which the amount or timing cannot be determined at the end of the period. We will classify this under other liabilities in the financial model.

Deferred Taxes

Deferred taxes are the "taxes that will have to be paid to the federal and state governments based on accounting income, but are not due yet. Deferred taxes arise when different methods of accounting are

used for financial statements and for tax purposes." For financial modeling purposes, we will project to 2013 deferred taxes by using the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Deferred Taxes	2012 Deferred Taxes (1+ Sales Growth)	C72*(1+$C2$)	Drag 2013 Formula from E72 to H72

In the spreadsheet named valuation enter D72*(1+$C$2).

Other Liabilities

Other long-term liabilities consist of the value of leases, futureemployeebenefits, deferred taxes and other obligations not requiring interest payments during the next year. For financial modeling purposes, we will project to 2013 other liabilities by using the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Other Liabilities	2012 Other Liabilities (1+ Other Liabilities Growth)	C77*(1+$C29$)	Drag 2013 Formula from E74 to H74

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	2004
	Other Liabilties, annual growth rate									
Historical Balance Sheet	Other Liabilties	1,526.20	1,130.60	1,147.90	966.10	1,020.40	1,342.50	1,074.90	892.30	976.70
	Other Liabilties growth rate since 2004	5.74%	calculation ⟶1,526.20/976.70 ^ (1/8)-1							

In the spreadsheet named valuation enter C77*(1+$C$29) in cell D74.

Owner's Equity of the Balance sheet

Owner's Equity or net worth is the "residual interest in the assets of an entity that remains after deducting its liabilities in a business enterprise, the equity ownership interest." Assets are financed from threesources, liabilities (financing creditors), contributed equity (equity shareholders), and earned equity (retained earnings).

Composition of Owner's Equity	
Contributed Equity	Earned Equity
Common Stock	Retained Earnings
Preferred Stock	
Paid-In-Capital	
Treasury Stock	

Common stock, $.01 par value; authorized – 3.5 billion shares; issued – 1,660.6 million shares	16.6	16.6
Additional paid-in capital	5,778.9	5,487.3
Retained earnings	39,278.0	36,707.5
Accumulated other comprehensive income	796.4	449.7
Common stock in treasury, at cost; 657.9 and 639.2 million shares	(30,576.3)	(28,270.9)
Total shareholders' equity	15,293.6	14,390.2
Total liabilities and shareholders' equity	$35,386.5	$32,989.9

See Notes to consolidated financial statements.

Common stock
Common stock is calculated by multiplying the number of shares of the company stock by the par value of the stock. Par value is the stated or face value, of a security established at the time of issuance. On page 30 of McDonald's Annual report, a detailed description of shareholder's is provided. For our financial model, we group common stock-$16.6, additional paid-in capital-$5,778.9 and accumulated other comprehensive income -$796.4 under common stock for 2012 and throughout the forecast period. This will amount to $6,592.

Preferred Stock

When a company has preferred stock in its capital structure (capital structure is the combination of debt and equity used to finance the firm assets), it must pay periodic dividends to its preferred stakeholders. Since there is no preferred stock in McDonalds's capital structure as of 12/31/2012, we exclude it from the model.

Paid In capital

Paid in capital is the " capital received by a company from the floatation of common stock through an initial public offering, rights issue or add on." In 2012, McDonalds's additional paid-in-capital was approximately $5.78 billion. For our financial model, we make no distinction between common stock and paid-in capital. Add additional-in-paid capital to common stock.

Retained Earnings

Retained earnings are the undistributed accumulated profits generated by a firm since its inception. In 2012, McDonald retained earnings were approximately $39.2 billion. To forecast McDonald's 2013 retained earnings, we sum the 2012 accumulated retained earnings on the historical balance sheet and the year 2013 projected retained earnings.

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Retained Earnings	2012 Accumulated Retained Earnings + 2013 Retained Earnings	C79+ D44	Drag 2013 Formula from E79 to H79

In the spreadsheet, named valuation enter C79 + D44 in cell D79.

Treasury Stock

Treasury stock is the stock that a company issues to shareholders and then repurchases from them. On McDonalds's 2012 Annual report, common stock at treasury was approximately $30.5 billion. In our model, this figure will be inputtedas less: treasury stock. The treasury stock will also be our plug in our model to ensure assets and liabilities & owners' equity are equal. By choosing treasury stock as our plug to close the financial model, we are assuming that the cash generated by McDonald's operation are used to repurchase or buy back stock. The formula to calculate the plug is the following:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Less Treasury stock	- 2013 Total Assets + 2013 (Accounts Payable + Accrued Expenses +Other Current Liabilties +Debt Deferred Taxes + Other Current Liabilties + Common Stock + Retained Earnings)	- D64 + SUM (D67 : D79)	Drag 2013 Formula from E80 to H80

In the spreadsheet named valuation enter –D64+Sum (D67:D69) in cell D80.
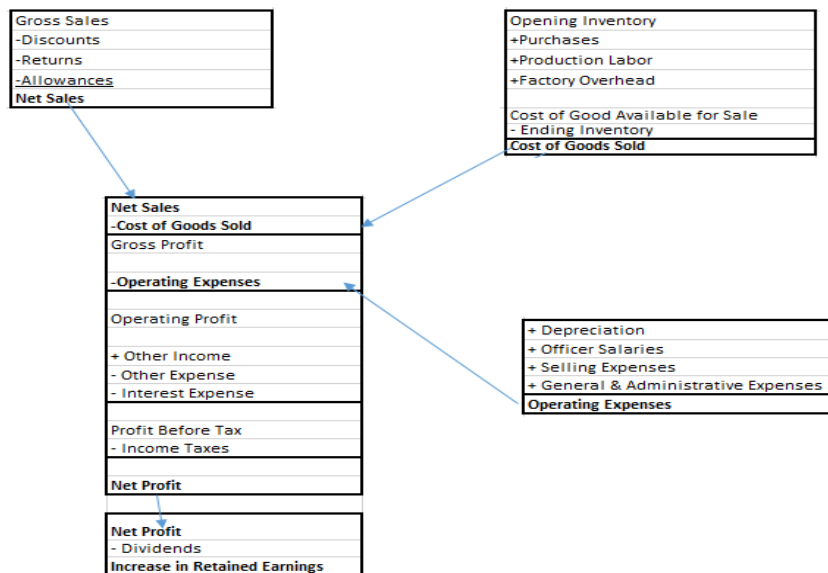
Total Stockholder's Equity

To forecast 2013 stockholder's equity, we use the following formula

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Total Stockholder's Equity	2013 (Common Stock + Retained Earnings - Treasury Stock)	SUM (D77: D79) - D83	Drag 2013 Formula from E81 to H81

In the spreadsheet named valuation enter (D77:D79)-D83 in cell D82.

Before proceeding, it will prove helpful to go over Income Statement terms before forecasting McDonalds's Income Statement.

Components of an Income Statement

Gross Sales
-Discounts
-Returns
-Allowances
Net Sales

Opening Inventory
+Purchases
+Production Labor
+Factory Overhead
Cost of Good Available for Sale
- Ending Inventory
Cost of Goods Sold

Net Sales
-Cost of Goods Sold
Gross Profit
-Operating Expenses
Operating Profit
+ Other Income
- Other Expense
- Interest Expense
Profit Before Tax
- Income Taxes
Net Profit

+ Depreciation
+ Officer Salaries
+ Selling Expenses
+ General & Administrative Expenses
Operating Expenses

Net Profit
- Dividends
Increase in Retained Earnings

Sales

Sales are the total revenue generated by a company products and services. Sales generated by McDonalds's are consisted of the following

- Company operated restaurants and fees
    - Recognized a cash basis
- Fees from franchised restaurants operated by conventional franchises
    - Rent and royalties based on a percent of sales with minimum rent payments and initial fees.
- Developmental licenses and foreign affiliates
    - Royalty based on a percent of sales and may include initial fees

On page 11 of McDonald's annual report, it states that comparable sales, a key industry metric in the restaurant industryare driven by "changes in guest counts and average check, which is affected by changes in pricing and product mix." For simplicity, we lump sales generated by company-operated restaurants and revenues from franchised restaurants. To forecast 2013 sales, we use the following equations:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014-2017
Sales	2012 Sales * (1+ Sales Growth)	C30 *(1+ $C$2)	Drag 2013 Formula from E30 to H30

In the spreadsheet named valuation enter C30 * (1+$C$2) in cell D30.

