

Walmart (WMT)

Sept. 17th, 2018

Consumer Staples – Retail and Wholesale

Stock Rating

HOLD

Investment Thesis

We recommend a **HOLD** rating for Walmart. Walmart’s recent strategy pivot to grow sales from increased ecommerce as opposed to opening new stores remains unproven. A high P/E ratio and middling inventory turnover rate keep Walmart from being an attractive investment relative to other companies in the sector.

Drivers of Thesis

- DCF and Relative Multiple valuations show the stock with modest room for growth with between a 10%-20% upside.
- Recent large capital outlays to acquire improved omni-channel services are unproven and, in some cases, such as Flipkart, may have include an excess premium.
- Walmart’s low beta and ability to compete on price make it an attractive defensive holding.

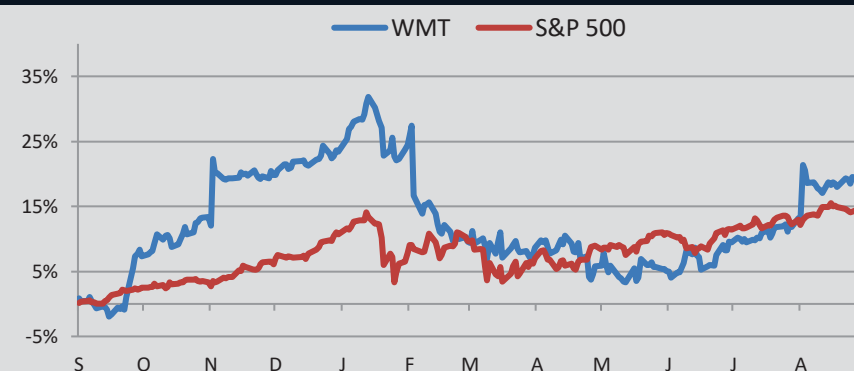
Risks to Thesis

- Recent gains on sales and ecommerce are modeled to continue in the near term. However, they may be the result of larger economic forces and will potentially slow down or level off during a downturn.
- Recent strong results in ecommerce in the past 2 quarters may indicate the model, which shows grows per-store revenue at historic rates is undervaluing growth and ROI from recent investments.
- Potential increases in Walmart’s costs could come from rising fuel prices, increased labor costs, or trucking shortages which could diminish forecasted future cash flow.

Earnings Estimates

Year	2016	2017	2018	2019E	2020E	2021E
EPS	\$4.58	\$4.40	\$3.29	\$4.28	\$4.51	\$4.83
growth	-9.7%	-3.9%	-25.2%	30.1%	5.4%	7.2%

12 Month Performance



Source: Yahoo Finance

Target Price

\$105-115

Henry Fund DCF	\$114.48
Henry Fund DDM	\$105.69
Relative Multiple	\$98.40

Price Data

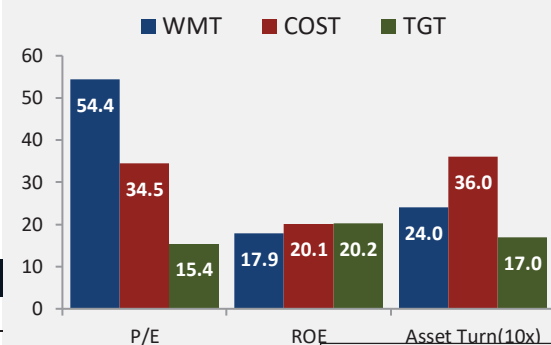
Current Price	\$94.59
52wk Range	\$77.50 – 109.98
Consensus 1yr Target	\$102.99

Key Statistics

Market Cap (B)	\$277
Shares Outstanding (M)	2,929
Institutional Ownership	30.1%
Five Year Beta	0.75
Dividend Yield	2.2%
Est. 5yr Growth	5.56%
Price/Earnings (TTM)	54.11
Price/Earnings (FY1)	19.6
Price/Sales (TTM)	0.54
Price/Book (mrq)	3.9

Profitability

Operating Margin	25.1%
Profit Margin	2.9%
Return on Assets (TTM)	7%
Return on Equity (TTM)	17.9%



Source: FactSet

Company Description

Walmart is the world’s largest retailer by sales. The company operates over 11,000 stores in 28 countries. It sells discount merchandise and groceries and leverages its premier supply chain to compete on price across all segments. Walmart utilizes multiple store formats including its best-known supercenter style retail outlets. It also operates member only wholesale stores, Sam’s Club, which provide steep discounts to members who purchase items in bulk.

EXECUTIVE SUMMARY

Walmart operates in several subsectors of the large retail sector. The company has worked to shift its stores from the more traditional discount department store model to either large Supercenters or smaller Neighborhood Markets. Additionally, recent trends toward ecommerce have spurred Walmart to make large investments in omni-channel capabilities (integrating a consumer's ability to purchase goods from across multiple options; digital, in-person, etc.) to allow them to compete in the ecommerce sector. This is necessary for the company as ecommerce has consistently shown growth for the past several years due to its poaching of sales volume from traditional brick-and-mortar retailers.

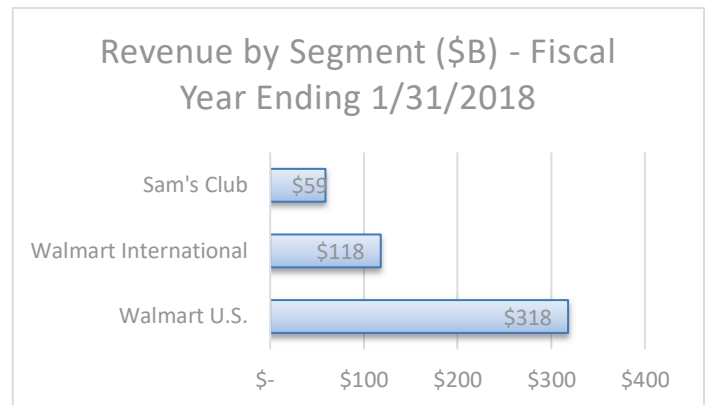
Walmart has benefited in 2018 from solid increases in their ecommerce sales, especially domestically, as well as favorable economic conditions. However, it is unclear if these conditions are sustainable for the company in the event of an economic slowdown or downturn. Further, Walmart has purchased several international companies in 2018 to improve their omni-channel capabilities abroad. These capital outlays are expected to decrease cash flows in the near term and present uncertain returns in the long term. This spending is in addition to expected stock buybacks, the combination of which will necessitate additional borrowing in a rising interest rate environment.

