EXECUTIVE SUMMARY

Analyst Name: Shanshan Bradford

Company: Whole Foods Market, Inc. (WFM)

Ticker: WFM

Price on report date: \$41.76 on July 18th, 2017

My recommendation: Hold
My Price Target: \$41.49
My EPS forecast: \$1.44

Highlights

- Whole Foods Markets, Inc. is the leading natural and organic foods supermarket, the first national "Certified Organic" grocer, and uniquely positioned as America's healthiest grocery store.
- Whole Foods Market's largest market segment is in North America.
- The Whole Foods brand is well known for only selling products that meet its self-created, high-quality standards.
- Historically good at creating a good and supportive working environment for its employees.
- The acquisition of Whole Foods Market by Amazon will become the most significant transaction ever for Amazon

Financial Summary

Market capitalization: \$13.392 billion Cash: \$888 million

Current ratio: 1.58
Book value per share: \$10.54

Revenue: \$15.86 billion
Operating cash flow (OCF): \$1.16 billion
Gross profit margin: 34.11%
Net profit margin: 2.54%

 Net profit margin:
 2.54%

 ROE:
 12.1%

 ROA:
 7.66%

Dividend & Yield: 0.72 (1.71%)

EPS: \$1.26 Growth: 5.26% Trailing P/E: 33.25 Forward P/E: 30.48 PEG (5 yrs. expected): 28.57

QUALITATIVE ANALYSIS

Business Description

Whole Foods Market, Inc. engages in the retailing business of natural and organic foods. It operates a chain of natural and organic foods supermarkets in the United States, Canada, and the United Kingdom. Besides groceries, the company's products include beverages, body care, snacks, frozen, pantry staples, supplements, gift baskets, and eco-scaling cleaning products. Whole Foods Market was founded by John Mackey, Renee Lawson Hardy, Craig Weller, and Mark Skiles in 1978 and is headquartered in Austin, TX.

Industry Overview

The retail, wholesale, and distribution industry has undergone a transformation period. With broader retail market growth at the pace of three annual percent, many companies are searching for ways to increase profit while expanding growth and market share.

While retail spending remains robust, companies must also anticipate uncertainty by evaluating potential risks and rewards. It should become part of an overall strategy as business model disruption is part of the new normal. The backbone of any good business model for the retail, wholesale, and distribution industry should address four catalysts that drive disruption: The economy, enabling technologies, platforms, and consumer mindset. In this latest retail, wholesale, and distribution industry analysis, we will focus on the four disruptors that directly affect our industry the most.

SWOT Analysis

Strengths

Healthy and strong financials

Whole Food Market has healthy and robust financials. Its revenue in 2015 and 2016 reached \$15.39 and \$15.72 billion, respectively. The revenue grows by 8.42% and 2.18%.

Strong brand reputation and market share.

Whole Foods Market has a reputational brand image in organic product retails, a strength that attracts customers to its stores. The retail chains have a strong presence in the US, Canada, and the UK, countries with high demand for organic products.

Good quality and standard of products

The company provides high-quality standards for its products. This competitive advantage helps Whole Foods Market stand out from competitors offering cheap but low-quality goods. In addition, Whole Foods' products do not contain artificial preservatives, sweeteners, colors, flavors, or fats.

High demand for organic products

There is a high demand for healthy and organic products, which has kept growing over the past two years because whole Foods' retail chains are strategically present in countries with high demands and economic growth. Usually, these healthy products are available at

higher prices, and customers with higher incomes and willingness to pay premium prices are more attracted to those high-quality products.

Robust supply chain

Whole Foods Market has a robust supply chain across its distribution centers and retail stores. To guarantee high-quality standards, the company ensures products with relatively shorter shelf life and implements a proactive supply chain to help cater to their needs.

Highly motivated workforce

The firm has a highly motivated workforce because of the organizational culture. This is a highly valued advantage because it enables the company to maximize productivity and minimize HR spending for recruitment and training

Weakness

Dependence mainly on the US market

The vast majority of the company's locations are inside the United States. Its business mainly depends on North America, where 97% of the revenue was generated in 2016. This dependency makes Whole Foods Market vulnerable to economic changes in the United States. The expansion to other areas requires it to have local suppliers and an efficient supply chain.

High prices of products

The relatively high prices make Whole Foods Market less attractive to price-conscious or price-sensitive consumers who would instead buy cheaper goods.

Limited network of suppliers

Because of the requirements for high product quality, the firm has a limited network of suppliers that satisfy Whole Foods Market's quality standards.

No subsidies for organic farming

The subsidies are not provided to organic farming, suggesting that other companies can produce the products more cheaply by avoiding high-cost organic farming techniques.

Opportunities

Global expansion of retail operations

The business of Whole Foods Market mainly depends on North America. However, benefitting from the current global market competition, the company has opportunities to expand to developed markets in Europe, the Middle East, and Asia. The firm's target market segments are high-income consumers who might find Whole Foods products attractive. Above all, Whole Foods Market has excellent opportunities to grow its business in the international arena.

Global expansion of the supply chain

Whole Foods Market has the opportunity to expand its supply chain. This opportunity pertains to the need for more organic producers to complement the firm's growth.

Competitive pricing

Lower-priced healthy foods will help Whole Foods target medium-income consumers. The company launched stores named "365," intending to provide similar product lines of food at lower prices. The slight price adjustment would not necessarily contradict the high-quality impression of the firm's products and can potentially make them more competitive.

Electronic retailing

Whole Foods Market can also expand their sale revenues through e-commerce. The company can venture more deeply into e-tailing of their products and service as they already have the procurement part of the supply chain. With the supply chain expansion, it is reasonable to envision they can provide their products to customers' doorsteps in the near future.

Threats

Low-cost competition

Whole Foods Market faces the threat of low-cost competition from firms like Walmart and Kroger, which attract consumers with low-price business models. In addition, the existing supermarkets are increasing their product lines to similar products as Whole Foods Market. In addition, an increasing number of organic and health food retailers are starting to offer lower prices, which could shift consumers away from Whole Foods Market.

Rise of GMO (genetically modified organisms) products

Genetically modified food introduces challenges to food security concerns. This threat could reduce the ability of Whole Foods Market to satisfy its standards in providing organic products with minimal or no GMO ingredients.

