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Research Project in Finance: Target Corporation

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Research Project in Finance

Target Corporation

Saba Ajmal

Introduction

Target Corporation was founded in Minnesota and is currently the eight-largest retailer in the US. Target Corp. stock is a part of the S&P500 index. Target's primary business focus is on selling customers everyday essentials that are on the trendier side at a reasonable price (Form 10-k). Target Corp. has designed a system to provide customers with a unique shopping experience that is well integrated in stores and online via Target.com. According to the firm's 10-k report, "Our ability to deliver a preferred shopping experience to our guests is supported by our supply chain and technology, our devotion to innovation, our loyalty offerings and suite of fulfillment options, and our disciplined approach to managing our business and investing in future growth." Target Corp. sells a wide array of items ranging from consumer staples such as food to general merchandise such as beauty and household items, apparel, electronics, toys, etc. The food section includes grocery, perishables, dairy, produce, etc. Some Target stores around the country also include an in-house Target café, Starbucks, and other service offerings such as Target Optical (Bloomberg, 2019).

One of the biggest advantages Target has over other retailers is its ability to differentiate its products and services from traditional retailers. It is able to provide customers with valuable products at reasonable prices. The company sells brands they own as well other third-party brands. Some CVS pharmacy stores also operate within a Target store, generating annual revenues for the company. Majority of the revenue is generated through geographical locations within the US, and the company has operations primarily within the US. Target had a total of 1,844 stores as of February 2019, out of which it owns about 1.525.

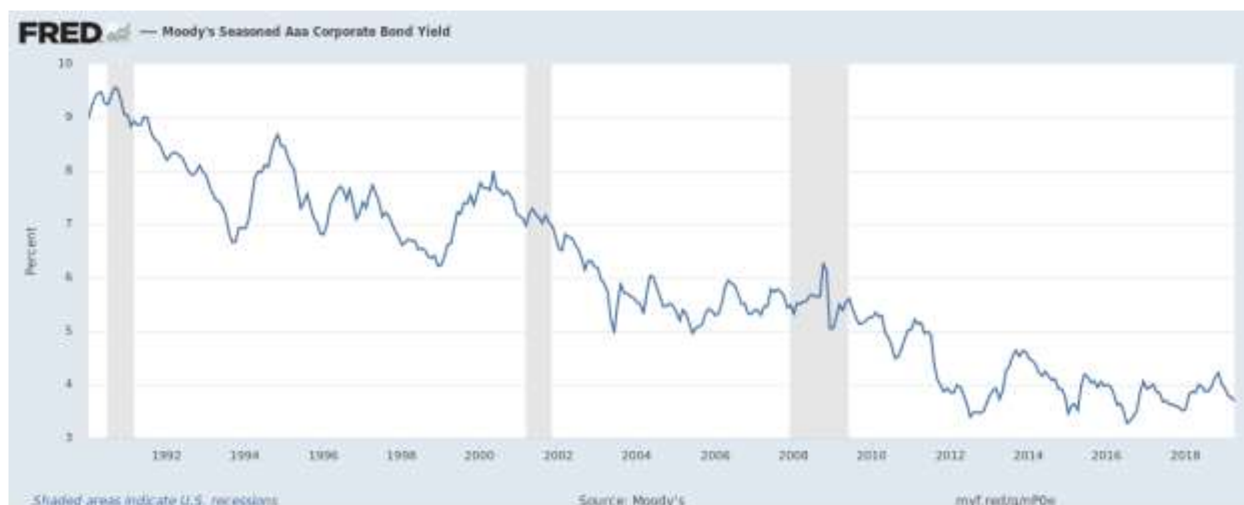
Target Corp. has made forecasts for 2019 earnings which are well above analysts' estimates. This increase can be attributed to investments made by the company in order to attract customers to shop online. Holiday sales also played a major role in the earnings jump (Venugopal, 2019). In order to compete with online giant, Amazon, Target offered free 2-day shipping on a wide variety of items as well increased pick up locations for online orders around the country. Some stores have introduced same-day pickup delivery as well as curbside pickup.

The company's CEO, Brian Cornell, talked about how the company successfully capitalized on opportunities available in the market due to the liquidation of Toys 'R' Us. The firm was quick to react to the bankruptcy of Toys 'R' Us and gained huge market shares in the toys and baby section. The company's investments geared towards smaller stores primarily in college towns as well as remodeling hundreds of stores have started paying off. The retailer is also heavily investing in the digital and e-commerce world. For example, "it has recently announced an upcoming partnership with Pinterest to integrate Lens, the visual search offered by Pinterest, to its online store" (Gecgil, 2019). Adjusted profit for 2019 forecast was between $5.75 and $6.05 per share, which was greater than analyst's expectations of $5.61 per share.