The current recommendation is a hold with the valuation of \$105-115. This provides an upside potential of 22% over the current price.

COMPANY DESCRIPTION

Walmart is a major American retail and wholesale business that is headquartered in Bentonville, AR. Walmart operates over 11,000 stores in total and employs over 2 million employees worldwide in 28 countries. Worldwide, Walmart is the largest retail and grocery company in terms of sales. The company operates in three business segments: Walmart U.S., Walmart International, and Sam's Club. The company provides grocery and consumer

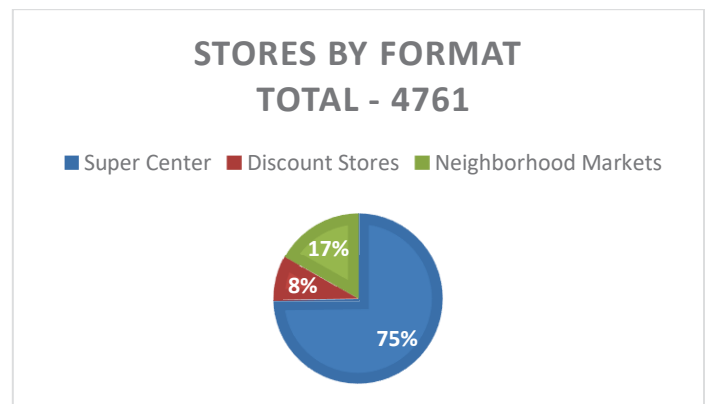
products through its Walmart U.S. and Walmart International segments and wholesale merchandise through its Sam's Club segment.



Source: Walmart 10K

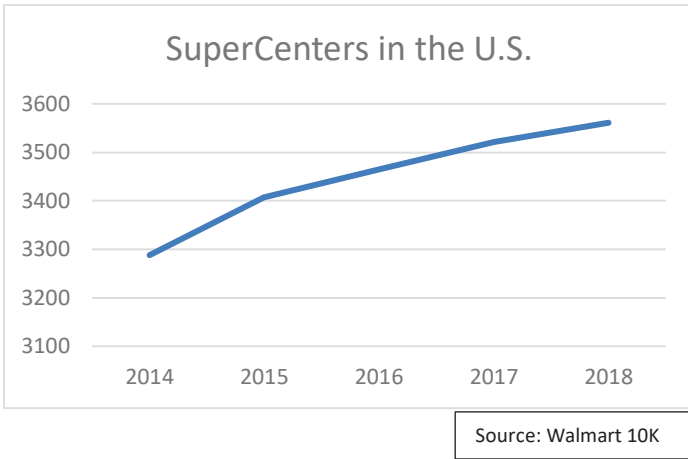
Walmart U.S.

Walmart U.S. is the largest of Walmart's segments and accounts for around two-thirds of the gross revenue that the company has made each year over the last five years. The segment includes three types of store formats as well as ecommerce. The store formats that are operated in this segment are: Supercenters, Discount Stores, and Neighborhood Markets.



Source: Walmart 10K

The Supercenter format sells general merchandise and groceries and has an average square footage per store of 178,000.

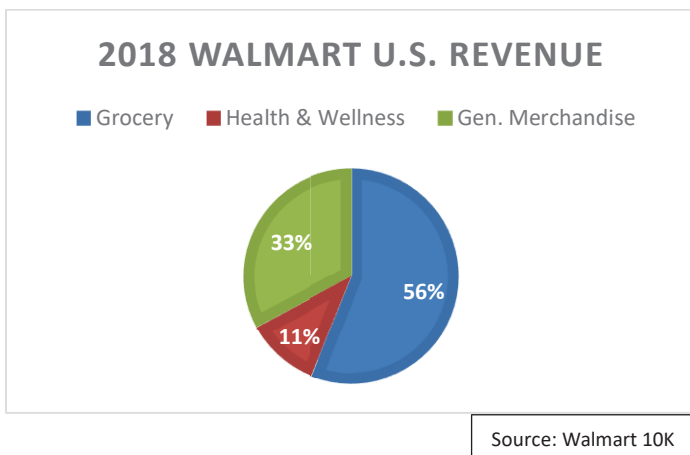


Walmart has continued to open new Supercenters each year over the last 5 years, as well as adding Supercenters through the conversion of Discount stores and Neighborhood Markets into Supercenters. Although the rate at which new Supercenters have been opened has decreased in the last three years, we expect the continuing of new openings at this new, slower rate.

The Discount Store format also sells general merchandise but has a more limited grocery selection and a smaller average square footage per store at 105,000.

The Neighborhood Market format stores are grocery only retailers and are considerably smaller than the other formats at an average square footage per store of 42,000.

Walmart reports revenue for this segment in three merchandise lines: grocery, health and wellness, and general merchandise. With the growth of the supercenter format of stores, Walmart has transformed themselves into a grocery store more than a merchandise retailer.



Also included in this segment are various ecommerce websites and services. Retail websites owned by Walmart include walmart.com, jet.com, bonobos.com, and others. Walmart U.S. has also invested heavily in other digital services for consumers, notably online grocery services and same-day delivery services. Due to the investment in ecommerce and digital services, we expect that the revenue in this segment will continue to grow despite fewer new stores being opened per year. Unfortunately, Walmart does not break out their ecommerce sales from general retail activity.