Spreadsheet Identification	Parameters	2012		2011	2010	2009	2008	2007	2006	2005	2004
Historical Income Statement	Sales	27,567.00		27,006.00	24,074.60	22,744.70	23,522.40	22,786.60	21,586.40	20,460.20	19,064.70
	Sales growth (4 Year- CAGR)	4.05%	Calculation ⟶	(27,567/$23,522.40)^0.25-1							

Cost of Goods Sold

Cost of goods sold is the cost incurred to produce the product. As indicated in the components of an income statement, there are five variables affecting cost of goods sold which are opening (beginning) inventory, purchases, production labor, factory overhead, and ending inventory. The main variables affecting McDonald's cost of goods sold is purchases (commodity cost) and production labor. As indicated in the industry analysis, 29.4% of the Limited Service Restaurant industry dollar was allocated towards wages and benefits and 31.9% was allocated towards the cost of food and beverages. To forecast 2013 Cost of goods sold for McDonald's, we use the following equation:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014-2017
Cost of Goods Sold	2013 Sales *Average 2012-2004 (COGS/Sales)	D30* $C$3	Drag 2013 Formula from E31 to H31

In the spreadsheet named valuation enter D30 * $C$3 in cell D1.

Spreadsheet Identification	Parameters	2012		2011	2010	2009	2008	2007	2006	2005	2004
Historical Income Statement	Cost of Goods Sold	15,262.20		4,752.20	4,023.90	3,961.80	4,378.30	4,273.30	4,099.80	3,957.70	3,651.70
Historical Income Statement	Sales	27,567.00		27,006.00	24,074.60	22,744.70	23,522.40	22,786.60	21,586.40	20,460.20	19,064.70
	Average COGS/Sales	22.44%	Calculation ⟶	Average (D6:L6)							

Gross Margin

Gross Margin is the residual profit earned by the company after subtracting the cost directly related to the production of its product and services. Gross profits measures a company's pricing power (mark-up), their efficiency of manufacturing, and their ability to control production cost such as raw materials and labor. As indicated on the historical financial statement, gross margin from 2004 to 2011 was approximately around 80% and 44.64% in 2012. McDonald's high gross margin can be explained by its efficient supply chain management system that allows them to leverage their scale to obtain competitive prices as indicated in "Analyzing the Business" section under operations overview. To calculate the gross margin, we use the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014-2017
Gross Margin	2013 Sales - 2013 COGS	D30-D31	Drag 2013 Formula from E32 to H32

In the spreadsheet named valuation, enter D30-D31 in cell D32.

Furthermore, we can capture the average check size through the gross margin by adjusting the COGS/Sales parameter. For instance, changing the COGS/Sales parameter to 20% (ceteris paribus) produces an intrinsic value of $110.32, higher than the prior valuation. By reducing the cogs/sales parameter, we are stating that McDonald's is selling its product for a greater amount than what it cost to produce them. McDonald's can achieve this strategy by focusing its product mix on higher check items such as the Cheddar Bacon Onion Premium Sandwiches and cutting labor expense by implementing its self-serve kiosks.

Selling, General, and Administrative Expenses (SG&A)

Selling, general, and administrative expenses are the operating expenses incurred by a business to sell the product. SG&A consist of sales salaries, travel & entertainment, advertising expense, delivery expense, and telephone expense. Administrative expenses consist of officers' salaries, utilities expense, insurance expense, and office expenses. To forecast McDonald's SG&A expense's, we use the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 -2017
Selling, General, and Adminstrative Expenses (SG&A)	2013 Sales * Average 2012-Average 2004(SGA/Sales)	D30 * $C$4	Drag 2013 Formula from E33 to H33

In the spreadsheet named valuation, enter D30*$C$4 in cell D33.

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	2004
	SG&A/Sales	8.85%	46.59%	47.72%	48.41%	49.54%	51.61%	53.69%	35.59%	35.19%
Historical Income Statement	Selling, General, and Administrative Expenses	2,439.00	12,582.80	11,489.30	11,011.50	11,652.60	11,761.00	11,590.30	7,281.70	6,709.50
Historical Income Statement	Sales	27,567.00	27,006.00	24,074.60	22,744.70	23,522.40	22,786.60	21,586.40	20,460.20	19,064.70
	Average SG&A/Sales	**41.91%**								

Depreciation and Amortization Expense

Depreciation expense is the cost allocation method of accounting for the wear, tear, and obsolescence of fixed assets such as a piece of equipment or a building. It is capitalized on the balance sheet at the time of the purchase and gradually expensed on the income statement over its useful economic life. To forecast McDonald's 2013 depreciation expense, we use the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 -2017
Depreciation and Amortization (D&A) Expense	Average 2012-2013 (Property, Plant , Equipment-Gross)* Depreciation /Fixed Assets	Average (C:57:D57) * $C$5	Drag 2013 Formula from E34 to H34

In the spreadsheet named valuation enter Average (C57:D57)*$C$5 in cell D34.

Spreadsheet Identification	Parameters	2012		2011	2010	2009	2008	2007	2006	2005	2004
	Depreciation/Gross fixed assets	3.87%		3.96%	3.70%	3.64%	3.88%	3.77%	3.93%	4.18%	3.94%
Historical Income Statement	Depreciation Expense	1,488.50		1,415.00	1,276.20	1,216.20	1,207.80	1,214.10	1,249.90	1,249.50	1,201.00
Historical Balance Sheet	Gross Fixed Assets	38,491.10		35,737.60	34,482.40	33,440.50	31,152.40	32,203.70	31,810.20	29,897.20	30,507.80
	2013 Depreciation/ Gross fixed assets	4.01% Calculation ⟶		D17/Average (D18:E18)							

Operating Income before Depreciation (EBIT)

Operating margin or earnings before interest and taxes is a measure operating performance and is calculated by taking the gross margin and subtracting the operating expenses, EBIT is the earnings generated by core operations. It encompasses product cost and operating expenses. As indicated in the industry and business analysis, EBIT is affected by food & beverage cost, product mix, sales volume, and labor cost. To calculate the operating EBIT for 2013, we use the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 -2017
Operating Income	2013 Gross Margin -2013 SG&A -2013 D&A	D32-D33-D34	Drag 2013 Formula from E35 to H35

Interest Expense on debt

Interest expense is the expensed that is incurred for borrowing money via loans, debt issuances or certain other liabilities. We forecast 2013 interest expense by using the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 -2017
Interest Expense	Average 2012-2013 (Debt) * Interest Rate	Average (C:71:D71) * $C$6	Drag 2013 Formula from E37 to H37

In the spreadsheet named valuation enter Average (C71:D71)*$C$6 in cell D37.