Global warming

Global warming presents a threat to Whole Foods Market because climate change has the potential to reduce the yield and quality of food significantly.

Government rules and regulations

Organic food production is often highly prone to any change in government policies favorably or unfavorably.

Economic downturn in American Markets

Because the business of Whole Foods Market mainly depends on the North American market, the company is also subject to the systematic risk of this region and thus prone to an economic downturn. Unfortunately, these threats are difficult to address or overcome.

Porter's Five Competitive Forces

In the above SWOT analysis, several points in Porter's five competitive forces have been described. This section will briefly focus on them within the context of the specific competitive forces. Four out of five competitive forces are strong forces, and only the bargaining power of suppliers presents a moderate force.

Competitive rivalry or competition within the industry

This element of the five-force analysis model deals with the effects of firms on each other. Whole Foods Market experiences the strong force of competitive rivalry. In Whole Foods Market's case, the external factors that contribute to this strong force of competition include a large number of firms, high aggressiveness of firms, and low switching costs.

Whole Foods Market is in the category of grocery and health food business, part of the retail industry. The retail industry is saturated with many firms, and these retail firms aggressively compete based on price, service, quality, and other variables. In the organic and natural food industries, competitive rivalry responds to demands rapidly. More companies enter and expand their presence in the organic and natural food business due to customer inclinations toward fresh and organic products. Mainstream supermarket chains such as Kroger Company and mass merchandisers like Costco Wholesale Corporation, Sam's club, and Wal-Mart Stores are now offering customers natural and organic foods at much more competitive prices.

Another solid competitive force that Whole Foods Market faces is the low switching cost. Consumers can quickly shift from Whole Foods Market to other retailers. Whole Foods Market distinguishes its products from other retailers' by providing higher quality levels to address this part of the challenges inferred from the five forces model.

Bargaining power of buyers or customers

Among the five forces, the bargaining power of consumers is strong in impacting Whole Foods Market. This element refers to the effect of buyers on businesses. In this case, the external factors contributing to the strong bargaining power of customers are low switching costs, high quality of information, and a small volume of individual purchases. The low switching cost and high quality of information have more impact than individual purchases.

Most Whole Foods' customers are individuals whose purchases are small compared to the firm's total revenues. With low switching costs, customers have lower burdens to switch to other retailers. In addition, Whole Foods customers can access information to evaluate the company's products. Therefore, Whole Foods Market must address consumer concerns to retain customers. The company addresses this part by implementing new policies for product quality. For example, to address concerns about genetically modified organisms (GMOs), Whole Foods Market plans to complete the implementation of a new labeling rule for GMO-containing products in its stores by 2018.

Bargaining power of suppliers

The bargaining power of suppliers has a moderate impact on Whole Foods Market. In the case of this retailer, the external factors of supply levels, sizes of individual suppliers, and high numbers of suppliers all contribute to a moderate force of supplier power.

Whole Foods Market has many suppliers, including local, regional, and national wholesalers and producers from America and overseas. A large number of suppliers weakens the negotiating power of suppliers on the firm. However, Whole Foods Market's suppliers are primarily large wholesalers, such as United Natural Foods Inc, the largest third-party supplier accounting for more than 30% of Whole Foods' total purchases. The large shares of these suppliers keep a fair part of purchase power in their hands. Therefore, it is apparent that these suppliers exert moderate pressure on Whole Foods Market.

Meanwhile, suppliers could impose demands on the company and expect moderate results due to the limited supply of truly organic and natural non-GMO foods. Whole Foods Market deal with this force by expanding its supply chain, which now has a global scope and includes producers in developing countries. The resulting diversification of suppliers helps dilute their bargaining power.

Threat of substitutes or substitution

Many substitutes for non-organic foods or products compete with Whole Foods' products, which are cheaper than organic options. Although consumers are increasingly shifting toward healthier food options, the threat of shifting to non-organic substitutes still presents a strong force because the substitutes are also highly available in addition to the cheaper costs. To address this impact, Whole Foods Market focuses on high quality as a strategy and occasionally offers discounts to attract customers.

Threat of new entrants or new entry

The spending required to establish a new business is moderate in healthy food and grocery retail. This means small retailers can compete with Whole Foods Market. Meanwhile, there are few barriers to entry into the organic grocery segment because it is relatively easy to operate in this type of business. This leads to Whole Foods Market facing a vital force from the threat of new entrants or new entries.

Management

- Gabrielle Sulzberger, Chairman of the Board
- John P. Mackey, Chief Executive Officer & Director
- A. C. Gallo, President & Chief Operating Officer
- Keith Manbeck, Chief Financial Officer & Executive Vice President
- Jason J. Buechel, Chief Information Officer & Executive VP
- Ho Tien, Global Vice President-Culinary & Hospitality
- Scott A. Allshouse, President-Mid Atlantic Region
- Patrick E. Bradley, President-Southern Pacific Region

- Mark T. Dixon, President-Southwest Region
- James P. Sud, Executive VP-Growth & Business Development
- Jeff Turnas, President-Whole Foods Market
- David A. Lannon, Executive Vice President-Operations
- Michael Bashaw, President-Midwest Region
- Laura A. Derba, President-North Atlantic Region
- Don J. Clark, Global Vice President-Purchasing
- Kenneth J. Meyer, Executive Vice President-Operations
- Christina Minardi, President-North East Region
- Betsy Foster, Global VP-Growth & Business Development
- Brian O'Connell, Global Vice President-Operational Finance
- Joseph Rogoff, President-Pacific Northwest Region
- Omar Gaye, President-South Region
- Robert Twyman, President-Northern California Region
- Sonya Gafsi Oblisk, Global Vice President-Marketing
- Sam Ferguson, Global Vice President-Accounting & Controller
- Brooke Buchanan, Global Vice President-Communications
- Cindy McCann, Global Vice President-Investor Relations
- Heather Stern, Global VP-Legal Affairs & General Counsel
- Walter E. Robb, Director
- Ronald M. Shaich, Independent Director
- Scott F. Powers, Independent Director
- Sharon L. McCollam, Director
- Joe Mansueto, Independent Director
- Kenneth C. Hicks, Independent Director
- Mary Ellen Coe, Independent Director
- Hass M. Hassan, Independent Director
- Stephanie Kugelman, Independent Director
- Jonathan A. Seiffer, Independent Director