For modeling purposes, we anticipate a growth of 1.34% per year in total store numbers in this segment across the forecasted period. We are utilizing that in conjunction with an historical average of the per store square footage (which is intended to maintain the current ratio of store formats) to calculate the total square footage for this segment for each of the forecasted years. This total square footage is multiplied by the expected revenue per square foot for each year to arrive at the segment revenue. Per management's guidance from Q2 results, the per store revenue is increased by around 4% in year one with a historic CAGR of 1.3% used in the other forecasted years.

Walmart International

This segment consists of Walmart operations outside of the U.S. These stores come in a variety of formats and sizes. This segment operates in 27 countries. This segment accounts for around 24% of the total revenue for Walmart in 2018.

Geographic Market	Total Stores
Africa	424
Argentina	106
Brazil	465
Canada	410
Central America	778
Chile	378
China	443
India	20
Japan	336
Mexico	2,358

United Kingdom	642
Total	6,360

This segment also provides various ecommerce and digital services to customers. The merchandise selection of the segment is similar in the variety of merchandise for sale, with local brands being offered in their respective markets.

In the last five years, Walmart has opened new stores in this segment at a CAGR of approximately 0.82% per year. We expect that this trend will continue with new stores opening regularly, especially in Mexico and Central America.

For this segment, revenue was modeled based on an anticipated growth in number of stores and per square foot revenue. For the total number of stores, the current store count was increase by a historic CAGR of 0.82%. This was multiplied by the current average square footage per store to achieve an estimate for the total square footage for each forecasted year. Each years total was then multiplied by the average revenue per square foot from the last three years to arrive at the total segment revenue for that year of the forecast.

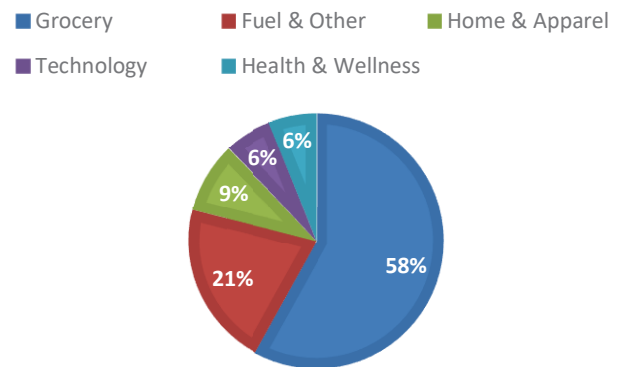
Sam's Club

Sam's Club is a membership warehouse and wholesaler. The membership fees that appear on the income statement are generated by this segment. Sam's Club offers members two different membership options; the basic Plus membership which currently costs \$45 as well as the more expensive Club Membership which currently sells for \$100. The Club membership grants certain benefits to holders such as cash back and free shipping.

Sam's Club offers merchandise in five categories: grocery, fuel & other, home & apparel, technology, and health & wellness.

2018 SAM'S CLUB REVENUE (EXCLUDING MEMB FEES)

Source: Walmart 10K

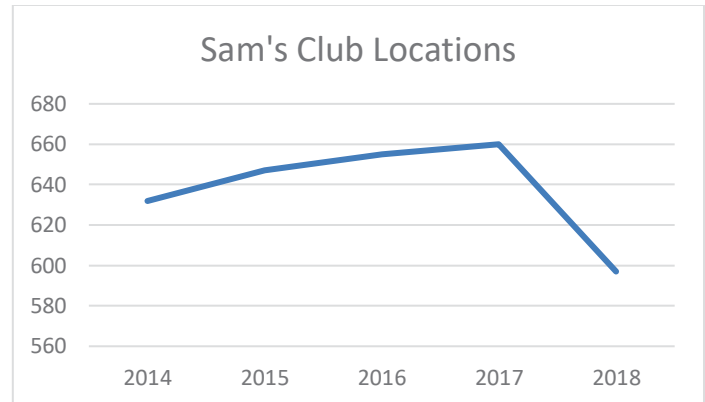


Source: Walmart 10K

The total revenue that is generated by this segment has accounted for around 12% of Walmart's gross revenue for each of the last 5 years. Sam's Club stores have an average square footage of 134,000.

Walmart operates 597 Sam's Club stores as of the beginning of 2018. This is a decrease from the 2017 total of 660 stores. These closures are discussed in detail in the recent developments section. However, prior to this decrease, the total number of Sam's Club stores had increased each year.

Sam's Club Locations



Source: Walmart 10K

Therefore, we are expecting that the total number of Sam's Club stores will grow in the future, although at a rate that is substantially lower than the previous growth rate.

For the forecasted years, we have an increase of 0.5% in total stores each year. This total store number is then translated into total square feet and multiplied by the FY2017 average revenue per square feet to arrive at each year’s segment revenue.