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	2004
	Interest rate	4.13%	4.27%	4.21%	4.69%	6.11%	5.30%	4.70%	4.17%	4.34%
Historical Income Statement	Interest Expense on Debt	532.50	504.60	464.10	487.00	534.90	417.00	407.40	361.00	362.50
Historical Income Statement	Long Term Debt	13,632.50	12,133.80	11,497.00	10,560.30	10,186.00	7,310.00	8,416.50	8,937.40	8,357.30
	2013 Interest Rate	4.13%								

Non-operating Income (Expense) and Special Items

Non-operating income is the income generated outside the core operations of McDonald's business. On page 22 of McDonald's annual report, 28 million was generated in interest income consisted of short-term cash investments. For financial modeling purposes, we will keep non-operating income constant throughout pro-forma.

Pretax Income or Earnings before Taxes

This is taxable income of McDonald's corporation. To calculate the 2013 pre-tax income we use the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 -2017
Pre-Tax Income	2013 Operating Income- 2013 Nonoperating Income (Expense) and Special Items- 2013 Interest Expense	D35- D37- D38	Drag 2013 Formula from E39 to H49

In the spreadsheet named valuation, enter D35-D37-D38 in cell D39.

Income Taxes –Total

Income taxes are the amount the amount of taxes a corporation is liable to pay to the federal government on that year's income. On Page 15 of McDonald's annual report, under Provision for Income Taxes, it states that effective income tax rates from 2010 to 2012 were 29.3%, 31.3%, and 32.4% respectively. The Company expects the effective income tax rate for the full-year 2013 to be 31% to 33%. The tax rate can also be calculated by using the following formula:
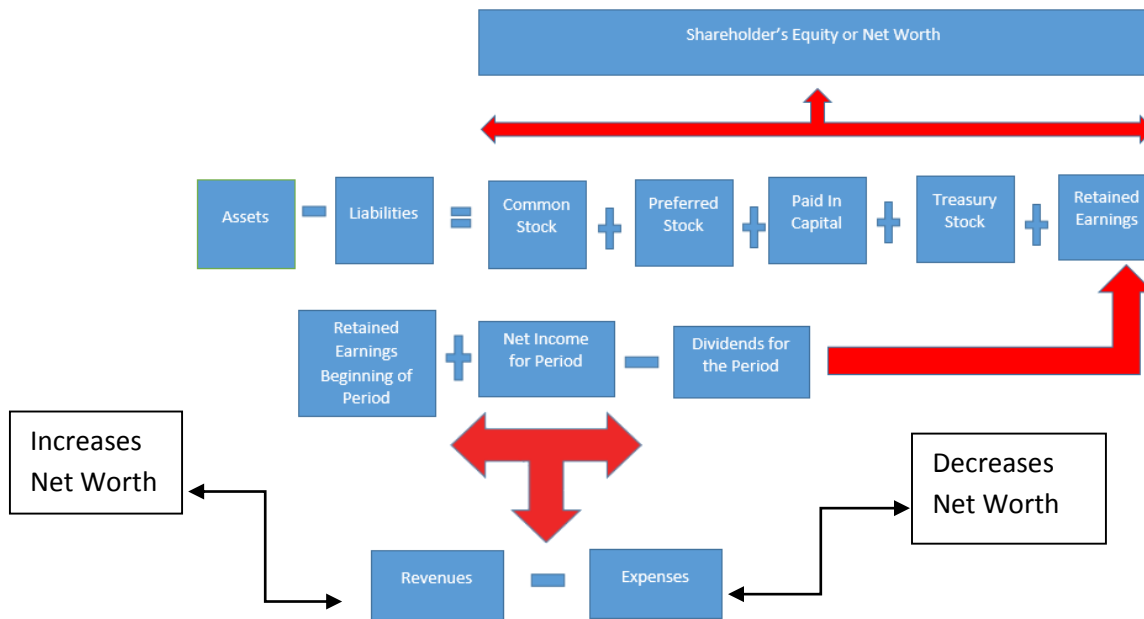
Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 -2017
Income Taxes	2013 Pretax Income * Tax Rate	D39 * $C$7	Drag 2013 Formula from E40 to H40

In the spreadsheet named valuation enter D39*$C$7 in cell D40.

Spreadsheet Identification	Parameters	2012	2011	2010	2009	2008	2007	2006	2005	2004
	Tax Rate	32.94%	32.03%	30.05%	30.64%	30.51%	35.79%	31.63%	30.13%	29.40%
Historical Income Statement	Income Taxes	2,614.20	2,509.10	2,054.00	1,936.00	1,844.80	1,237.10	1,293.40	1,099.40	923.90
Historical Income Statement	Pre Tax income	7,935.50	7,834.20	6,836.30	6,319.20	6,047.30	3,456.50	4,089.60	3,648.80	3,142.40
	2013 Tax Rate	32.94%								

Net Income

Net Income is the "earnings available to equity holders once all of the company's obligations have been satisfied (e.g. suppliers, vendors, service providers, employees, utilities, lessors, lenders, state and local treasuries.)'' Net Income measures the overall profitability of the firm by factoring its cost of goods sold, operating expenses, other income and expenses, interest expenses, and taxes. Why is net income important? To understand the importance of earnings lets assess the depiction below. Earnings are important to shareholders because it "reflects the return to equity holders under the period of consideration… Earnings approximate the increase or decrease in equity before considering distributions to and contributions from equity holders." The net worth or net assets of a company can increase through increased profitability of the business (earned contribution) or increased capital investment by the equity holders (contributed equity). Equity holders have claims on the cash flow that the operating assets produce for the company. If the operating assets increases the earning power of the business over time, equity holders claims grows larger and their net worth is commensurate to the increase.

The formula for 2013 Net Income is the following

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 -2017
Net Income	2013 Pretax Income - 2013 Income Taxes	D39 - D40	Drag 2013 Formula from E42 to H42

In the spreadsheet named valuation, enter D39-D40 in cell D42.

Dividend

Dividends are the portion of free cash flow distributed to shareholders. We forecast 2013 dividends using the following equation:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 -2017
Dividend	2012 Dividend * (1+ Dividend Growth Rate)	C43 * (1+ $C$22)	Drag 2013 Formula from E43 to H43

In the spreadsheet named valuation enter C43*(1+$C$22) in cell D43.

Dividends are the portion of free cash flow paid to a firm's equity holders and/or preferred shareholders. As stated earlier, a company can use its free cash flow to invest in new projects, repurchase shares, pay down debt, increase its liquidity, or pay down debt or pay dividends. To obtain McDonald's dividend history, we follow the preceding steps :

1. Search Yahoo Finance
2. Enter the MCD as the symbol
3. Click Historical Prices
4. Enter Start Date- Nov 13,2012 and End Date- Nov 21, 2013
5. Select the Dividends only option

6. Click get prices
7. At the bottom left of the page click download to spreadsheet.

Dividend Growth Quarterly Calculation

In the spreadsheet named dividend growth calculations, we utilize the following formulas to find the dividend growth rate:

	Cell	Quarterly	
Last 5 Years	B3	(B36/B16)^(1/20)-1	(Nov 29,2012 Dividend/Nov 13,2007 Dividend)^(1/ 5 years * 4 dividend Payouts)-1
Last 10 Years	B4	(B36/B11)^(1/40)-1	(Nov 29,2012 Dividend/Nov 13,2002 Dividend)^(1/ 10 years * 4 dividend Payouts)-1

Dividend Growth Rate Annualized Calculation

	Cell	Annualized	
Last 5 Years	B7	(1+B3)^4-1	(1+ Dividend growth rate Quarterly - Last 5 years)^(1/4)-1
Last 10 Years	B8	(1+B4)^4-1	(1+ Dividend growth rate Quarterly - Last 10 years)^(1/4)-2

Retained Earnings

Retained earnings are the undistributed earnings that will be deployed into the company for future growth (buy operating assets such as inventory, equipment) or can be used to pay down existing debt. The formula for retained earnings is the following:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Retained Earnings	2013 Net Income - 2013 Dividends	D42 - D43	Drag 2013 Formula from E44 to H44

In the spreadsheet named valuation, enter D42-D43 in cell D44.