Major Owners (319.69 million shares outstanding by June 12th, 2017)

Specific holders

Specific fiolacis		
Individual or Entity	Shares Owned as of July 17th, 2017	Shares Owned percentage
Flanagan Glenda J	215,122	0.06729%
Sud James P	183,496	0.05740%
Robb Walter E Iv	145,612	0.04555%
Seiffer Jonathan A	130,479	0.04081%

Tindell William A	75,919	0.02375%
Elstrott John	61,609	0.01927%
Greene-Sulzberger Gabrielle	52,501	0.01642%
Gallo A C	51,699	0.01617%
Hassan Shahid M	33,144	0.01037%
Siegel Morris J	27,155	0.00849%
Kugelman Stephanie	21,750	0.00680%
Meyer Kenneth J	12,091	0.00378%
Sorenson Ralph Z	12,088	0.00378%
Lannon David	11,733	0.00367%
Manbeck Keith	10,000	0.00313%
Sokoloff Jonathan D	8,983	0.00281%
Lang Roberta	5,761	0.00180%
Allshouse Scott A	5,386	0.00168%
Nunez Juan	5,244	0.00164%
Bashaw Michael	4,585	0.00143%
Twyman Robert M	4,427	0.00138%
Buechel Jason	3,612	0.00113%
Mansueto Joseph D	3,600	0.00113%
Rogoff Joseph	2,392	0.00075%
Dixon Mark T	2,001	0.00063%
Gaye Omar	1,929	0.00060%
Turner Robert R	1,465	0.00046%
Derba Laura A	1,218	0.00038%
Coe Mary Ellen	1,200	0.00038%
Bradley Patrick E	1,196	0.00037%
Minardi Christina	1,196	0.00037%
Turnas Jeff	335	0.00010%

Breakdown

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Shares Held by All Insiders and 5% of Owners	0.81%
% of Shares Held by Institutional & Mutual Fund Owners	80.80%
% of Float Held by Institutional & Mutual Fund Owners	81.46%
Number of Institutions Holding Shares	733

News

- Whole Foods Market products are now available for delivery in Wilmington, NC. Customers
 can order through shipment now, including Wilmington, North Carolina. April 4th, 2017,
 Whole Foods Market's partnership with grocery delivery service shipment now includes
 Wilmington, North Carolina.
- Amazon to Acquire Whole Foods Market. (Whole Foods Market ranked #28, and Amazon ranked #2 on Fortune's 2017 list of World's Most Admired Companies) On June 16th, 2017, Amazon and Whole Foods Market, Inc. announced that they have entered into a definitive merger agreement under which Amazon will acquire Whole Foods Market for \$42 per share in an all-cash transaction valued at approximately \$13.7 billion, including Whole Foods Market's net debt.

The chart below shows two price jumps. The first one was in early April 2017, a few days after Whole Foods announced its new delivery service in Wilmington, NC. The second one is right after the release of Amazon's acquisition of the company in the past month.



Figure 1. Stock price whole foods Market from 2007 January to now

- Whole Foods Market Appoints Keith Manbeck as Chief Financial Officer (Brings More than Two Decades of Financial and Operating Expertise at Leading Retail Companies Will Support Whole Foods Market's Accelerated Path to Shareholder Value Creation). May 10th, 2017 -- Whole Foods Market, Inc. announced the appointment of Keith Manbeck as Executive Vice President and Chief Financial Officer, effective May 17th, 2017. Mr. Manbeck will join a leadership team implementing an accelerated plan to enhance shareholder value in a dynamic and increasingly competitive marketplace.
- Whole Foods Market Announces Board Refreshment with the Appointment of Five New Independent Directors and New Board Leadership. May. 10, 2017, Gabrielle Sulzberger

was appointed the New Chair of the Board; Mary Ellen Coe was appointed the New Chair of Nominating & Governance Committee.

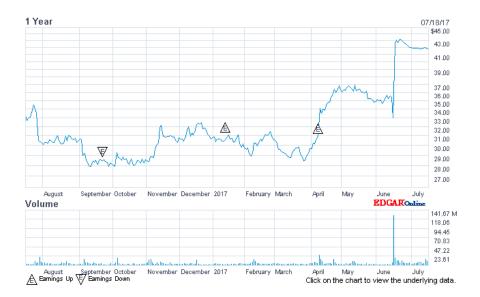


Figure 2. The stock price of Whole Foods Market in the last 12 months

- New Directors Provide Retail, Financial, and Leadership Expertise and Track Records Creating Value for Shareholders. May 10th, 2017 -- Whole Foods Market, Inc. announced a significant refreshment of its Board of Directors by appointing five new independent directors, effective immediately: Ken Hicks; Joe Mansueto; Sharon McCollam; Scott Powers; and Ron Shaich. The company also announced that Gabrielle Sulzberger had been appointed the new Chair of the Whole Foods Market Board of Directors, and Mary Ellen Coe has been appointed the new Chair of the Nominating & Governance Committee.
- Whole Foods Market Announces Changes to Leadership; Eliminates Co-CEO Structure; Appoints John Mackey CEO. November 2nd, 2016 -- The Board of Directors of Whole Foods Market today announced changes to the leadership structure, including transitioning from co-Chief Executive Officer to sole Chief Executive Officer, with co-Founder John Mackey to serve in that capacity.

Summary of Technical Analysis and Charts

The chart above shows the 52-week price history. The highest price was on June 17th, 2017, with a price of \$43.64, and the lowest was on September 14th, 2016, with a price of \$27.67. The price difference range is \$15.97. The stock I am currently trading is at the high end of its 52-week range.

FINANCIAL STATEMENTS ANALYSIS

Financial ratio analysis

The financial ratios for Whole Foods Market Inc are analyzed based on its financial statement for the fiscal year 2016 (each fiscal year ends on the last Sunday of September). Whole Foods is a supermarket chain featuring foods without artificial preservatives, colors, sweeteners, and hydrogenated fats. The annual report was chosen instead of the quarterly report to avoid the seasonal effect on sales.