RECENT DEVELOPMENTS

2019 Q2 Results and Guidance

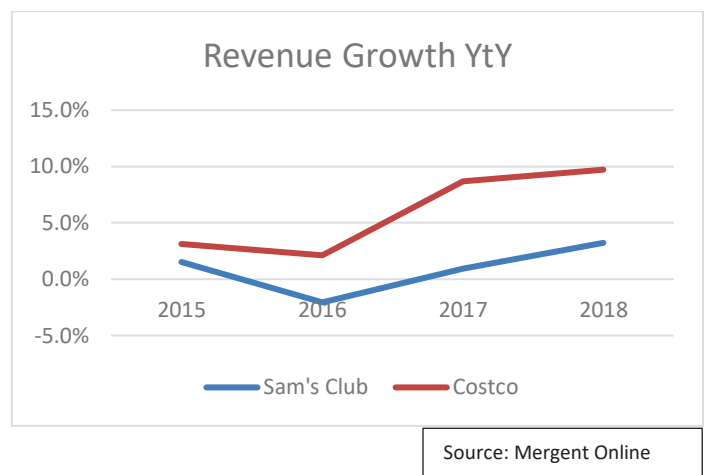
On August 16th, 2018, management conducted an earnings call to provide results and guidance concerning the fiscal year 2019 Q2. During this call, management release updated estimates for 2019, most of which were positive for the company. First, the adjusted EPS for the quarter was \$1.29 which represents a 19% increase from the previous year. Also, full year adjusted EPS was moved to \$4.90 to \$5.05. If this EPS is correct it would represent an increase from 2018’s adjusted EPS which came in at \$4.42. Second, Sam’s Club comp gain was 5% excluding fuel sales. We take this as a positive indication that the store closing and repositioning that is described in the following section is trending in a positive direction. Third, management announced that U.S. ecommerce sales increased 40% for the second consecutive quarter. This was mostly driven by Walmart.com and online grocery sales. This may be the most significant piece that came out of the call as management’s indications for future growth have been in the area of ecommerce as opposed to the previous growth strategy of adding additional stores.

Sam’s Club Positioning

In January of 2018, Walmart closed 63 Sam’s Clubs stores across the U.S. This included a reduction of employees by around 10,000. Per Walmart’s management, this is the result of a change in strategy with the aim of attracting higher income customers. In addition to the closing of stores, Sam’s Club intends to stock higher end merchandise and removing tobacco products from some stores. The stores that were closed were lower performing stores that had been operating in a too close proximity to a Walmart Supercenter or were in lower income areas.

Management has announced that several of the closed stores will be converted into distribution centers with a goal of improving delivery speed from digital orders. Management also indicated that the store closings represented a one-time event and are not part of a larger trend of closing significant numbers of Sam’s Club stores in the future.

This move is seen as a response to the higher revenue growth rates that Costco has generated in the past. By closing underperforming stores, Walmart hopes to extract more growth from the Sam’s Club segment. ³



International Omni-Channel Integration

Walmart’s management has signaled a strong intent to invest in providing their customers with an omni-channel purchasing experience. To this end, Walmart has made several recent investments to improve their last-mile delivery capabilities internationally in addition to the repurposing of various domestic locations to serve as distribution centers.

In August 2018, Walmart announced a \$2B investment in Flipkart, which will result in them owning around 77% of the company having spent \$16B in total.⁴ The remaining portion of Flipkart is owned by the founder and various institutional investors. This is Walmart’s largest ever acquisition. Flipkart is an Indian company that provides an ecommerce app and website to Indian customers. They also own a mobile payment service. Flipkart does not currently operate at a profit and is expected to continue to

generate losses over the next several years. Further, concerns have been raised regarding Flipkart’s current supply chain and logistic abilities and if they are able to increase to scale. The size and uncertainty of this deal is concerning due to its unknown impact on future cash flows. The deal is expected to reduce current year EPS \$0.25 - \$0.30. However, we feel that this purchase has medium to long term value for Walmart, while they have paid a considerable amount to scale up operations in India, that market is expected to grow from \$30B to \$200B in the next decade, and Walmart has a strong position to capture a large portion of that growth.

In August 2018, Walmart increased their investment in New Dada from the original \$50MM that they invested in 2016 by \$320MM. New Dada operated in China and offers customers the ability to place orders through an app as well as receive 2-hour delivery in select areas.

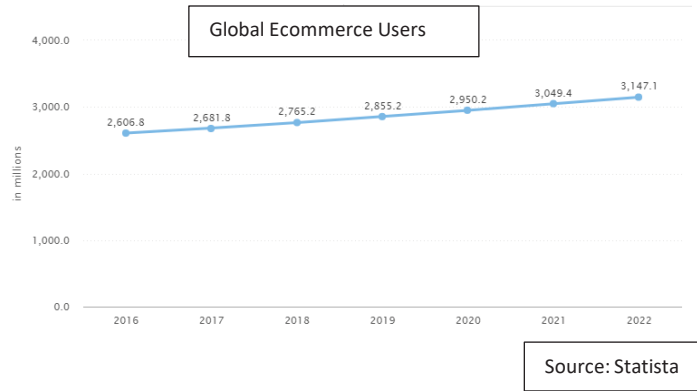
In September 2018, Walmart announced the acquisition of Cornershop Inc. for \$225MM. Cornershop is an on-demand delivery company that operates in Mexico and Chile. Note that Mexico has the largest number of Walmart locations outside of the U.S.

The spending that Walmart has done to improve its omni-channel offerings has come concurrently with large share buyback programs which are also expected to continue. This has led to an increase in leverage overall. While Walmart retains its AA rating from S&P, their outlook was lowered to negative following the Flipkart deal.