Historical Balance Sheet 12/31/2012-12/31/2004

	12/31/12	12/31/11	12/31/10	12/31/09	12/31/08	12/31/07	12/31/06	12/31/05	12/31/04
Assets									
Cash & Equivalents	2,478.60	2,360.10	2,505.40	1,820.20	2,063.40	1,981.30	2,136.40	4,260.40	1,379.80
Receivables Net	1,375.30	1,334.70	1,179.10	1,060.40	975.00	1,053.80	904.20	795.90	745.50
Inventories	121.70	116.80	109.90	106.20	111.50	125.30	149.00	147.00	147.50
Prepaid Expenses& Other Current	946.50	591.40	574.10	429.50	367.70	421.50	435.70	646.40	585.00
Total Current Assets	**4,922.10**	**4,403.00**	**4,368.50**	**3,416.30**	**3,517.60**	**3,581.90**	**3,625.30**	**5,849.70**	**2,857.80**
Long Term Receivables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Investments in Unconsol Subsidiaries	1,380.50	1,427.00	1,335.30	1,212.70	1,222.30	1,156.40	1,036.20	1,035.40	1,109.90
Other Investments	75.90	201.20	74.80	152.30	177.80	63.70	40.60	83.30	101.60
Property, Plant & Equipment – Gross	38,491.10	35,737.60	34,482.40	33,440.50	31,152.40	32,203.70	31,810.20	29,897.20	30,507.80
Accumulated Depreciation	13,813.90	12,903.10	12,421.80	11,909.00	10,897.90	11,219.00	10,964.50	9,989.20	9,804.70
Property, Plant & Equipment – Net	24,677.20	22,834.50	22,060.60	21,531.50	20,254.50	20,984.70	20,845.70	19,908.00	20,703.10
Other Assets	4,330.80	3,517.90	3,545.60	3,370.90	2,871.90	3,102.20	2,985.50	2,707.60	2,685.00
Total Assets	**35,386.50**	**32,383.60**	**31,384.80**	**29,683.70**	**28,044.10**	**28,888.90**	**28,533.30**	**29,584.00**	**27,457.40**

Liabilities	12/31/12	12/31/11	12/31/10	12/31/09	12/31/08	12/31/07	12/31/06	12/31/05	12/31/04
Accounts Payable	1,141.90	961.30	943.90	636.00	620.40	624.10	834.10	689.40	714.30
ST Debt & Current Portion Due LT Debt	0.00	366.60	8.30	18.10	31.80	1,991.10	17.70	1,202.70	862.20
Accrued Payroll	1,374.80	1,361.50	1,376.50	1,653.50	1,437.10	1,486.90	1,518.90	1,184.60	1,100.00
Income Taxes Payable	298.70	262.20	111.30	202.40	0.00	0.00	250.90	567.60	331.30
Dividends Payable	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Current Liabilities	587.70	557.60	484.70	478.70	448.60	396.40	386.50	392.00	512.70
Total Current Liabilities	3,403.10	3,509.20	2,924.70	2,988.70	2,537.90	4,498.50	3,008.10	4,036.30	3,520.50
Long Term Debt	13,632.50	12,133.80	11,497.00	10,560.30	10,186.00	7,310.00	8,416.50	8,937.40	8,357.30
Provision For Risks And Charges	0.00	482.00	439.00	397.00	389.70	0.00	0.00	0.00	0.00
Deferred Income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Deferred Taxes	1,531.10	737.80	742.00	737.70	527.50	458.10	575.50	571.90	401.40
Deferred Tax Liability In Untaxed Reserves	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Liabilities	1,526.20	1,130.60	1,147.90	966.10	1,020.40	1,342.50	1,074.90	892.30	976.70
Total Liabilities	20,092.90	17,993.40	16,750.60	15,649.80	14,661.50	13,609.10	13,075.00	14,437.90	13,255.90
Common Equity	15,293.60	14,390.20	14,634.20	14,033.90	13,382.60	15,279.80	15,458.30	15,146.10	14,201.50
Total Liabilities & Shareholders' Equity	35,386.50	32,383.60	31,384.80	29,683.70	28,044.10	28,888.90	28,533.30	29,584.00	27,457.40

Historical Income Statement 12/31/2012-12/31/2004

	12/31/12	12/31/11	12/31/10	12/31/09	12/31/08	12/31/07	12/31/06	12/31/05	12/31/04
Sales	27,567.00	27,006.00	24,074.60	22,744.70	23,522.40	22,786.60	21,586.40	20,460.20	19,064.70
Cost of Goods Sold	15,262.20	4,752.20	4,023.90	3,961.80	4,378.30	4,273.30	4,099.80	3,957.70	3,651.70
Depreciation, Depletion & Amortization	1,488.50	1,415.00	1,276.20	1,216.20	1,207.80	1,214.10	1,249.90	1,249.50	1,201.00
Gross Income	10,816.30	20,838.80	18,774.50	17,566.70	17,936.30	17,299.20	16,236.70	15,253.00	14,212.00
Selling, General & Admin Expenses	2,439.00	12,582.80	11,489.30	11,011.50	11,652.60	11,761.00	11,590.30	7,281.70	6,709.50
Other Operating Expenses	0.00	0.00	-0.20	0.00	0.00	0.00	0.00	3,867.70	3,776.60
Total Operating Expenses	19,189.70	18,750.00	16,789.20	16,189.50	17,238.70	17,248.40	16,940.00	16,356.60	15,338.80
Operating Income	8,377.30	8,256.00	7,285.40	6,555.20	6,283.70	5,538.20	4,646.40	4,103.60	3,725.90
Extraordinary Credit - Pretax	0.00	50.50	35.50	108.20	5.00	88.90	0.00	0.00	0.00
Extraordinary Charge - Pretax	36.50	9.90	54.20	27.50	6.00	1,670.30	134.20	22.80	290.40
Non-Operating Interest Income	28.00	39.00	20.00	19.00	85.00	124.00	152.00	73.00	#N/A
Other Income/Expense - Net	83.30	-10.80	1.70	139.60		-214.20	-172.60	-148.90	65.30
Earnings Bef Interest & Taxes	8,452.10	8,324.80	7,288.40	6,794.50	6,569.90	3,866.60	4,491.60	4,004.90	3,500.80
Interest Expense on Debt	532.50	504.60	464.10	487.00	534.90	417.00	407.40	361.00	362.50
Interest Capitalized	15.90	14.00	12.00	11.70	12.30	6.90	5.40	4.90	4.10
Pretax Income	7,935.50	7,834.20	6,836.30	6,319.20	6,047.30	3,456.50	4,089.60	3,648.80	3,142.40
Income Taxes	2,614.20	2,509.10	2,054.00	1,936.00	1,844.80	1,237.10	1,293.40	1,099.40	923.90
Equity Interest Earnings	143.50	178.00	164.00	167.80	110.70	115.60	76.80	52.80	60.00
Discontinued Operations	0.00	0.00	0.00	0.00	0.00	60.10	671.20	0.00	0.00
Net Income Bef Extraordinary Items & Disc Ops	5,464.80	5,503.10	4,946.30	4,551.00	4,313.20	2,335.00	2,873.00	2,602.20	2,278.50

Forecasted Balance Sheet (12/31/2012-12/31/2017)