Economic Analysis

The economic analysis section involves looking at economic outlook for the US as well as the world. Different leading indicators are used to forecast economic performance in the future, and lagging indicators confirm the occurrence of a pattern in a business cycle (Investopedia, 2018). Good examples of leading indicators include bond yields and new housing. Unemployment rate is one of the most popular lagging indicators, as well as the Consumer Price

Index (CPI). Coincident indicators change at the same time as the economy changes and include measures such as GDP and personal income. The following graphs depicted below show the historical trends in these indicators:

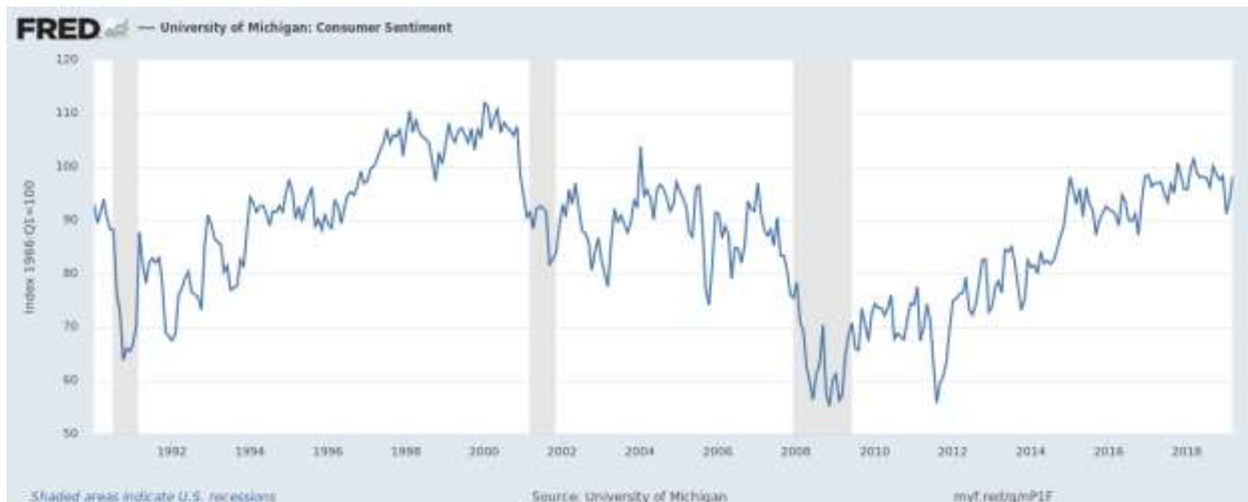


Corporate Bond Yield is a leading economic indicator, and bond yield usually rise in periods of recessions. This is evident by increasing yields right before the recession of 2008 (grey area).

Unemployment rate is a lagging indicator, and the graph shows a spike in unemployment rate occurs closer to 2010, after the recession had already occurred.

CPI is also a lagging indicator, which basically shows how consumer products are priced in an economy. After the recession occurred in 2008, the CPI can be seen dipping towards the end of 2009 and into 2010 as people were spending less on consumer goods, which drove inflation down.

GDP is a coincident indicator, and it can be seen falling over the course of 2008-2010 as the financial crisis was underway.



One indicator that is applicable to the retail industry in particular compiled by the University of Michigan is the Consumer Confidence Index or the Consumer Sentiment Index. It is a leading indicator that can provide information about households' consumption and saving patterns in the future. The CCI helps provide a clear picture about how confidence of consumer about the general economy and their income can affect buying behavior. During periods of recessions, as highlighted by the grey areas in the graph, the CCI took some big hits as many consumers faced joblessness, which in turn affected their buying patterns.

The US economy has been doing better than what forecasts have predicted (Amadeo, 2019). Due to the Trump administration's tax cuts implemented at the end of 2017, the GDP increased at an annual rate of 3.5% in the third quarter and at 4.2% in the second quarter of 2018. (Kelleher, 2018). Consumer spending and business investment boosted the GDP for 2018 as the public became more optimistic about the well-being of the economy and the bull market. Most economists are now predicting a slowdown in the economy after a year of soaring GDP growth.

According to an article published in The Balance (2019), there is a high chance of GDP growth decreasing in the upcoming years to 2.1% in 2019, 1.9% in 2020, and 1.8% in 2021.