The ratio analysis can be broken into five categories: short-term solvency or liquidity ratios, long-term solvency or financial leverage ratios, asset utilization or turnover ratios, profitability ratios, and market value ratios. These five categories focus on different aspects of Whole Foods' performance.

Table 1. Financial ratio analysis for Whole Foods Market Inc. in 2016.

		Ratio Formula	FY2016 Calculated Ratios
Short-term	Current ratio	<u>Current</u> <u>assets .</u> Current liabilities	1.47
solvency, or liquidity ratios	Quick ratio	1.09	
14103	Cash ratio	0.35	
	Total debt ratio	<u>Total assets - Total equity</u> Total assets	0.49
Long-term solvency, or financial leverage	Debt-equity ratio	<u>Total debt</u> Total equity	0.97
	Equity multiplier	1.97	
ratios	Times interest earned ratio	<u>EBIT</u> Interest	21.17
	Cash coverage ratio	EBIT + Depreciation Interest	33.32
Asset	Inventory turnover	Cost of goods sold Inventory	19.94
utilization, or turnover	Days sale in inventory	<u>365 days</u> . Inventory turnover	18.29
ratios	Receivable turnover	<u>Sales</u> . Accounts receivable	64.96

	Days sale in receivables	<u>365 days</u> . Receivables turnover	5.62	
	Total asset turnover	<u>Sales</u> . Total assets	2.48	
	Capital intensity	<u>Total assets</u> Sales	0.4	
	Profit margin	<u>Net income</u> Sales	3.22%	
Profitability	Return on assets (ROA)	<u>Net income</u> Total assets	8.00%	
ratios	Return on equity (ROE)	<u>Net income</u> Total equity	15.73%	
	ROE	Profit margin X Total asset turnover X Equity multiplier		
Market	Prince- earnings ratio	<u>Price per share</u> . Earnings per share	18.25	The close price of WMF stock on Oct01, 2016, was \$28.29
value ratios	Market-to- book ratio	<u>Market value per share</u> Book value per share	2.79	
	Book value per share	<u>Total equity</u> . Outstanding share	10.13	The outstanding shares of Sep25,2016 were 318.3 million

Financial conditions of Whole Foods Market in 2016

The short-term solvency ratios are called liquidity measures, focusing on Whole Foods' ability to pay its bills in the short run without causing financial stress. The current ratio looks at current assets and current liabilities. Among the components of current assets, inventory is often the least liquid current asset. Besides, impaired quality of the inventory usually leads to the inventory book value being unreliable as a measure of market value. Therefore, relatively large inventories could indicate short-term trouble. The liquidity ratios of Whole Foods are 1.47, 1.09, and 0.35 for current, quick, and cash ratios, respectively. These imply that the firm has no problem fulfilling its short-term liabilities and carried a reasonable portion of inventories (26% of its current assets) during 2016.

The financial leverage ratios characterize a firm's long-term ability to meet its obligations. Long-term debts are considered financial leverage. Therefore, the long-term solvency ratio is also known as the financial leverage ratio. The ratios of total debt, debt-equity, and equity multiplier describe the composition of the total assets. The time's interest earned ratio measures how well a company covers its interest obligations. In contrast, the cash coverage ratio uses the cash generated from operations to measure the ability to pay the interest. For

the fiscal year 2016, the total debts of Whole Foods account for 49% of total assets, and total equity accounts for 51%. The debt-equity ratio is 0.97 and is close to 1:1. The ratios of times interest earned and cash coverage are both high, indicating the company can quickly pay the interest with earned incomes.

The asset utilization or turnover ratios measure the efficiency with which a company uses its assets. The inventory turnover and days sales in inventory calculate the inventory turnover rate and days that inventory sits before it is sold. Similarly, receivable turnover and days sales in receivables measure how fast a firm collects payments on sales. The total asset turnover rate indicates the efficiency of asset utilization in generating assets, and capital intensity emphasizes the investment required to generate sales. As a grocery supermarket chain business, the inventory turnover and days sale in the inventory of Whole Foods are impressive. The receivable turnover is high, and days sales in receivable are low, which is in the normal range for a grocery retail industry. The total asset turnover ratio indicates that Whole Foods is efficient at operating its assets.

The profitability ratio focuses on the firm's efficiency in business operations. The supermarket is a volume business and usually has a low average profit margin. Traditional grocery stores have net profit margins ranging from 1.96 percent for Harris Teeter and 1.91 percent for Kroger's to 1.77 percent for Safeway. Natural and organic food markets have some of the highest profit margins. In 2012, Whole Foods' profit margin was 3.79%, and Fresh Market's was 5.58%. In 2016, this value dropped to 3.22%, lower than in 2012, suggesting the company maintained above-average profitability. The 8% ROA and 15.3% ROE are also on the higher end of this industry.

As of October 1st, 2016, Whole Foods' stock price was \$28.29. The price-earnings ratio is calculated based on this price, and the P/E ratio is 18.25, which means the stock shares sell for 18.25 times higher than its earnings per share. Since the book value reflects historical costs, the market-to-book ratio compares the market value of a firm's investment to its cost. Whole Foods has a market-to-book value of 2.79, indicating it successfully creates value for its shareholders.

ROE analysis with the extended Du-Pont Analysis

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\label{eq:roe} \textbf{ROE} = \begin{array}{c} \textbf{EBIT} \\ \textbf{Margin} \\ \end{array} \times \begin{array}{c} \textbf{Interest} \\ \textbf{Burden} \\ \end{array} \times \begin{array}{c} \textbf{Tax} \\ \textbf{Burden} \\ \end{array} \times \begin{array}{c} \textbf{Asset} \\ \textbf{Turnover} \\ \end{array} \times \begin{array}{c} \textbf{Leverage} \\ \end{array}
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Based on the 2016 financial statement, the components of the extended Du-Pont identity could be calculated as follows.