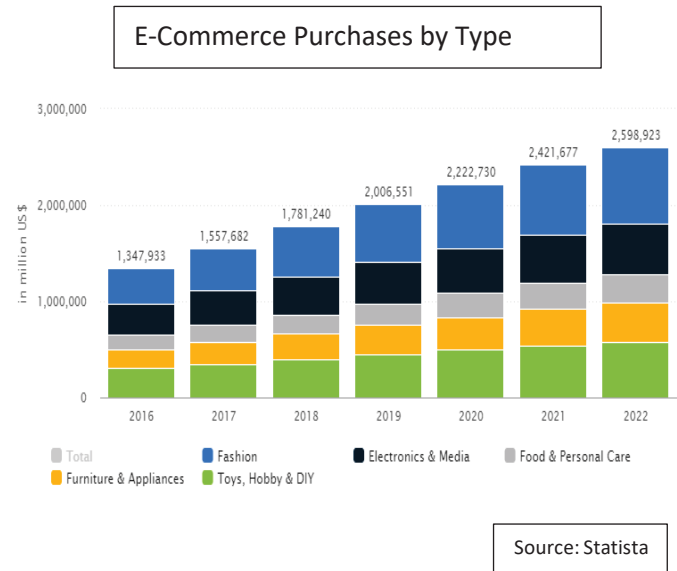
INDUSTRY TRENDS

Competing in Ecommerce

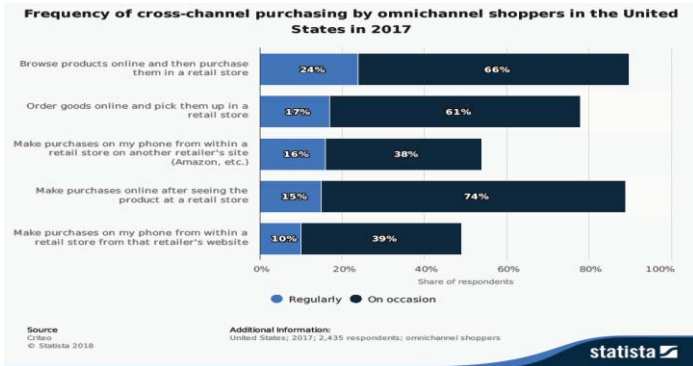
Traditional brick-and-mortar retailers are investing heavily to increase their ability to compete in the ecommerce space with good reason. The total number of users that are purchasing goods through this channel has increased rapidly and the the growth is expected to continue to the near future. Projections show an expected CAGR of 3.3% through 2022.



This growth in users translates into a predicted growth in revenue for this segment. Ecommerce is expected to see growth across all product types from highly perishable groceries to large, infrequent purchases, such as furniture and appliances.



This growth is expected to come at the expense of traditional merchandise outlets, which increases the necessity of companies in this sector to reach these customers. Also, this reduces the fear of spending on projects that would result in cannibalization of existing revenue.



Walmart notes in their 2017 10K that customers who shop in-store and then become ecommerce customers spend nearly twice as much as they did previously, further incentivizing investment in this area. As opposed to Amazon, Walmart does not charge a membership fee for online use. Instead, Walmart offers free store pickup or a free two-day delivery for purchases over \$35. For smaller purchases, a fee of \$5.99 is applied. This is an area in which we expect to see changes as competitors adjust their fee structures and last-mile delivery becomes more efficient.

All Inclusive Shopping Experience

In order to convince customer to continue to shop at their physical locations, supercenter operators such as Target and Walmart are partnering with third-party service providers in order to present customers with a one-stop shopping experience. These vendors provide customers with services that is outside of the superstore’s core areas. For example, CVS has partnered with Target in order to operate over 1,500 store-within-a-store locations. Another example is Walmart’s partnership with PetIQ in May of 2018 in order to open veterinary clinics within their stores.

Rising Worker Benefits

With unemployment at or below 4% nationally for the recent past, retailers have been forced to increase worker incentives in order to attract and retain their workforce.

This has come in higher wages being paid to workers. For example, in January of 2018, Walmart committed to a minimum hourly rate of \$11, an 11% increase, for all

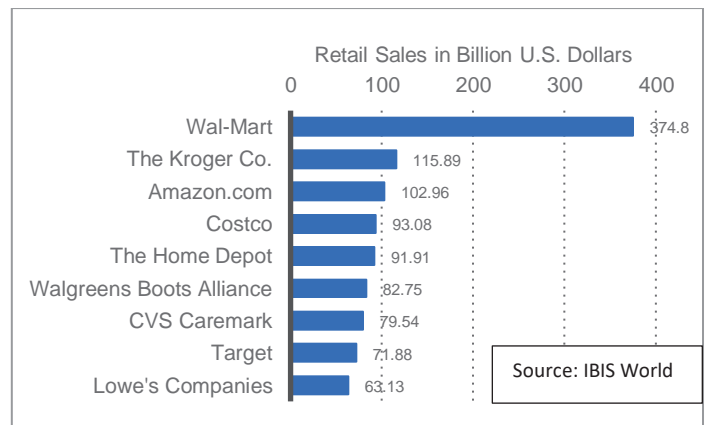
associates as well as a decreased time before employees are eligible for bonuses. This reflects similar increases by Target to \$11 per hour and Costco to \$13 per hour. Costco further raised its starting rate to \$14 per hour as of June 2018. Target has also announced planned future increases in wages, with an expectation of \$15 per hour by 2020.⁵

In addition to higher wages, employers have begun to offer various other incentives to employees. Walmart announced in June of 2018 that it would subsidize the cost for college tuition for U.S. workers. Our model increases the SG&A expenses that Walmart pays as a percent of sales in the first forecasted year and remains consistent after that. If additional labor costs do appear, the model may be overvaluing the company.

As long as the labor market in the U.S. remains tight, the industry can expect to see higher costs in terms of wages and other employee benefits as companies compete with each other and outside employers for labor.

MARKETS AND COMPETITION

Walmart competes in the retail sector both in physical locations as well as in ecommerce. The retail market is mature and highly fragmented. Walmart is the largest (by revenue) company in this sector, and accounts for around 7% of the market share. Together, the top 5 companies in this sector account for around 17% of the market share.



This sector is dependent on consumer confidence as individual consumers account for around 90% of all retail sales. As consumer confidence increases, the amount and quality of their purchases also increases, allowing for revenue growth and higher margins.

Given the variety and complexity of the retail market, it is useful to view some of the various sub-sectors that Walmart competes in.

Warehouse Clubs and Supercenters

This sector includes large stores that sell a wide variety of consumer goods including groceries. The warehouse clubs sell bulk items at a large discount to members. This is a mature sector with few competitors and a high barrier to entry. New entrants into this sector would need significant start-up costs in order to replicate the large store sizes of existing companies. Further, new entrants would face the challenge of establishing distribution networks that are sufficient to stock such large stores.