ASSETS		12/31/12		12/31/2013		12/31/2014		12/31/2015		12/31/2016		12/31/2017
Cash and Short-Term Investments	$	2,479	$	2,478	$	2,478	$	2,478	$	2,478	$	2,478
Receivables	$	1,375	$	1,283	$	1,335	$	1,389	$	1,445	$	1,504
Inventories - Total	$	122	$	159	$	166	$	173	$	180	$	187
Prepaid Expenses and Other Current Assets	$	947	$	687	$	715	$	744	$	774	$	805
Total Current Assets	$	4,922	$	4,607	$	4,693	$	4,783	$	4,877	$	4,974
Property, Plant, and Equipment, Gross	$	38,491	$	41,086	$	43,829	$	46,727	$	49,788	$	53,021
Depreciation, Depletion, and Amortization (Accumulated)	$	13,814	$	15,410	$	17,112	$	18,928	$	20,864	$	22,925
Property, Plant, and Equipment, Net	$	24,677	$	25,677	$	26,717	$	27,799	$	28,924	$	30,096
Other Assets	$	5,787	$	6,081	$	6,389	$	6,713	$	7,053	$	7,410
TOTAL ASSETS	$	35,387	$	36,364	$	37,799	$	39,294	$	40,854	$	42,480
LIABILITIES												
Accounts Payable	$	1,142	$	981	$	1,021	$	1,062	$	1,105	$	1,150
Accrued Expense	$	1,375	$	1,729	$	1,799	$	1,872	$	1,948	$	2,026
Other Current Liabilities	$	886	$	886	$	886	$	886	$	886	$	886
Debt	$	13,633	$	14,009	$	14,562	$	15,138	$	15,739	$	16,365
Deferred Taxes	$	1,531	$	1,593	$	1,658	$	1,725	$	1,795	$	1,867
Minority Interest	$	-	$	-	$	-	$	-	$	-	$	-
Other Liabilities	$	1,526	$	1,614	$	1,706	$	1,804	$	1,908	$	2,017
EQUITY												
Common Stock	$	6,592	$	6,592	$	6,592	$	6,592	$	6,592	$	6,592
Capital Surplus												
Retained Earnings	$	39,278	$	41,401	$	43,307	$	44,947	$	46,270	$	47,218
Less: Treasury Stock	$	30,576	$	32,441	$	33,731	$	34,731	$	35,388	$	35,642
Total stockholders equity	$	15,294	$	15,553	$	16,168	$	16,808	$	17,474	$	18,168
TOTAL LIABILITIES AND EQUITY	$	35,387	$	36,364	$	37,799	$	39,294	$	40,854	$	42,480

Forecasted Income Statement (12/31/2012-12/31/2017)

	B	C	D	E	F	G	H
29	**PROFIT AND LOSS**	12/31/12	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017
30	Sales	$27,567	$28,683	$29,845	$31,054	$32,312	$33,620
31	Cost of Goods Sold	$15,262	$6,436	$6,697	$6,968	$7,250	$7,544
32	Gross Margin	$12,305	$22,247	$23,148	$24,086	$25,061	$26,076
33	Selling, General, and Administrative Expense	$2,439	$12,022	$12,509	$13,015	$13,542	$14,091
34	Depreciation and Amortization	$1,489	$1,596	$1,703	$1,816	$1,935	$2,062
35	Operating Income	$8,377	$8,630	$8,937	$9,255	$9,583	$9,924
36							
37	Interest Expense	$533	$552	$551	$574	$599	$624
38	Nonoperating Income (Expense) and Special Items	$28	$28	$28	$28	$28	$28
39	Pretax Income	$7,816	$8,050	$8,358	$8,652	$8,957	$9,272
40	Income Taxes - Total	$2,614	$2,652	$2,753	$2,850	$2,951	$3,054
41	Minority Interest	$0	$0	$0	$0	$0	$0
42	Net Income	$5,202	$5,398	$5,604	$5,802	$6,006	$6,217
43	Dividend	$2,897	$3,262	$3,673	$4,135	$4,656	$5,243
44	Retained earnings		$2,137	$1,932	$1,667	$1,350	$974

Forecasting Cash Flow (The Cash flow generated by the business that can be distributed to all the firm's supplier of capital

Free cash flow is the cash available to all security holders (bondholders, equity holders, preferred stockholders, and convertible holders) from the company operations after making the necessary investments in fixed assets to sustain its productive growth in the future, and working capital investments to provide liquidity for the day-to-day operations, and less changes in other assets. We add back after tax interest expense because that is cash flow available to debt holders. Free cash flow can be used to pay down debt, purchase assets for future growth, distributed to shareholders as dividends, or to repurchase stock.

	B	C 12/31/12	D 12/31/2013	E 12/31/2014	F 12/31/2015	G 12/31/2016	H 12/31/2017
85	**FREE CASH FLOW (FCF)**						
86	Profit after tax	$ 5,202	$ 5,867	$ 6,093	$ 6,310	$ 6,535	$ 6,767
87	Add back depreciation	$ -	$ 1,596	$ 1,703	$ 1,816	$ 1,935	$ 2,062
88	Change in net working capital						
89	Increase in operating current assets		$ 314	$ (86)	$ (90)	$ (93)	$ (97)
90	Add increase in operating current liabilities		$ 193	$ 110	$ 114	$ 119	$ 124
91	Subtract capital expenditures		$ (2,595)	$ (2,743)	$ (2,898)	$ (3,061)	$ (3,233)
92	Subtract increase in other assets		$ (293)	$ (308)	$ (324)	$ (340)	$ (358)
93	Add back after-tax interest		$ 370	$ 369	$ 385	$ 401	$ 418
94	**Free Cash Flow to Shareholders**		$ 5,451	$ 5,137	$ 5,314	$ 5,495	$ 5,683

Profit after tax

Profit after tax is the operating profits available to all investors . In our financial model, profit after taxes equates to the net income generated by McDonalds. Net Income represents the wealth decrease or increase of the equity stockholders.

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Profit after tax	2013 Net Income on the Income Statement	D86	Drag 2013 Formula from E86 to H86

Add back depreciation

As stated earlier, depreciation expense is the cost allocation method of accounting for the wear, tear, and obsolescence of fixed assets such as a piece of equipment or a building. It is capitalized on the balance sheet at the time of purchase and gradually expensed on the income statement over its useful economic life. No cash was dispensed to pay for depreciation expense and thus it should be added back into the calculation of free cash flow.

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Add back depreciation	2013 Depreciation Expense on the Income Statement	D87	Drag 2013 Formula from E87 to H87

Changes in Net Working Capital

To understand why we account for the changes in net working capital in free cash flow, it will prove helpful to go over the operating cycle of the business.