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EBIT Margin = EBIT/ Revenue = 868/15,724 = 0.0552 (5.52%) Interest Burden = EBT/EBIT = 827/868 = 0.9528 (95.28%) Tax Burden = Net income/ EBT = 507/827 = 0.6131 (61.31%) Asset turnover = Sales/Total assets = 15,724/6,341 = 2.48 Leverage = Total assets/Equity = 6,341/3,224 = 1.97 ROE = 0.0552 X 0.9528 X 0.6131 X 2.48 X 1.97 = 15.73%
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The time trends of ROE components

Table 2. The ROE components of Whole Foods Market from the fiscal year 2001 to 2016

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EBIT Margin	4.99%	5.62%	5.75%	6.10%	5.09%	6.06%	4.68%	3.05%	3.58%	4.94%	5.50%	6.43%	6.92%	6.66%	5.71%	5.52%
Interest Burden	84.22%	93.13%	95.52%	96.93%	99.07%	99.99%	98.64%	85.01%	87.19%	92.57%	99.30%	100.00%	100.00%	100.00%	100.00%	95.28%
Tax Burden	71.11%	60.00%	60.00%	60.00%	57.50%	60.00%	60.00%	55.45%	58.50%	59.70%	62.10%	61.97%	61.63%	61.21%	61.05%	61.31%
Asset Turnover	2.74	2.85	2.63	2.54	2.49	2.74	2.05	2.35	2.12	2.26	2.35	2.21	2.33	2.47	2.68	2.48
Leverage	2.03	1.6	1.54	1.54	1.38	1.45	2.2	2.24	2.32	1.68	1.43	1.39	1.43	1.51	1.52	1.97
ROE	16.58%	14.34%	13.36%	13.87%	9.98%	14.52%	12.53%	7.60%	9.02%	10.36%	11.45%	12.26%	14.21%	15.18%	14.22%	15.73%

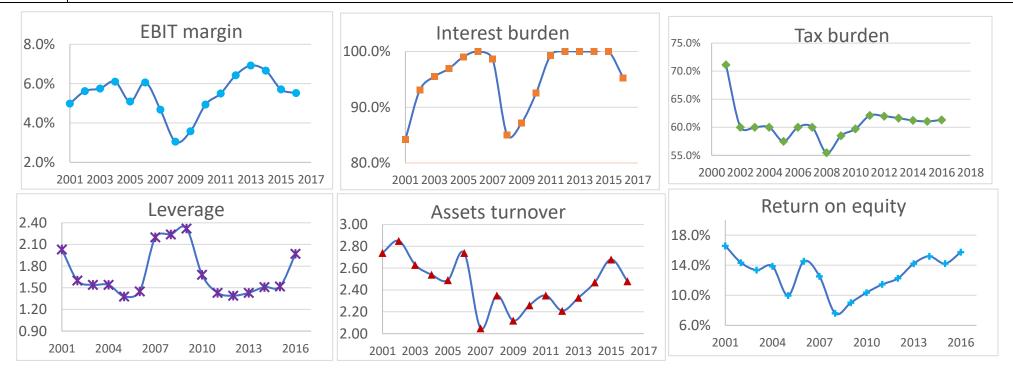


Figure 3. Time trends of ROE components from the fiscal year 2001 to 2016.

Except for the leverage, other ROE components with ROE have hit the lowest point in the fiscal years of 2007 to 2008. Oppositely, the leverage reached the highest peaks instead. This phenomenon correlates with the great recession in 2007-2008. EBIT margin, tax margin, assets turnover, and ROE all decreased to the lowest values in the recession period, reflecting the decreased earnings, fewer tax expenses, decreased revenue growth, and return on equity. However, the interest payment and leverage reached the highest during the same period. Whole Foods had more than 50% assets in debt during the recession, while it only kept the debts about 20-40% of the total assets afterward. Recently, leveraged growth coincided with a slight ROE drop in 2015. These data show that Whole Foods strategically leveraged debts to handle the economic recession and boost revenue growth.

Comparison of ROE components between Whole Foods Markets and its competitors

Table 3. ROE components of Whole Foods Market, Sprouts Farmers Market, and Kroger in the fiscal year 2014-2016

	Who	ole Foods M	arket	Sprou	its Farmers	Market	Kroger			
Term	FY2014	FY2015	FY2016	FY2014	FY2015	FY2016	FY2014	FY2015	FY2016	
EBIT Margin	6.66%	5.71%	5.52%	6.71%	6.23%	5.27%	2.87%	3.25%	2.98%	
Interest Burden	100.00%	100.00%	95.28%	87.42%	92.08%	93.07%	84.35%	86.48%	84.81%	
Tax Burden	61.21%	61.05%	61.31%	61.85%	62.62%	62.59%	65.70%	66.12%	67.78%	
Asset Turnover	2.47	2.68	2.48	2.17	2.52	2.81	3.55	3.24	3.16	
Leverage	1.51	1.52	1.97	2.00	1.73	2.14	5.61	5.44	5.44	
ROE	15.18%	14.22%	15.73%	15.71%	15.67%	18.47%	31.75%	30.39%	29.43%	

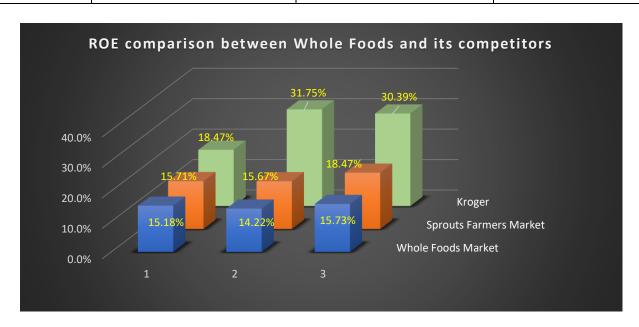


Figure 4. ROE of Whole Foods Markets and its competitors.

Sprouts Farmers Market and Kroger are competitors for Whole Foods. Whole Foods and Sprouts have a 2-3% higher EBIT margin than Kroger. Larger margins are probably attributed to the pricing strategy: organic groceries are usually sold at higher prices. Instead, Kroger has a higher tax burden value and asset turnover, which probably resulted from its high sales volume. During the past three years, Kroger had debts over 80% of its total assets, which accounts for a much higher composition than Whole Foods and Sprouts Farmers. Therefore, Kroger had to pay 8% to 14% more of its EBIT to creditors. Overall, Kroger has a 10% -15% higher return on equity compared to the other two supermarkets.

Growth rate and EPS forecast for Whole Foods Market, Inc.