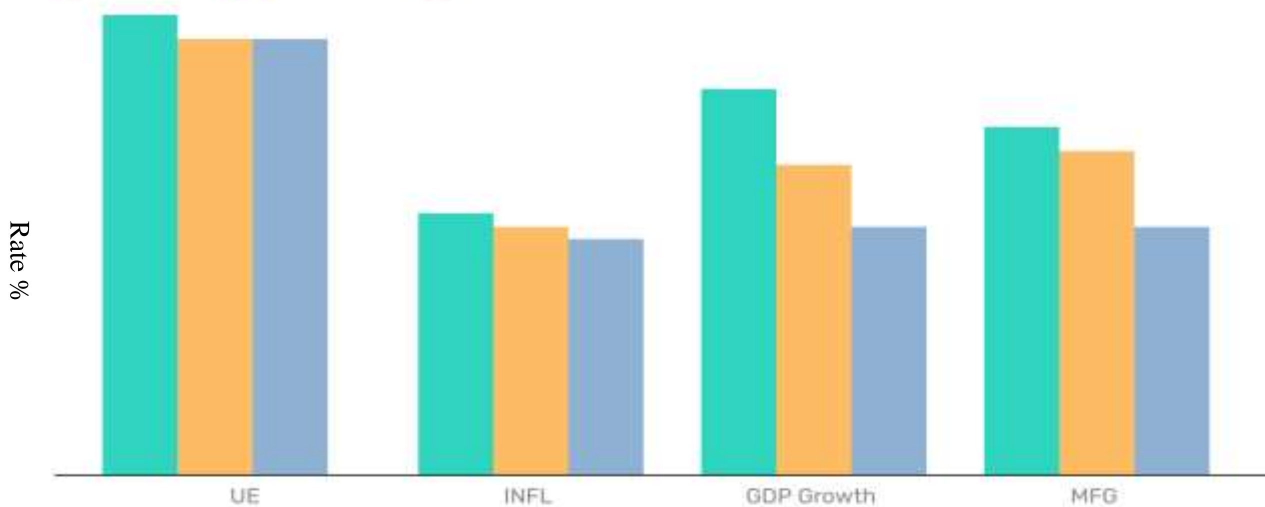
According to Goldman Sachs, GDP forecasts will come down to 1.8% in the third quarter of 2019 and to 1.6% during the fourth quarter. The decline in GDP growth can be attributed to a variety of factors. (Kelleher, 2018). The Trump administration's economic policy is very aggressive and has focused on tightening of trade policies as well as increasing trade tariffs. The economy is also starting to experience slower growth as the impact of the tax cuts starts fading away. The fed funds rate keeps rising, which is raising borrowing costs for consumers as well as businesses. Wall Street analysts also predict slowing economic growth as they believe earnings have peaked and it has been about 10 years since the last bear market.

In December 2018, the Federal Reserve raised rates to 2.5%, but plans to keep it steady until at least 2020 (Amadeo, 2019). When the Fed conducts tightening of monetary policy by increasing interest rates, it's aim is to slow down an overheating economy and keep inflation at its target level. Credit tightening can cause GDP to slow down and unemployment to rise. This policy can turn out to be very risky, as multiple consecutive rate hikes can trigger a recession (Press, 2018). The results of rate hikes could be amplified if a trade war breaks loose in the upcoming months. Trump's high tariffs will be met by equally severe export penalties from US trading partners such as China, Canada, the European Union, etc. Higher penalties for US exports can result in a negative trade balance with consumers paying higher prices for imported goods. This can further depress GDP growth.

Unemployment rate which serves as a lagging indicator is forecast to be around 3.6%, slightly lower than the previous quarters for the upcoming year (Amadeo, 2019). The Bureau of Labor Statistics predicts that the economy will be operating at full employment by 2020 with an unemployment rate between 4% and 5%. Jobs will grow at the fastest pace in the healthcare industry, followed by the tech and educational sector. According to the Kliesen, a business

economist and research officer at the Federal Reserve Bank of St. Louis, “The unemployment rate measured 3.7 percent in October, and the number of job openings continues to exceed the number of unemployed persons. Growth of labor productivity continues to strengthen modestly, which has helped to boost wage growth. Output per hour (labor productivity) in the nonfarm business sector increased at a 3 percent rate in the second quarter and at a 2.2 percent rate in the third quarter”.