As opposed to the retail sector at large, where individual consumers account for almost all of the revenue, the warehouse and supercenter sector sees a significant portion of their revenue, 41%, come from businesses. Therefore, this sector is dependent on both consumer per capita disposable income as well as corporate profits. Companies in this sector are able to compete with other retail sectors on price due to the scale of their operations.

Walmart competes in this sector through their supercenters and Sam's Club locations. Walmart is the dominant company in this field, accounting for 71.7% of market share.⁷

Department Stores

This sector consists of general merchandise vendors. Companies in this sector sell products ranging from high end to discount merchandise. This sector is in decline and has a high competition level.

This sector has experienced a declining number of competitors in recent years as major companies have

begun to exit to pursue higher margins in other sectors. The sector is expected to decline in terms of total sales around 3% per year for the next ten years with significant numbers of store closings. The sector is facing strong competition from ecommerce sites and has yet to find a way to hold their current market share.

Walmart competes in this sector with their general discount stores. They account for around 11% of the market share of this sector.⁸

Supermarkets & Grocery

This sector includes stores that provide general lines of food products as well as fresh meats, fruits, dairy, and vegetables to consumers. This is a mature industry with a low level of concentration. The sector is dependent on consumer per capita income, which effects whether consumers choose to make purchases of private-label or premium brands.

This sector is expected to shift in order to accommodate millennial consumers' healthier food preferences. This will lead to increased sales for companies that can offer fresher, lower cost items. Further, the rise of millennial consumer's buying power will increase the competitive pressures felt by the sector from online grocery options.

Walmart accounts for 2.6% of the market share in this sector through their Neighborhood Market style stores. Note that this does not include the groceries that Walmart sells through their supercenters or Sam's Club.⁹

Ecommerce and Online Auctions

This is a growth sector with a low barrier to entry and high competition. This sector is comprised of companies that sell merchandise to consumers online, either through websites or apps. The sector is expected to remain in a growth phase through at least the next five years with an anticipated annual growth rate of 13%.¹⁰ This sector's growth is expected to mostly come at the cost of revenue from traditional brick-and-mortar retailers. The sector is dependent on the continued growth of internet and device

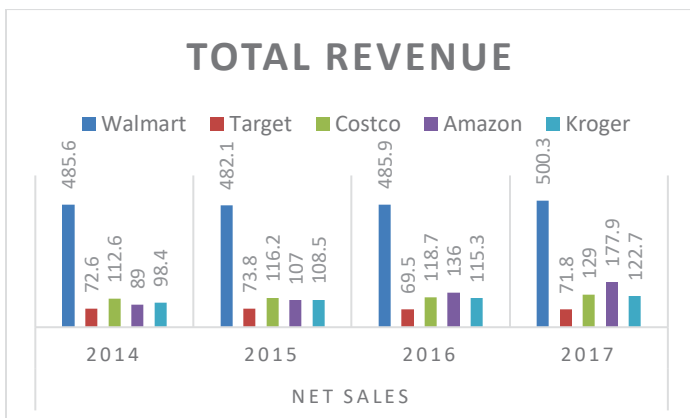
availability and the continued adoption of online shopping by all segments of consumers.

Companies that are in the ecommerce space will need to contend with continuous new competitors of all sizes. With low barriers of entry, even small retailers are able to compete directly with much larger companies. In response, larger firms have begun deploying advanced technologies in their warehouses and along their supply chain in order to increase efficiency and decrease human capital requirements. Additionally, the larger players have an advantage with delivery through their own capabilities or bulk deals with USPS and other delivery services.

Walmart competes in this segment through their Walmart.com and other websites. They account for 3.5% of the market share.

Peer Comparisons

While none compare with Walmart in terms of revenue and variety, Walmart has several competitors across its various lines of business.



Source: FactSet

As can be seen from the chart below, Walmart has a net profit that is well in line with its competitors. Target enjoys the highest net profit percentage. Looking at price to book value, Walmart is again in line with its competitors. Walmart has a high LTM P/E ratio that is expected to fall to a more industry normal 22.4 over the next twelve months due to expected cash flow loss from the Flipkart purchase.

Company	Net Profit	P/E(LTM)	P/E (NTM)	P/BV
Walmart	1.97%	60.8	22.4	4.04
Target	4.07%	15.3	15.6	3.37
Costco	2.21%	33.7	30.3	7.98
Amazon	1.71%	156	181	20.43
Kroger	1.54%	7.2	14.2	3.68

Source: FactSet

Amazon

Amazon is an online retail shopping service. The company had \$178B in revenue in 2017 and is an estimated revenue for 2018 of \$235B. This growth company has seen a remarkable 23% annual growth in revenue in the last five years. Amazon currently commands an astronomical P/E ratio of 156. The company collects revenue from not only providing its own online to offline services, but also hosting third party sellers on its website and collects fees. Further, Amazon also provides cloud computing services to businesses which account for around 10% of total revenue.¹³

Amazon competes with Walmart in the ecommerce space. Amazon is the market leader in this segment with 36.1% market share combined from amazon.com, woot.com, and zappos.com.

Kroger

Kroger is an American grocer that competes with Walmart in the supermarkets and grocery segment. They operate 2,782 supermarkets throughout the United States.¹⁴ Kroger also owns 37 manufacturing facilities where they produce private-label goods. They had sales of \$122B in 2017 and are expected to have the same amount in 2018. They have around 16% of the total U.S. market share for this segment.

Kroger also draws a small amount of its income from jewelry stores, food production, data analytics services and digital coupon services.

Like Walmart, Kroger is investing in online grocery ordering with in-store pick up and delivery options. Their 2017 Annual Report boasts of a 90% increase in their digital revenue.