The selected income statement data in table 4 is from SEC.gov. It is converted to a common-sized statement by being normalized against total revenue, as displayed in table 5. Based on the revenue growth from the past 15 years, the annual revenue growth can be plotted, revealing a linear decline, as shown in figure 2. This revenue growth data is used to generate a regression model to forecast future revenue growth, expressed in the math formula in figure 2 (slope - 0.0109, intercept 21.97). With this regression model, future revenue growth could be forecasted, as shown in Table 6.

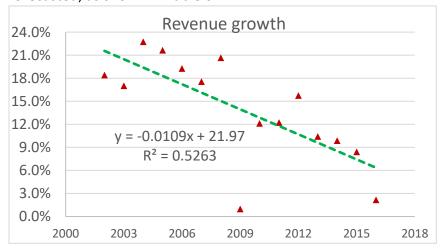


Figure 5. Historical revenue growth for Whole Foods.

Table 4. Revenue growth is forecasted based on the regression model generated from the historical data.

Fiscal year	Forecast revenue growth
2017	5.26%
2018	4.17%
2019	3.09%
2020	2.00%
2021	0.91%

To forecast EPS and cash flow per share, other revenue-standardized ratios like COGS (cost of goods sold), total operating expenses, interest expense, et al. will also be needed. Almost all these ratios went up and down in the past 15 years (2001 to 2016), as shown in figure 3. No significant regression model (linear relationship) could be observed in figure 3. The most recent trend of each ratio was then used to predict the next five years. All the predicted ratios are listed in the right-hand column in table 7. With all these predicted values, the future EPS and cash flow per share could be forecasted.

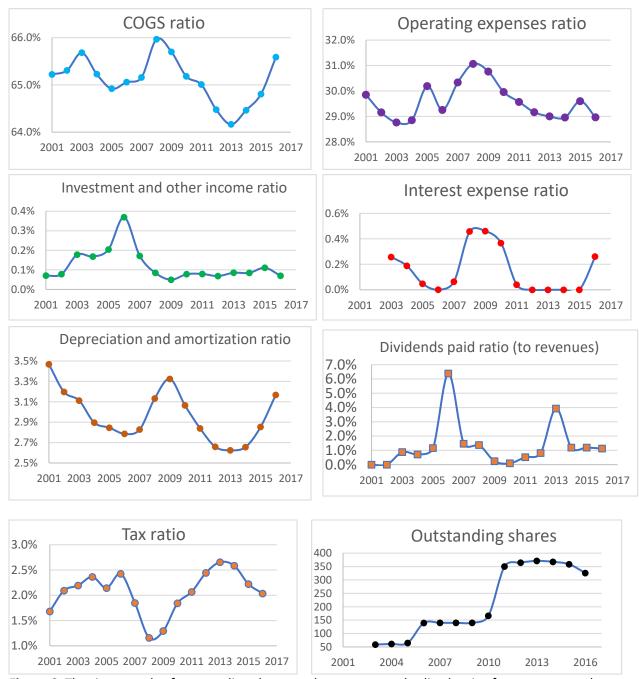


Figure 6. The time trends of outstanding shares and revenue-standardized ratios for expenses and earnings.

Table 5. Forecast of Whole Foods revenue growth, EPS, and cash flow per share for the next five years.

(In millions, except for per share and revenue growth)	2017	2018	2019	2020	2021	Forecast % of revenue
Forecast total revenue growth	5.26%	4.17%	3.09%	2.00%	0.91%	
Forecast total revenue	16,551	17,242	17,774	18,129	18,295	
Cost of goods sold and occupancy costs	10,924	11,380	11,731	11,965	12,075	66.00%
Gross profit	5,627	5,862	6,043	6,164	6,220	n/a
Total operating expenses	4,800	5,000	5,154	5,258	5,306	29.00%
Operating Income	828	862	889	906	915	n/a
Investment and other Income	8.28	8.62	8.89	9.06	9.15	0.05%
Earnings before interest and taxes (EBIT)	836	871	898	916	924	n/a
Interest expense	49.65	51.73	53.32	54.39	54.88	0.30%
Earnings before taxes (EBT)	786	819	844	861	869	n/a
Depreciation and amortization	554	578	595	607	613	3.35%
EBITDA	1,390	1,448	1,493	1,523	1,537	n/a
Provision for income taxes	331.0	344.8	355.5	362.6	365.9	2.00%
Net Income	455	474	489	499	503	n/a
Operating cash flow	1,059	1,103	1,138	1,160	1,171	n/a
Basic earnings per share (EPS)	1.38	1.44	1.48	1.51	1.52	n/a
Dividends Paid	199	207	213	218	220	1.20%
Outstanding shares	330	330	330	330	330	330
Cash flow per share	2.61	2.72	2.80	2.86	2.88	n/a

RISK AND PRICING

Discount rate

The capital asset pricing model (CAPM) is currently the most popular model used to estimate the return, with the systematic risks ben considered. $E(Ri) = Rf + \beta i \ X \ [E(RM) - Rf] \ Rf = 1.187\%$, the arithmetic average bank discount of T-bill, as the table is shown below. $\beta i = 0.63$, is obtained from Yahoo finance and E(RM) = 12.3%, the historical S&P 500 index return.

Table 6. The historical discount rate of Treasure bill.

	4 V	/EEKS	13 V	VEEKS	26 V	VEEKS	52 WEEKS		
Date	Bank Discount	Coupon Equivalent	Bank Coupon Discount Equivalent		Bank Discount	Coupon Equivalent	Bank Discount	Coupon Equivalent	
7/3/2017	0.95	0.96	1.04	1.06	1.11	1.13	1.21	1.24	
7/5/2017	0.95	0.96	1.03	1.05	1.13	1.15	1.21	1.24	
7/6/2017	0.93	0.94	1.02	1.04	1.12	1.14	1.2	1.23	

7/7/2017	0.92	0.93	1.03	1.05	1.12	1.14	1.19	1.22
7/10/2017	0.92	0.93	1.03	1.05	1.11	1.13	1.19	1.22
7/11/2017	0.95	0.96	1.03	1.05	1.12	1.14	1.17	1.2
7/12/2017	0.92	0.93	1.03	1.05	1.11	1.13	1.18	1.21
7/13/2017	0.93	0.94	1.03	1.05	1.12	1.14	1.19	1.22
7/14/2017	0.91	0.92	1.02	1.04	1.1	1.12	1.18	1.21
7/17/2017	0.92	0.93	1.05	1.07	1.08	1.1	1.18	1.21
7/18/2017	0.93	0.94	1.05	1.07	1.09	1.11	1.16	1.19
Arithmetic average	0.930	0.940	1.033	1.053	1.110	1.130	1.187	1.217

 $E(R_{WMF})_G = 1.187\% + 0.63 \text{ X} (12.3\% - 1.187\%) = 8.188\%$ will be the expected growth in Whole Foods Market's stock price if the economy grows.