Inflation is expected to be about 2.1 percent in 2018 and 2019. Strengthening US Dollar and decreases in oil prices could reduce inflation (Kliesen, n.d.) However, The EIA’s energy outlook is predicting rising oil prices for the medium-term as well as long-term. As the world demand for oil keeps increasing, cheaper sources of oil are being used quickly, driving the price of oil higher. In addition, higher tariffs on imported commodities including steel, aluminum, and lumber can add to inflation. Long-term inflation expectations are expected to remain steady at approximately 2%, which is the FOMC’s target rate of inflation.



According to the IMF, the global economy has experienced a slowdown in growth since the last quarter of 2018. It is projecting the world economy to grow 0.2% and 0.1% lower than October 2018 in 2019 and 2020 respectively (Gopinath, 2019). One of the major causes for these forecasts is the uncertainty surrounding potential trade wars between economic leaders such as China and the US. This downward revision in the forecasted growth also includes effects of new automobile fuel emission standards in Germany, weakening domestic demand in Italy due to sovereign and financial risks, as well as diminishing growth in Turkey. Along with trade tensions between the US and China and the replacement of NAFTA with USMCA, other potential factors that can have negative effects on growth include, the exit of Britain from the EU and its implications on trade within Europe, as well a slowdown in the Chinese economy.

All in all, most economists predict a slowing growth in the global as well as the US economy. Trade disagreements, policy uncertainty, and long running bull markets are some of the factors that will influence GDP growth. High levels of public and private debt require countries to resolve geopolitical and economic issues to enhance trade and financial outlooks for each other around the world. A recession will most likely be avoided in the short and medium-term but might be a possibility in the long-term. Even though the yield curve is inverted, trade policy negotiations will have a significant impact on what shape it takes going forward. High tariffs and trade barriers can have a negative effect on economic growth, and if the Fed doesn't change its monetary policy in response, a possible flattening or inverting of the yield curve is possible. Yields on longer-term bonds could potentially be lower than short-term bonds, as investors start to invest more in longer-term bonds because they consider them a safe haven investment amidst all the chaos going on due to the trade wars.

Industry Analysis

The retail industry generally classifies companies that purchase large amounts of products from manufacturing companies and then sell them to customers for a profit. As of 2016, there have been around 3.8 million retailers in the US (SELECTUSA, n.d.). Target has been able to successfully differentiate itself from other retailers by using different factors such as price, variety of products, customer service, advertising, promotions, etc. (10-K). The company has been able to create value for customers in the past by relying on many competitive factors, and a loss of any of these would negatively affect its brand. Target Corp., like many other retailers, aims to attract a broad customer market. They do this by providing valuable goods for reasonable prices. Some of the risks identified in the 10-K report include reputational, competitive, investment and infrastructure, privacy, legal, and third-party risks. Some of the main competitors of Target include Walmart and Kohls (Nasdaq, 2019). Walmart pursues a low-cost strategy and is able to differentiate itself by providing everyday-low prices. Target prices are generally higher when compared to Walmart, but Target is able to counteract low cost by providing better exclusive brands and a wider array of products. Kohls competes on a strategy similar to that of Target by providing valuable items for reasonable prices. However, Target has a competitive advantage over Kohls as Kohls only sells limited clothing and apparel items. Target sells products ranging from food and grocery items to department store essentials including clothing, electronics, fashion accessories, etc.

Target falls in the retail industry and has many major and minor competitors. According to an article published by Deloitte, 2018 has proved to be a very strong year for the retail industry, with many companies experiencing record-breaking holiday sales, due to a strong US economy

and high consumer disposable income. Just like many other industry sectors, the retail industry is undergoing many transformations because of the ever-changing effects of online shopping and e-commerce. It is becoming increasingly challenging for retail companies to set themselves apart and satisfy customers as they become more and more informed. Consumers are demanding more personalized shopping experiences, along with heightened data privacy in light of all the 2018 social media scandals (Deloitte, 2018). Convergence of industries is also becoming increasingly common, with many tech companies making their way through the retail industry. Cointegration of advertising and social media is also becoming very popular.

In order to understand the key drivers of performance in the retail industry, internal data needs to be carefully analyzed. There are many different metrics that can be looked at to understand how to improve profit margins and sales (Heathe, n.d.). Some of them that are applicable to Target and specifically the retail industry include:

1. Sales per square foot- As Target has many physical stores, majority of its revenue comes from in-store sales. This is a very important indicator of performance as it can help a firm understand whether the present layout of the store is proving to be profitable. It can also help to do a cost vs benefit analysis to compare the lease payments of the store to the sales.
2. Foot traffic- This metric can be analyzed to infer what factors draw people into and out of the store. It can help a business understand what segments of the store tend to be busier and why. Management can then gear efforts towards increasing the overall foot traffic and improving areas of low foot traffic.
3. Conversion Rate- This can help a retailer understand how many customers are actually buying something versus the people coming in. A low ratio might imply that particular

factors such as out-of-stock products, poor guest service, not finding the right product, etc. are preventing customers from making a purchase.