Cash Flows in the Operating Cycle
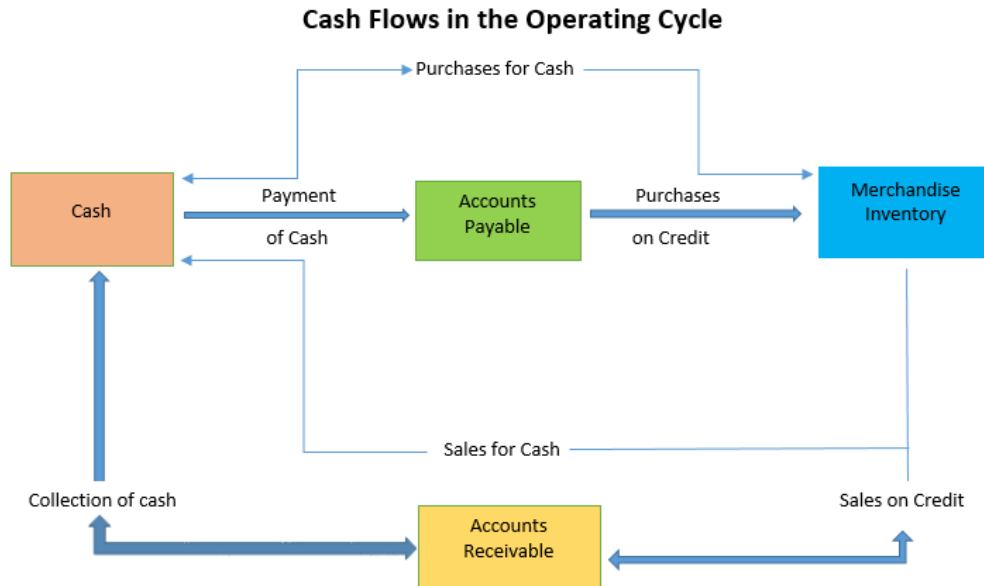
The operating cycle is the " amount of time from commitment of cash for purchases until the end of the collection of cash resulting from sales of good or services. It is the process by which a company converts *cash*in short-term assests and back into cash as part of its ongoing operating activities." A company's operating cycle can be elongated or shortened depending how efficient its operations . When a company buys (increase) inventory its cash dcreases, however if a company sells (decrease)its inventory itcan become cash*or a receivable*. How is this possible? The sale of inventory can generate a receivable (customers paying with credit card) or it can generate a cash payment. Futhermore, when Mcdonald's buys inventory it can choose to pay cash or it can pay its suppliers within n/30, n/60 or n/90 days (increasing liquidty and cash flow). If Mcdonald's does not pay its suppliers immediately, accounts payables increases and the increase is considered extra cash flow that Mcdonald's can use to satisfy past obligations, distrubute to shareholder's or retain in the business for growth. However, if Mcdonald's chooses to pay its suppliers for its goods that bought from past periods, free cash flow will decrease.

In 2012, Mcdonalds cash conversion cycle, which is the average time it takes to convert currents assets into cash was 48 days, a big decrease from 2011 levels. The cash coversion cycle can be calculated using the following formula:

(Accounts Receivable/Sales)*365 + (Inventory/Cost of Goods Sold)*365 + (Accounts Payable/Cost of Goods Sold)*365

For Financial Modeling purposes we define net working capital as operating assets (excluding cash) minus the operating liabilties (excluding the financial liabilties such as current portion of long-term debt and long-term debt). As stated earlier, we only consider the operating assets and operating liabilties that generate cash flow for Mcdonald's corporation. The calcualation of net workings is as follows:

Net Working Capital =	(Accounts Receivable + Inventory + Prepaid Expenses and Other Current Assets) - (Accounts Payable + Accrued Liabilties + Other Current Liabilties)

Besides the interepretation of the operating cycle , working capital can plays a key role in a company's expansion. For instance, in the operations overview on page 8, Mcdonald states that its plans to open approximately 850 new restaurants to reach its goal of 2000 restaurants by the end of 2013. Doing so requires increase in operating working capital and capital investments, which is deducted from the free cash flow available to all capital providers. To calculate the net working capital, we use the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Change in net working capital			
Increase in operating current assets	2012 (Receivables +Inventory+Prepaid Expenses) - 2013 (Receivables +Inventory+Prepaid Expenses)	+Sum(C52:C54) - Sum (D52:D54)	Drag 2013 Formula From E89 to H89
Add increase in operating current liabilities	2012 (Accounts Payable + Accrued Expenses + Other Current Liabilties) - 2013 (Accounts Payable +Other Current Liabilities)	Sum(D67:D69)-Sum(C67:C69)	Drag 2013 Formula From E90 to H90

In the spreadsheet named valuation enter +Sum (C52:C54)-Sum (D52:D54) in cell D89. Furthermore, in cell D90 enter Sum (D67:D69)-Sum (C67:C69).

Subtract capital expenditures

Free cash flow is the cash available to all capital providers after all expenses and investments have been made. To achieve higher sales growth and market share, Mcdonalds will have to spend more money on capital investments such as buildings, land, and equipment. This expendture is needed to maintain the productive capacity of Mcdonald's and will not be available to the owners of the firm.

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Subtract capital expenditures	2012 (Property, Plant, & Gross Equipment) - 2013 (Property, Plant, & Gross Equipment)	C57-D57	Drag 2013 Formula From E91 to H91

In the spreadsheet named valuation, enter C57-D57 in cell D91.

Subtract increase in other assets

Other assets which consist of investments in unconsolidated subsidaries, other investments , goodwill and miscellaneous are subtracted from free cash flow because these assets help generate cash flow for Mcdonald's.

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Subtract increase in other assets	2012 (Other Assets) - 2013 (Other Assets)	-D63 + C63	Drag 2013 Formula From E92 to H92

In the spreadsheet, named valuation enter –D63+C63 in cell D92.

Add back after-tax interest

Free cash flow measures the cash generated by the company without taking into affect how the firm is financed. To neuatrlize the effects of interest payments on the firm profits, we add back after-tax cost interest on debt (after-tax since it interest payments are tax deductible)**.**

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Add back after-tax interest	(1-Tax Rate)*2013 Interest Expense	(1- C$23)* D37	Drag 2013 Formula From E93 to H93

In the spreadsheet named valuation enter (1-$C$23)*D37 in cell D93.

Free Cash Flow to Shareholders

This is the cash flow that Mcdonalds can use to pay down debt, pay for operational expenses, distrubute to shareholders in the form of dividends or sharebuybacks or retain in the business for future growth. The free cash flow will be our numerator in the discounted cash flow analysis.

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula (Year 2013)	Financial Projections from 2014 - 2017
Free Cash Flow to Shareholders	2013 (Net Income + Depreciation - Increase in operating current assets + Increase in operating current liabilities - capex+ after-tax interest)	Sum(D86:D93)	Drag 2013 Formula From E94 to H94

In the spreadsheet named valuation enter Sum (D86:D93) in cell D94.

Creating a Valuation Model Technology

Before proceeding value to value Mcdonald's operations it will prove helpful to go over the intuition of discounted cash flow analysis.

To estimate the intrinsic value (the value of a company), we use a method called the discounted cash flow. The discounted cash flow is a method we use in finance to convert the forecasted free flow generated by the firm to its present valueby discounted it cost of capital (the average return that all capital providers expect to make from holding the stock). To calcluate the intrisic value we use the following formulas:

Vo = PV (Future Cash Flow of the Firm)

$$Vo = \frac{FCF1}{(1+rwacc)^1} + \frac{FCF2}{(1+rwacc)^2} + \frac{FCF3}{(1+rwacc)^3} + \frac{FCF4}{(1+rwacc)^4} + \frac{FCFn}{(1+rwacc)^n} + \frac{Vn}{(1+rwacc)^n}$$

Vn = Terminal Value estimate (assuming a constant long-run growth rate)

$$Vn = \frac{FCF\ n+1}{(rwacc - gFCF)} = \frac{(1 + gFCF)}{(rwacc - gFCF)} \times FCFn$$