According to S&P 500 index, the market return in a recessionary economy could be a reasonable -12.7%. Thus, $E(R_{WMF})_R = 1.187\% + 0.63 \text{ X } (-12.7\% - 1.187\%) = -7.562\%$. If there is a 30% chance for a recession economy and 70% of a well-growing economy, then the weighted returns on the stock of Whole Foods Market will be

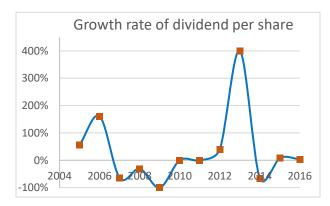
 $E(R_{WMF}) = 0.7 \text{ X } E(R_{WMF})_G + 0.3 \text{ X } E(R_{WMF})_R = 0.7 \text{ X } 8.188\% - 0.3 \text{ X } 7.562\% = 3.463\%$

Risk premium

Risk premium = $E(R_{WMF})$ - R_f = 3.463% - 1.187% = 2.276%. This return is the difference between equity return and risk-free investment, rewarded for bearing the business risks of Whole Foods Market, Inc.

Valuation based on price multiples

The figures below show the growth rate of dividends per share over the past ten years (left) and ratios of dividend payout and retention. Whole Foods Market started to pay dividends in 2003 and stopped in 2010 and 2011 due to the economic recession. The growth rate shows no constant growth pattern and varies between -100% and 400%. Therefore, the discount cash flow approach is unsuitable for stock price estimation.



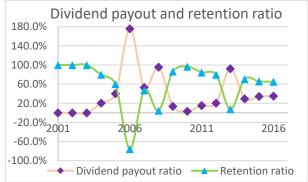


Figure 8. The growth rate of dividends per share, dividend payout, and retention ratio.

Generally, the P/E ratio is higher for a company with a higher growth rate. From the earnings forecast and growth forecast, the EPS of Whole Foods Market for 2018 is \$1.44. In the past five years, the average P/E ratio for Whole Foods Market has been 29.27, within a range between 18.04 and 45.62.

One fair price calculated based on Whole Foods' historical average P/E would be \$1.44 X 29.27 = \$42.15, which is close to the price that Amazon offered for the acquisition. The benchmark for Whole Foods Market is Sprouts Famers Market, with a current P/E ratio of 28.35. Another calculated fair price would be calculated with this benchmark ratio of \$1.44 X 28.35 = \$40.82. The average of these two prices will be the projected price for 2018, \$41.49.

Recommendation.

The current stock price of Whole Foods is very close to my calculated fair value. The merger with Amazon will likely help Whole Foods expand its revenues. With Amazon's well-established distribution chains and e-tailing platform, I expect Whole Foods will experience more revenue growth from online business and increased profit margins resulting from more bargaining power over suppliers and a higher sales volume. Whole Foods Market is in the stage of mature growth, featured by the decelerating growth rate. This merger with Amazon will start renovating traditional grocery shopping with internet technology and a robotic automation system. We can expect that it will add massive value to Whole Foods. Besides, the new business model, combined with the traditional model, will bring Whole Foods many opportunities, help the company expand, and may bring the retail business onto another rapid growth stage. Although this renovation highly likely bears higher risks, this risk will likely be greatly rewarded in the long run. Therefore, I recommend shareholders hold on to the stocks.

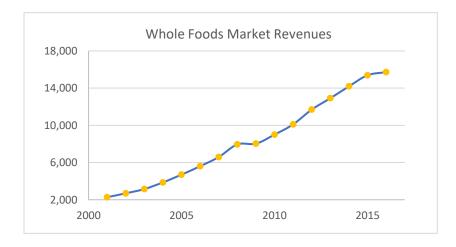


Figure 9. Time trend of Whole Foods Market sales revenue.

APPENDIX

Table 7. Selected income statement data of Whole Foods from the year 2001 to 2016

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total revenue (In millions, except for per share and operating data)	2,272	2,690	3,149	3,865	4,701	5,607	6,592	7,954	8,032	9,006	10,108	11,699	12,917	14,194	15,389	15,724
Cost of goods sold and occupancy costs	1,482	1,757	2,068	2,521	3,052	3,648	4,295	5,247	5,277	5,870	6,571	7,543	8,288	9,150	9,973	10,313
Gross profit	790	933	1,081	1,344	1,649	1,959	2,297	2,707	2,755	3,136	3,537	4,156	4,629	5,044	5,416	5,411
Total operating expenses	678	784	906	1,115	1,419	1,640	2,000	2,471	2,471	2,698	2,989	3,412	3,746	4,110	4,555	4,554
Operating Income	112	149	175	229	230	319	297	236	284	438	548	744	883	934	861	857
Investment and other Income	1.6	2.1	5.6	6.5	9.6	20.7	11.3	6.7	4.0	7.0	8.0	8.0	11.0	12.0	17.0	11.0
Earnings before interest and taxes (EBIT)	114	151	181	236	240	340	308	243	288	445	556	752	894	946	878	868
Interest expense	17.89	10.38	8.11	7.25	2.22	0.03	4.20	36.40	37.00	33.00	4.00					41.00
Earnings before taxes (EBT)	96	141	172	228	237	340	304	206	251	412	552	752	894	946	878	827
Depreciation and amortization	78.8	86.0	98.0	111.9	133.8	156.2	186.4	249.2	267.0	276.0	287.0	311.0	339.0	377.0	439.0	498.0
EBITDA	192	237	279	347	373	496	495	492	555	721	843	1,063	1,233	1,323	1,317	1,366
Provision for income taxes	38.2	56.3	69.1	91.4	100.8	135.9	121.8	92.0	104.0	166.0	209.0	286.0	343.0	367.0	342.0	320.0
Net Income	58	84	103	137	137	204	182	114	147	246	343	466	551	579	536	507
Operating cash flow	154	181	210	256	273	360	373	400	451	555	634	777	890	956	975	1,046
Basic earnings per share (EPS)	1.26	1.50	1.76	2.24	2.10	1.46	1.30	0.82	0.42	0.72	0.98	1.28	1.48	1.57	1.49	1.55
Dividends Paid (combined)	0.00	0.00	0.00	27.73	54.68	358.08	96.74	109.07	19.83	8.50	52.62	94.51	508.00	170.00	184.00	177.00
Outstanding shares	53.66	56.39	59.04	61.32	65.05	139.33	140.09	139.89	140.41	166.24	350.50	364.80	371.20	367.80	358.50	326.10
Cash flow per share	2.87	3.21	3.55	3.72	3.35	0.01	1.97	2.08	3.07	3.29	1.66	1.87	1.03	2.14	2.21	2.66