4. Average Transaction Value- This indicator can help Target identify whether customers are spending more on the number of products they buy or on high-dollar items. This can help identify where to direct most purchasing, producing, or marketing efforts.

By analyzing Target Corp. through the framework of Porter's five forces, all the competitive forces affecting this industry can be understood. Management can use this to make decisions that direct upcoming trends to work in their favor and improve profitability. The five forces affect Target Corp. in the retail industry include:

1. Industry rivalry- Target falls into the discount-variety category of the retail industry. This sector is categorized by intense competition. Low growth, switching costs, and product differentiation are also some common factors of this industry (Looie, 2015). As Target sells a wide range of products, it is able to compete with many different sectors of the retail industry. Mass merchandisers such as Walmart and Costco compete on the basis of variety and cost. It faces competition from department stores such as Macy's and Kohl's. With the digital era coming into play, it also faces competition from online retailers such as Amazon. Target successfully differentiates itself by offering customers REDcards, which can be used either as debit or credit. Walmart, its major merchandising competitor doesn't offer such a service. One of the ways in which Target can ensure its long-term survival and profitability is through potential acquisitions of other retailers as intensity of competition increases.
2. Threat of new entrants- Generally speaking, the barriers to entry in the retail market are typically low. Now more than ever, online retailers are finding it increasingly easy to

compete as they don't need the high amounts of initial capital expenditure. Target is effectively counteracting online retailers by focusing investment efforts into the integration of Target.com with its brick-and-mortar stores. It also enjoys a reputational advantage over all the new online retailers as customers tend to place more trust in a known company where they regularly shop from compared to an unheard online store. Target needs to focus on maintaining its competitive edge and brand, in order to sustain its market share in the industry.

3. Threat of substitutes- The threat of substitutes in the retail industry is generally high as most products provided by firms are not unique and can easily be substituted with others. Products such as groceries and electronics offered by Target Corp. not including its exclusive brands have a high number of substitutes available in competitive stores such as Walmart, Costco, Kohl's, etc. Target tries to differentiate itself from competitors by focusing not only on the wants of the customer, but also on the guest service provided with the purchase. Recently, the company has been focusing on investing a lot of time and effort into creating experts within specific departments. They want customers to interact with staff who know exactly what they're talking about and can be useful in their buying decisions. This induces greater customer loyalty as it can help the shopping experience feel more personable.
4. Bargaining power of buyers- The power of buyers buying low-cost, easily substituted products is typically high. As firms face a high degree of competition from other retailers, and the products they offer aren't highly differentiated, the power of buyers is high. Switching costs are low, and customers can easily buy similar products from other stores.

Target has to compete on the basis on providing reasonable prices, as it can lose its customer base and a significant market share if it decides to raise its prices.

5. Bargaining power of suppliers- The power of suppliers in the retail industry is determined by the number of suppliers available to the companies. Target Corp. classifies as one of the biggest retailers in the US and the bargaining power of its suppliers is low. This is due to the fact that Target purchases a wide range of products from many different suppliers. A large number of suppliers may help Target to switch suppliers easily, therefore the bargaining power of an individual supplier may be low. Walmart is able to negotiate prices down with its suppliers to such low levels that it is able to pursue an everyday low-cost marketing strategy. Walmart has successfully been able to become bigger than any of its suppliers, and thus enjoys very high bargaining power with its suppliers. Target, on the other hand, hasn't yet been able to establish a devoted network of suppliers from which it could negotiate prices down, so it can't pursue a low-cost strategy.

SWOT Analysis

1. Strengths of Target Corporation

Target Corporation's major strength can be identified as an intangible asset, that is the company's reputation and brand image. 96% of Americans can identify the red Bullseye logo represents (Bullseye Love, 2014). Over the years, Target has grown to be recognized as the most trendy and hip discount store. It has been able to appeal to the younger generation with their advertising and marketing techniques. They have been able to keep up with their reputation of always satisfying customer demands with creative and valuable products and services (Fern Fort University, n.d.). In addition, Target has been very successful in staying up to date with changing

trends, coming up with new, innovative products. The company's presence in digital markets has also helped their business model, as customers are more satisfied with their integration of online and physical stores compared to other retailers. Moreover, Target has a good track record of generating high returns on capital investments for new projects (Fen Fort University, n.d.). Automation of many processes as well as having a strong network of suppliers has allowed the company to be able to predict demand more consistently, thus avoiding any shortfalls.