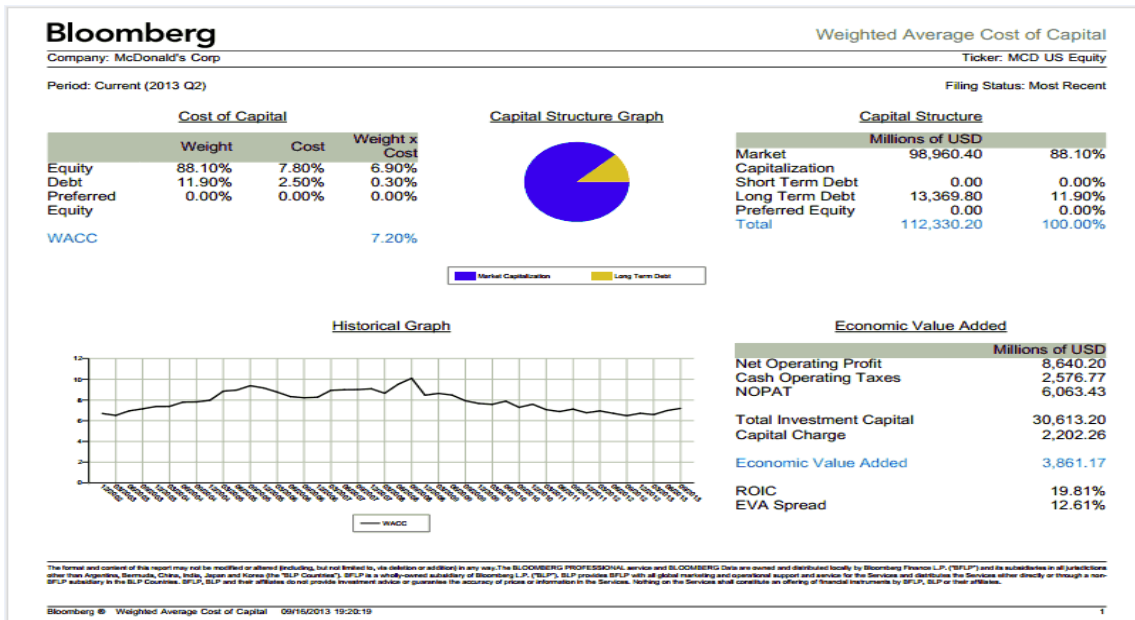**Valuing Mcdonald's Corporation**

			12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017
WACC	7.20%	Obtained From Bloomberg Terminals as of 9/16/2013					
Long-term Free Cash Flow Growth Rate	3.00%	Obtained from Standard & Poor's Industry Surveys-Restaurants as of December 2012					
Year			12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017
FCF			$4,982	$4,649	$4,806	$4,967	$5,133
Terminal Value							$125,889
Total			$4,982	$4,649	$4,806	$4,967	$131,022
Enterprise value	112,756						
Add back initial cash	2,479						
Asset Value	115,235						
Subtract total debt value, Dec 12	16,690						
Implied equity value	98,545						
Number of shares outstanding, Dec 12	1002						
Implied value per share	$98.35						
Market Price Per Share, Sept 2013	$97.92						
MCD under or overvalued	OK						

WACC

The weighted average cost of capital is the average cost of return that the company has to pay to its shareholder for them to be willing forgo (opportunity cost) other similar investments. Viewed from the perspective of the firm, average cost of capital is "the cost associated with raising one more dollar." We compute the WACC using the following formula:

$$WACC = \frac{E}{E+D} (re) + \frac{D}{E+D} (rd)(1-Tc)$$

rd is the cost of debt, re is the cost of equity and E and D is the market value of equity and market value of debt respectively and Tc is the corporate tax rate. To assess McDonald's weighted average cost of capital, I have obtained the WACC from the Bloomberg Terminals.

Bloomberg — Weighted Average Cost of Capital

Company: McDonald's Corp Ticker: MCD US Equity

Period: Current (2013 Q2) Filing Status: Most Recent

Cost of Capital

	Weight	Cost	Weight x Cost
Equity	88.10%	7.80%	6.90%
Debt	11.90%	2.50%	0.30%
Preferred Equity	0.00%	0.00%	0.00%
WACC			**7.20%**

Capital Structure

	Millions of USD	
Market Capitalization	98,960.40	88.10%
Short Term Debt	0.00	0.00%
Long Term Debt	13,369.80	11.90%
Preferred Equity	0.00	0.00%
Total	112,330.20	100.00%

Economic Value Added

	Millions of USD
Net Operating Profit	8,640.20
Cash Operating Taxes	2,576.77
NOPAT	6,063.43
Total Investment Capital	30,613.20
Capital Charge	2,202.26
Economic Value Added	3,861.17
ROIC	19.81%
EVA Spread	12.61%

Bloomberg ® Weighted Average Cost of Capital 09/16/2013 19:20:19 1

Long Term Free Cash growth Rate (gFCF)

For the long-term free cash flow growth rate, we will adhere to S&P 500 estimate of $3% for 2013.

Terminal Value

According to Johnathan Berk, professor at the University of Californa, Berkerly and Peter DeMarzco professor at Stanford University, the terminal or continuation value is the "remaining free cash flow beyond the forecast horizon called the terminal or continuation of the project. This amounts represents the market value (as of the last forecast period) of the free cash flow from the project at all future dates." To calculate the terminal value, we use the following formula:

$$V_n = \text{Terminal Value estimate (assuming a constant long-run growth rate)}$$

$$V_n = \frac{FCF_{n+1}}{(rwacc - gFCF)} = \frac{(1 + gFCF)}{(rwacc - gFCF)} \times FCF_n$$

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula
Terminal Value	FCF-2017* (1+ Long-Term Free Cash Flow Growth Rate)/ (WACC - Long Term Free Cash Growth Rate)	H102* (1+C99)/ C98-C99

Enterprise Value (Firm Value or value of the Business Operations)

The enterprise value is the total price you would have to pay to buy and control 100 % of McDonald's corporation. The enterprise value of a business is the discounted value of the projected free cash flows plus its terminal value. We calculate the enterprise value using the following formula:

$$Vo = PV \text{ (Future Cash Flow of the Firm)}$$

$$Vo = \frac{FCF1}{(1+rwacc)^{\wedge}1} + \frac{FCF2}{(1+rwacc)^{\wedge}2} + \frac{FCF3}{(1+rwacc)^{\wedge}3} + \frac{FCF4}{(1+rwacc)^{\wedge}4} + \frac{FCFn}{(1+rwacc)^{\wedge}n} + \frac{Vn}{(1+rwacc)^{\wedge}n}$$

Furthermore, enterprise value is interpreted as the "net cost of acquiring the firm's equity, taking its cash, paying of all debt, and owning the unlevered business. To understand why this is the cash, we look at enterprise from a different mathematical formula.

> Enterprise Value = Equity Value + Total Debt + Preferred Stock + Non-controlling Interest - Cash and Cash Equivalents
> Enterprise Value = Market Value of Equity + Debt - Cash

From this mathematical formula, we can see that the enterprise value is the "sum of all ownership interests in a company and claims on its assets from both debt and equity holders." To calculate the enterprise value, we use the following formula:

Accounting Item	Formula (Year 2013)	Microsoft Excel Formula
Enterprise Value	(Net Present Value (WACC,Free Cash Flows including its terminal value from 12/31/2012 to 12/31/2013)	NPV (C98,D104:H104)

Midyear Discounting

When discounting the free cash flow accruing to the firm, the NPV formula assumes that the cash flows are received at the end of the year. We adjust the NPV formula to reflect that cash is received throughout the year by using the following formula:

Enterprise Value using Midyear Discounting	=	Vo * (1+ WACC) ^ 0.5
Vo= PV of the future cash flow to the firm		

Valuation Item	Formula (Year 2013)	Microsoft Excel Formula
Enterprise Value using Mid-year discounting	(Net Present Value (WACC,Free Cash Flows including its terminal value from 12/31/2012 to 12/31/2013) * (1+WACC)^0.5	NPV (C98,D104:H104) * (1+WACC) ^ 0.5

Assets Value

To calculate the asset value add the 2012 cash balance i/a/o $2,479 to the enterprise value.

Implied Equity Value

Before equity holders can take over the business, the must pay off all debt holders (bondholders, lenders, preferred stockholders). Equity holders can use the cash and cash equivalents on the balance sheet to pay down the debt of the firm.