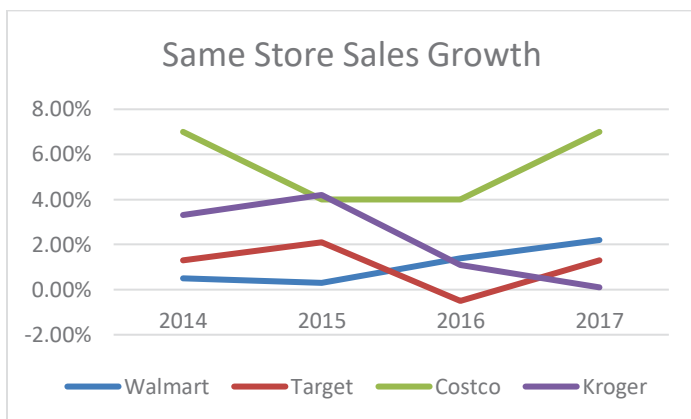
Target

Target is an American department store that operates general merchandise stores. The company also operates supercenter style stores. In total, Target operates 1,802 stores in the U.S. Target had revenue of \$71B in 2017 and is expected to have revenues of \$74B in 2018.¹¹ Target has a P/E ratio of 15.4, which is considerably lower than Walmart’s ratio of 54.4.

Target competes with Walmart in the department store sector where it holds the largest market share at 36%. Target also competes with Walmart in the supercenter sector with its SuperTargets, although the company stopped opening these types of stores in 2010. Similar to Walmart, Target is expanding into ecommerce which accounted for around 5% of their total sales in 2017, compared with Walmart’s 3%.

Costco

Costco is a membership wholesaler that operated internationally with 514 stores in the U.S. as well in stores in 10 other countries. Costco had revenue of \$129B in 2017 and is expected to have revenues of \$138B in 2018.¹² Costco has a P/E ratio of 34.5.



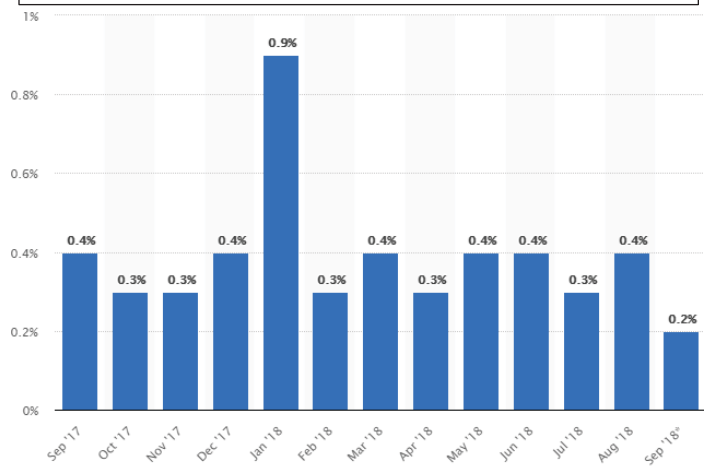
Costco competes with Walmart in the Warehouse Club segment, directly competing with the Sam’s Club segment. Compared to this segment only, Costco is larger with revenue 2.2x higher than Sam’s Club in 2017. Costco also maintains a higher average customer income than Sam’s Club, an area that Walmart’s management has identified as a priority.

ECONOMIC OUTLOOK

Disposable Income

As disposable income increases, so does the total revenue for companies in the retail sector. This is due to consumers shopping more frequently, purchasing more when they do shop, and purchasing more expensive premium products. Walmart may not capture this trend as effectively as Target or Costco as consumers with additional funds may also choose to “trade-up” to a more affluent brand. However, we expect that these losses would be mitigated by the lowest income shoppers increasing their purchase size more dramatically than middle class shoppers, who were already able to make all the day-to-day purchases they required.

Monthly Increase in US Disposable Income



Source: Statista

Disposable income has increased steadily over the last few years. 2018 has proven to be a particularly strong year for workers’ wages with the August report showing a 2.9% increase from August of 2017. We expect to see this trend to continue with wage growth outpacing inflation for most workers.

Oil Prices

Walmart and other companies that operate similar business are affected by changes in oil prices in two,

contradictory ways. First, some Walmart stores and Sam’s Clubs stores sell fuel directly to consumers. These sales are reported as part of the total revenue for each segment. Therefore, as the price of gasoline and diesel fuel falls, so too will the total revenue for the segment decrease. For the fiscal year that ended in January 2018, these sales accounted for around 8% of the total revenue for the Sam’s Club segment.

The other impact that changes in oil prices have on Walmart’s financials comes from the cost to the company for fuel for their trucking operations. Walmart owns and operates their own fleet of over 6,000 trucks. As fuel prices decrease, Walmart realizes an increase on their margins.

Prices				
	2016	2017	2018	2019
WTI Crude Oil (dollars per barrel)	43.33	50.79	67.03	67.36
Brent Crude Oil (dollars per barrel)	43.74	54.15	72.84	73.68
Gasoline (dollars per gallon)	2.15	2.42	2.76	2.82
Diesel (dollars per gallon)	2.31	2.65	3.17	3.1

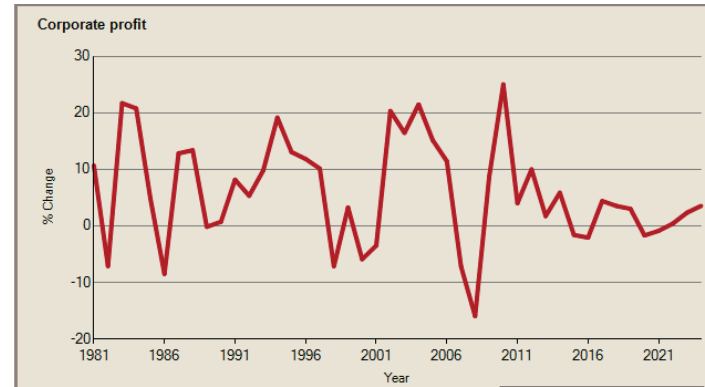
Source: EIA Estimates

We expect that the price of oil will increase slightly over the next year. Further out, we expect that oil prices will continue to increase slightly each year. However, the impact of oil prices on shipping costs should diminish each year as Walmart continues their transition to an entirely alternative power fleet by 2028.