Table 8. Common-sized income statement data (% of revenue) of Whole Foods from the year 2001 to 2016

Common size values (% of revenue)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total revenue growth		18.41%	17.03%	22.75%	21.64%	19.27%	17.56%	20.66%	0.98%	12.13%	12.24%	15.74%	10.41%	9.89%	8.42%	2.18%
Cost of goods sold and occupancy costs	65.22%	65.30%	65.68%	65.23%	64.92%	65.06%	65.16%	65.97%	65.70%	65.18%	65.01%	64.48%	64.16%	64.46%	64.81%	65.59%
Gross profit	34.78%	34.70%	34.32%	34.77%	35.08%	34.94%	34.84%	34.03%	34.30%	34.82%	34.99%	35.52%	35.84%	35.54%	35.19%	34.41%
Total operating expenses	29.85%	29.16%	28.76%	28.85%	30.19%	29.25%	30.34%	31.07%	30.76%	29.96%	29.57%	29.16%	29.00%	28.96%	29.60%	28.96%
Operating Income	4.93%	5.54%	5.56%	5.93%	4.89%	5.69%	4.51%	2.97%	3.54%	4.86%	5.42%	6.36%	6.84%	6.58%	5.59%	5.45%
Investment and other Income	0.07%	0.08%	0.18%	0.17%	0.20%	0.37%	0.17%	0.08%	0.05%	0.08%	0.08%	0.07%	0.09%	0.08%	0.11%	0.07%
Earnings before interest and taxes (EBIT)	5.00%	5.62%	5.74%	6.09%	5.10%	6.06%	4.68%	3.05%	3.59%	4.94%	5.50%	6.43%	6.92%	6.66%	5.71%	5.52%
Interest expense	0.79%	0.39%	0.26%	0.19%	0.05%	0.00%	0.06%	0.46%	0.46%	0.37%	0.04%	0.00%	0.00%	0.00%	0.00%	0.26%
Earnings before taxes (EBT)	4.21%	5.23%	5.48%	5.91%	5.05%	6.06%	4.61%	2.59%	3.13%	4.57%	5.46%	6.43%	6.92%	6.66%	5.71%	5.26%
Depreciation and amortization	3.47%	3.20%	3.11%	2.90%	2.85%	2.79%	2.83%	3.13%	3.32%	3.06%	2.84%	2.66%	2.62%	2.66%	2.85%	3.17%
EBITDA	8.47%	8.81%	8.85%	8.99%	7.94%	8.84%	7.50%	6.18%	6.91%	8.01%	8.34%	9.09%	9.55%	9.32%	8.56%	8.69%
Provision for income taxes	1.68%	2.09%	2.19%	2.36%	2.14%	2.42%	1.85%	1.16%	1.29%	1.84%	2.07%	2.44%	2.66%	2.59%	2.22%	2.04%
Net Income	2.53%	3.14%	3.28%	3.54%	2.91%	3.63%	2.77%	1.44%	1.83%	2.73%	3.39%	3.98%	4.27%	4.08%	3.48%	3.22%
Operating cash flow	6.79%	6.72%	6.65%	6.62%	5.80%	6.42%	5.66%	5.03%	5.62%	6.16%	6.27%	6.64%	6.89%	6.74%	6.34%	6.65%
Basic earning per share (EPS)	0.06%	0.06%	0.06%	0.06%	0.04%	0.03%	0.02%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
Dividends Paid	0.00%	0.00%	0.00%	0.72%	1.16%	6.39%	1.47%	1.37%	0.25%	0.09%	0.52%	0.81%	3.93%	1.20%	1.20%	1.13%
Cash flow per share	0.13%	0.12%	0.11%	0.10%	0.07%	0.00%	0.03%	0.03%	0.04%	0.04%	0.02%	0.02%	0.01%	0.02%	0.01%	0.02%

INFORMATION RESOURCES

- http://quotes.wsj.com/WFM/company-people
- https://www2.deloitte.com/us/en/pages/consumer-business/articles/retaildistribution-industry-outlook.html
- http://panmore.com/whole-foods-market-swot-analysis-recommendations
- http://www.swotandpestle.com/whole-foods-market-inc/?succes=1
- http://panmore.com/whole-foods-market-five-forces-analysis-porters-model
- http://marketrealist.com/2015/11/analyzing-opportunities-threats-whole-foods-fiscal-2015/
- http://www1.salary.com/WHOLE-FOODS-MARKET-INC-Executive-Salaries.html
- http://media.wholefoodsmarket.com/news/P20
- http://investor.wholefoodsmarket.com/investors/press-releases/financialreleases/default.aspx
- https://finance.yahoo.com/quote/WFM/?p=WFM
- http://www.nasdag.com/symbol/wfm
- https://www.sec.gov/cgi-bin/browseedgar?action=getcompany&CIK=0000865436&type=10-K&dateb=&owner=exclude&count=40
- https://www.treasury.gov/resource-center/data-chart-center/interestrates/Pages/TextView.aspx?data=billrates
- https://www.advisorperspectives.com/dshort/commentaries/2014/10/08/the-s-p-500and-recessions
- https://ycharts.com/companies/WFM