2. Weaknesses of Target Corporation

One of the major weaknesses that the company experiences is its inability to reduce prices in order to more efficiently compete with some of its close competitors such as Walmart. The company puts stress on providing valuable products with high quality that give customers the most bang for their buck. However, this also means charging higher prices in general, including products from the same suppliers as Walmart. This limits the areas in which the company can compete in. Secondly, Target's market share in the industry is 2.09% compared to Walmart, that has an astounding market share of 14.29% (CSIMarket, n.d.). Part of Walmart's large market share can be attributed to its presence in international markets. Walmart stores have been able to spread to 27 different countries, making it one of the biggest corporate giants in the world (Corporate Walmart, n.d.). Target, in comparison, has majority of its stores operating within the US., with many Canadian locations closed (Corporate Target, n.d.). Because of its long and stable financial history, Target has built a reputation of being a more mature firm only releasing products already tried and tested in the market. It is spending below average on Research and Development, thus lagging behind in terms of innovation (Fern Fort University, n.d.).

3. Opportunities for Target Corporation

As mentioned earlier, Target is missing out on a huge opportunity for a great potential market share by not expanding into international markets. The new trade agreement and tax cuts for corporations could mean tremendous savings that could be applied towards expanding not only into North American markets, but into other emerging economies such as India. This helps Target diversify its consumer base, which can provide immunization against slowdowns in the US economy. Target has already been pretty good about using its online platform to try and compete in the e-commerce industry. Expanding on this opportunity set, Target could use Big Data analytics to develop patterns about their customers and serve them better (Fern Fort University, n.d.). Moreover, Target has been working to remodel some of its stores to a smaller format along with easier checkout options. They have also changed the layout to make it feel more like a boutique store for clothes and accessories (Thomas, 2018). This has been working really well for the company, even in the face of competition from online retailers. The company should continue to capitalize on this opportunity and invest in remodeling and changing the layouts of its stores, especially in busy areas such as college towns, where customers don't necessarily need to go around the entire store to find the few essentials they're looking for.

4. Threats for Target Corporation

One of the biggest threats the company faces is in the form of lower profitability due to increased competition. With the advent of online shopping, the buying pattern of more and more customers is shifting (Fern Fort University, n.d.). Target not only has physical retailers such as Walmart and Costco, but also online retailers such as Amazon to compete with. If target doesn't keep up with the changing trends in the economy, it might find itself with strain on its revenues and profitability. The current business model could prove to be inadequate over the upcoming years

as the use of artificial intelligence, machine learning algorithms, and big data is being leveraged by companies such as Amazon to beat physical retailers every day. Target will also have to keep costs in check, as increased spending on R&D for innovative products, online platforms to boost sales, and remodeling existing stores can increase expenses dramatically, especially relative to Amazon who is able to avoid expenses related to physical stores such as lease payments. If the company decides to expand into international markets, it risks facing competition from local retailers as well as the know-how of doing business in a different country. The culture of different emerging economies can differ significantly from the US, which adds another layer of complexity in conducting business there. It also faces liabilities in the form of an unstable or constantly changing political, legal, and economic system. (Fern Fort University, n.d.).

Ratio Analysis

In this section, ratio analysis will help provide valuable insights about a company's efficiency, profitability, liquidity, and solvency. Time-series ratio analysis provides information about a firm's trends over time, while cross-sectional analysis compares company financial data with that of its peer companies within the industry.

Time-series Analysis

Operational efficiency ratios	**2018**	**2017**	**2016**
Inventory Turnover	6.3053	6.0467	5.8218
Fixed Asset Turnover	3.0261	2.8786	2.7131
Total Asset Turnover	1.9151	1.8479	1.7048

Efficiency ratios for Target have been increasing steadily over time which is a good sign. Increasing operational efficiency ratios means that Target is doing well in utilizing its assets and

managing its liabilities. An increasing inventory turnover implies that the company is selling inventory at a faster rate every year. The fixed asset turnover is also increasing over time, which implies that the company is making good use of its existing PP&E. Total asset turnover is rising steadily as well for Target, which indicates that the firm is generating increasing amounts of sales every year relative to its total assets. For example, in 2018, Target generated $1.92 in sales for every $1 invested in total assets.