To calculate the equity value (the value of equity claim in the business) of McDonalds's Corporation, we manipulate the enterprise value formula by subtracting debt (bondholders, debt holders, lenders, preferred shareholders) and adding the 2012 cash balance (cash that can be used to pay off the debt obligations) indicated on the balance sheet. To calculate the market value of equity, we add the cash balance and subtract the value of debt from the enterprise value.

Enterprise Value = Market Value of Equity + Debt - Cash
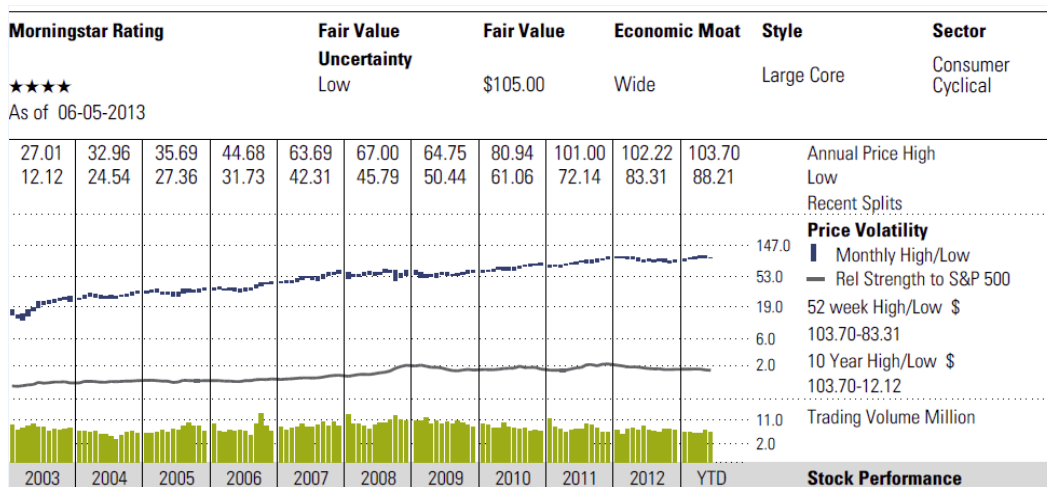**Market Value of Equity = Enterprise Value + Cash - Debt**

	B	C
106	Enterprise value	112,756
107	Add back initial cash	2,479
108	**Asset Value**	115,235
109	Subtract total debt value, Dec 12	16,690
110	Implied equity value	98,545

Total number of shares outstanding

The number of shares outstanding of the registrant's common stock as of January 31, 2013 was 1,002,791,769.

Implied Value per Share (The intrinsic value)

Taking the implied equity value and dividing it by the number of shares outstanding gives an intrisic value of Mcdonalds Corporation of $ 98.35. Below is the stock prices for Mcdonald's from 2003 to Year to Date. According to R.J Hottovy, CFA, Global Director of Consumer Cylcical and Defensive Research at Morningstar, the fair value, which is the output of Morningstar discounted cash-flow valuation is $105.00 – $6.65 below our intrinsic valuation.

Morningstar Rating					Fair Value Uncertainty			Fair Value		Economic Moat		Style	Sector
★★★★					Low			$105.00		Wide		Large Core	Consumer Cyclical
As of 06-05-2013													

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	YTD	
27.01	32.96	35.69	44.68	63.69	67.00	64.75	80.94	101.00	102.22	103.70	Annual Price High
12.12	24.54	27.36	31.73	42.31	45.79	50.44	61.06	72.14	83.31	88.21	Low

Recent Splits

Price Volatility
▮ Monthly High/Low
— Rel Strength to S&P 500

52 week High/Low $
103.70-83.31

10 Year High/Low $
103.70-12.12

Trading Volume Million

Stock Performance

147.0
53.0
19.0
6.0
2.0

11.0
2.0

Sensitivity Analysis

To assess the intrinsic value under different financial drivers, we conduct a sensitivity analysis. Sensitivity analysis can help you assess different ranges of intrinsic value under different economic scenarios. In our model, financial drivers is the weighted average cost of capital (the average return that investors expect to earn on a stock) and long term free cash flow growth rate. To perform a sensitivity analysis, we conduct the following steps:

1. In cell D116, enter an if-then statement IF (C98>C99,C113,"nmf")
2. List the Long Term FCF Growth Rate in line E118, then under financial variable, list following growth rates (1%, 2%, 3%, 4%, 5%) horizontally starting with cell E119 to I119
3. List the WACC in line C123, then starting from D120 to D126; list the growth rates in following order (6.0%, 6.5%, 7.20%, 7.5%, 8.0%, 8.5%, and 9.0%).
4. Highlight D119 (the stock price) all the way to I126 (WACC-7.20%; Long-Term FCF Growth Rate – 3.00%).
5. Click the Data Tab (to the right of formula's tab), go to Data Tools and click on what if analysis.
6. Click on the Data Table selection
7. The Row input will be cell C99- the long-term free cash flow growth rate. The column input button will be C98 -the weighted average cost of capital.
8. Press OK

	C	D	E	F	G	H	I
118				Long-Term FCF Growth Rate			
119		98.35	1.00%	2.00%	3.00%	4.00%	5.00%
120		6.00%	86.65	107.53	142.35	211.98	420.88
121		6.50%	77.65	94.26	120.35	167.32	276.91
122		7.20%	67.50	79.96	98.35	128.23	185.29
123	WACC	7.50%	63.82	74.94	91.01	116.27	161.72
124		8.00%	58.38	67.70	80.75	100.31	132.92
125		8.50%	53.67	61.57	72.34	87.90	112.35
126		9.00%	49.55	56.32	65.34	77.97	96.92

A financial driver does not have to consist of only the WACC or the long- term free cash flow growth rate; it can also consist of sales growth rate.

The effect of sales growth on McDonald's valuation

How can a high sales growth be detrimental to the value of McDonald's? Let assess the intrinsic value of McDonalds Corporation at a sales growth of 15%, (ceteris paribus).

Valuing Mcdonald's Corporation

	B	C	D	E	F	G	H
98	WACC	7.20%	Obtained From Bloomberg Terminals as of 9/16/2013				
99	Long-term Free Cash Flow Growth Rate	3.00%	Obtained from Standard & Poor's Industry Surveys- Restaurants as of December 2012				
100							
101	Year		12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017
102	FCF		$3,026	$2,966	$3,456	$4,022	$4,675
103	Terminal Value						$114,657
104	Total		$3,026	$2,966	$3,456	$4,022	$119,332
105							
106	Enterprise value	98,926					
107	Add back initial cash	2,479					
108	**Asset Value**	101,405					
109	Subtract total debt value, Dec 12	16,690					
110	Implied equity value	84,715					
111							
112	Number of shares outstanding, Dec 12	1002					
113	Implied value per share	$84.55					
114							
115	Market Price Per Share, Sept 2013	$97.92					
116	MCD under or overvalued	OK					

If McDonald's want to achieve a sales growth of 15% percent, it will have to allocate a lot of capital towards working capital and capital expenditures (building restaurants) which will decrease the amount of cash flow available to all capital providers. Instead of intensifying its investment in new restaurants, McDonald has remodeled (less capital intensive) its existing restaurants by adding additional drive-thru capacity to serve more customers. As stated on page 15 of McDonald's annual report its states' "More than 1,600 restaurants worldwide are expected to be reimaged, including locations in affiliated and developmental licensee markets that require *no capital investment* from the Company." Since McDonald's is not responsible for the capital expenditures, more free cash flow will be available to McDonald's shareholders.

Conclusion

The ability to value a company is based on how well we can interpret and transform information regarding a company's industry and business operations into an understandable spreadsheet. The skills required to successfully model any company operations requires a understanding of accounting, finance, economics, business strategy (with respect to the company industry), and a little mathematical intuition.

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