Profitability ratios	**2018**	**2017**	**2016**
Net Profit Margin	3.897%	4.007%	3.891%
Gross Profit Margin	29.270%	29.690%	30.064%
Return on Assets	7.557%	7.501%	6.715%
Return on Equity	25.987%	24.375%	20.286%

Profitability ratios are used to asses a company's ability to generate profits relative to its sales, costs, assets and equity over time. Profit margins for Target appear to be slightly lower than the past two years. This implies that the company is able to generate lower profits as sales have increased over the past three years. One of the possible reasons for this could be rising cost of goods sold or a rise in other expenses. Return on assets and return on equity have been steadily improving since 2016. Target is able to provide equity holders a higher return year after year, while at the same time managing its assets well enough to generate an increasing ROA.

Liquidity Ratios	**2018**	**2017**	**2016**
Current Ratio	0.9608	0.9435	1.1195
Quick Ratio	0.3021	0.2897	0.4380
Cash Ratio	0.2025	0.1977	0.3206

Liquidity ratios measure a firm's ability to meet short term obligations that are due within one year. After analyzing Target's liquidity ratios, it can be inferred that the company's overall

liquidity position has worsened over the course of the last few years. The current ratio decreased by almost 18% in 2017 and increased by 2% in 2018. This is mainly due to a decrease in "assets of discontinued operations". These assets weren't going to last on the books forever, so a removal of these assets has affected the current ratio. A current ratio of less than 1 as in 2017 and 2018 means that Target only has 0.9435 and 0.9608 of current assets for each unit of current liability. A decrease in the quick and cash ratio over these three years is partly due to "assets of discontinued operations", and also because of a decline in cash and cash equivalents, mainly in short term investments. Overall, a decline the company's liquidity isn't a good sign, as it implies that Target is unable to meet its short-term obligations with its current level of assets.

Solvency Ratios	**2018**	**2017**	**2016**
Debt-to-Equity	2.4592	2.4174	2.1074
Debt-to-Capital	0.5335	0.5379	0.4962
Financial Leverage	3.4389	3.2494	3.0212
Interest Coverage	8.9154	6.4686	4.9082

Solvency ratios measure a company's ability to meet all of its financial obligations, short-term and long-term. They can help understand whether or not a company will be able to meet its liabilities in the future and continue as a going concern. As indicated by these ratios, Target's debt levels have been steadily rising over the last three years. Debt-to-Equity and Debt-to-Capital have both increased gradually, implying that Target has been adding more debt in its capital structure relative to equity. A Debt-to-Equity ratio of 0.5335 in 2018 implies that 53.35% of Target's activities are financed with debt, compared to 46.65% of equity. Financial leverage has also increased by about 14% from 2016 to 2017, implying that the company is using more debt to finance the acquisition of assets. Increasing financial leverage also implies increasing returns

to equity holders. Target is doing well in terms of meeting its interest payments, as the interest coverage ratio has increased. This is mainly due to the annual interest expense going down for the company. Part of the reason could be that Target has taken on long-term debt, and the current interest payments don't include interest expense for future years. Interest payments are also tax deductible, which makes its cheaper for the firm to finance via debt rather than equity. The firm's EBIT has decreased slightly over the past three years, so that can't be the reason for an improved interest coverage ratio.

Cross-Sectional Analysis

	Financial Ratios for 2018		
	Target	**Costco**	**Walmart**
Inventory Turnover	6.3053	11.7996	8.6007
Total Asset Turnover	1.9151	3.6689	2.4810
Net Profit Margin	3.897%	2.214%	1.971%
Gross Profit Margin	29.270%	13.014%	25.372%
Return on Assets	7.557%	8.122%	4.890%
Return on Equity	25.987%	25.920%	12.224%
Current Ratio	0.9608	1.0182	0.7598
Debt-to-Equity	2.4592	2.1161	1.5305
Financial Leverage	3.4389	3.1915	2.4997
Interest Coverage	8.9154	28.1761	9.3834

When compared to competitors in the retail industry, Target's efficiency ratios are lower than both Costco and Walmart. A lower inventory turnover ratio implies that the company may be holding onto inventory a bit too long, and it needs to try and come up with ways to sell inventory faster. Total asset turnover is also lower than either of the competitors, which means Target isn't generating as much revenues from its investment in total assets as its peers. Profit margins for Target are soaring when compared to both competitors. Target's gross as well as net

profit margin implies a higher percentage of profits relative to revenues when compared across the industry. The ROA and ROE of Target is fairly close to the ROA and ROE of Costco, which appears to be the standard across the board. Walmart appears to be struggling in generating comparable returns on its assets as well as equity. Since Target has a current ratio less than 1, it has fewer current assets than current liabilities. Its current ratio is better than that of Walmart, but lags behind Costco. Target increased debt in its capital structure in 2018, which is evident by a higher Debt-to-Equity and a higher financial leverage compared to its peers. However, its debt levels aren't significantly higher than that of the other two, so it is not a huge cause for concern. Target lags behind both peer companies in its interest coverage ratio, partly due to lower operating income and higher interest expenses. Costco has very low levels of interest expense, which explains why its interest coverage ratio is significantly higher than that of Walmart and Target. Walmart has 5x the amount of operating income of Target, which is why its interest coverage is slightly higher than Target.

DuPont Analysis

	ROE=	**Tax Burden**	**Interest Burden**	**EBIT Margin**	**Asset Turnover**	**Financial Leverage**
2018	25.668%	0.7990	0.8944	5.454%	1.9151	3.4389
2017	24.063%	0.8028	0.8594	5.809%	1.8479	3.2494
2016	20.039%	0.6902	0.8144	6.922%	1.7048	3.0212
	% change	**15.75%**	**9.83%**	**-21.20%**	**12.34%**	**13.83%**

DuPont Analysis pinpoints the exact reason as to why ROE has been increasing over the last three years. ROE will increase if the tax burden, interest burden, EBIT Margin, Asset Turnover, and Financial Leverage increase. The tax burden, interest burden, asset turnover, and financial leverage have all increased gradually. The increasing tax burden has had the largest

impact on ROE, with a 15.75% over the 2016-2018 period. Financial leverage had the second biggest impact on ROE, with a 13.83% increase over the 2016-2018 period. Asset turnover had a 12.34% increase over the 2016-2018 period, increasing ROE, followed by the interest burden. The EBIT margin has a decrease of 21.20% over the period, so it has contributed to a reduction of ROE. The company has taken on more risk by increasing leverage, so the interest burden has also increased. Higher levels of leverage instead of equity can increase returns to equity holders, as the residual income is diluted among fewer shareholders. As analyzed from the previous section, Target's higher levels of leverage are still very close to that of its peer companies, so it has been able to improve returns to shareholders, but it hasn't taken an excessive amount of risk. Close monitoring of this leverage ratio is necessary to ensure that a risk of default can be prevented.

Pro-Forma Analysis

In the projected financial statements, total liabilities and shareholders' equity exceed total assets.

	Assets	**Liabilities+ SH Equity**
2019	$ 39,293	$ 42,843
2020	$ 37,289	$ 44,402
2021	$ 35,277	$ 45,968

As depicted, projected assets are less than projected liabilities and equity for each of the next three years, proving that the firm doesn't need external financing. The excess financing

available could be used by the company to retire some of its debt, or to buy back shares, which can increase the stock price.

Investment Recommendation

After calculating the value of the Target stock using the dividend-discount model, price-multiples, and free cash flow valuation, I have gotten an average stock price of $78.16. The stock price as of the date of valuation was $82.28, so I have come to the conclusion that the stock is over-valued by $4.12. Keeping this in mind, I would issue a sell recommendation as the market price as of the date of valuation doesn't reflect the stock's intrinsic value.

All the methods used to value the stock of Target, DDM, price-multiples, and FCFF have proven to be very useful. This is because the company has had a history of paying stable dividends, and the dividend payout ratio reflects the economic profitability of the company. The required rate of return used to discount the cash flows, WACC, and the growth rates used were obtained from GuruFocus, which uses past and comparable company data in order to come up with these estimates. The DDM model, Leading P/E ratio, and the EV/EBITDA gave values of share price that are over-valued. The Trailing P/E, P/Sales, P/Book Value and the free cash flow valuation gave stock prices that are under-valued. The firm is adding more debt to its capital structure currently, so the free-cash flow to the firm provides a useful valuation as it doesn't take net borrowing into account like free-cash flow to equity does. The intrinsic value calculated as a result of this analysis has ranged between $70-$86. After calculating an average of $78.16, I have found that the shares are over-valued. I would recommend selling the stock as soon as

possible, as stock prices will converge to the true value over time, and an investor can lose money when that happens.

Appendix

(**Excel sheets submitted separately** with past 3-5 years financial statements of company, calculations of Financial ratios, DuPont ratio analysis; Projected Financial Statements, EFN calculation, and stock valuation methods used with calculations for estimated stock price).

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