Corporate Profits

As wholesalers to other businesses, especially through their Sam’s Club segment, Walmart stands to gain from increasing corporate profits. Corporate profits are expected increase across the forecast period. The annualized rate of growth expected over the next five

years is 0.6%. This is a lower rate of growth than has been experienced in the recent past, however, expected rate hikes are likely to diminish margins for companies that are currently borrowing at a higher rate than they have previously.



Source: IBIS World

CATALYSTS FOR GROWTH

Walmart will see growth if they are able to successfully grow their ecommerce business both domestically and internationally. Domestically, Walmart needs to utilize their current properties in order to reduce underperforming or redundant stores and repurpose these properties into distribution centers that will give their supply chain a competitive edge in distribution of online to offline orders. Internationally, the company has made large investments in the area, however, they must beat the near-term expectation of reduced cash flows and show a higher than expected user adoption and sales increase, especially in India to justify the large investments.

INVESTMENT POSITIVES

- Walmart has made strong investments in a growing area of retail, ecommerce, not only domestically, but internationally as well.
- Walmart’s current portfolio of property gives it key advantages in terms of distribution and last mile delivery.
- Recent upticks in wages and consumer confidence translate into higher per visit spending by consumers who purchase more and higher quality products.

INVESTMENT NEGATIVES

- Uncertainty surround the value of recent investments by Walmart especially internationally.
- Increases in the price of oil, potentially due to geopolitical unrest or increased demand abroad, could reduce operating margins that have been favorable for Walmart in recent years.
- Declining consumer interest in shopping at brick and mortar stores decreases the value of one of Walmart's greatest assets, their vast retail square footage.
- Increases in worker pay and other benefits may be needed to compete for a workforce in a tight labor market.

VALUATION

For this report, three models were created to provide an estimate of value. The Relative P/E model returned a value of \$98.40. We feel that this is a fair assessment of the value given the estimated 2019 & 2020 EPS that were used in the model. This model highlights the high P/E that Walmart currently has compared to its traditional brick-and-mortar competitors. We do feel that this model has the price slightly too low due to the lack of inclusion of Walmart's ecommerce competitors in the model which would have pushed the value up to closer to our target price range. The ecommerce competitors were not included as the stock value and P/E ratio of these companies, notably Amazon, are outliers and would skew the results of the model. None the less, the model fails to completely capture that aspect of Walmart's business, which will be of increasing importance in the future.

The Discount Dividend Model was also used for this valuation and returned a price of \$105.69. Walmart pays dividends to shareholders that have increased on a rigid schedule. The company has historically raised the dividend by \$0.04 per year and the models continues this pattern.

Finally, a discount cash flow model was built to value Walmart and that model returned a value of \$114.48. We

feel that this is the most accurate of the models and provides a good estimate of the company's value.

For the creation of the DCF model, many assumptions were made. Several of the most important are:

- The recent closings of around 10% of all Sam's Club locations was a one-time event and the total number of club locations will not continue to decrease. Further, there will be new Sam's Clubs opened each year, albeit at a much slower rate than has occurred in the past. Going forward, the growth rate for Sam's club stores is $\frac{1}{2}$ the CAGR of previous store openings, or 0.5%, as the company looks to open stores in more affluent areas.
- Recently, Walmart has seen a lower spending on COGS relative to total sales. The model assumes that this ratio will return to closer to a historic norm over the forecasted period. In 2017, Walmart reported COGS as 72.5% of revenue. The model uses 73% across all forecasted years. If Walmart is able to sustain or even lower their COGS from 2017, their cash flows will be significantly higher than modeled.
- Recent increases in SGA as a portion of sales, are being held consistent from 2018 levels through the forecast period. The recent uptick was attribute to an increase in employee wages and benefits. The model assumes that there are no further large changes in this expense. Should the tight labor market continue, SGA costs could rise as well.
- CapEx spending is forecasted with management guidance of \$11B for the 2018 and grown at 2% for the forecasted period. As Walmart's Capex sending shifts from opening stores to increasing ecommerce capabilities, this spending may change as well.
- Growth in ecommerce sales are expected to match the decrease in sales that Walmart would otherwise experience from opening additional stores. If this ratio turns out to be incorrect, the model will be showing revenue that is too high or

low depending on how much net market share Walmart is able to maintain, lose, or grow.

- The marginal tax rate used in the model is 22.8% which reflects the current Federal rate plus the state rates that Walmart has historically had to pay.
- Same store sales are calculated off of the total square footage present for each segment. This amount is a historic average except for Sam's Club, where the 2017 amount is used in all forecasted years, to account for the recent increase caused by the closing of unprofitable stores.

KEYS TO MONITOR

Looking forward, we are considering how much growth Walmart can find in the ecommerce space. This includes how well they are able to grow revenue with a slower rate of store openings as well as if Walmart is able to take market share from Amazon and other competitors.

Also, we are looking to see how well Walmart is able to adjust its grocery businesses to meet the demands of the rising buying power of the millennial generation. By providing these consumers with omni-channel services with which to purchase the lower cost, healthier options that they desire, Walmart can position itself favorably with the largest current population block.

Finally, we want to see how well Walmart is able to maintain revenue once the economic conditions turn less favorable. While there is no doubt that shoppers will continue to utilize Walmart regardless of economic conditions, how well the store is able to continue to maintain the same levels of per consumer spending.

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Walmart
Revenue Decomposition
In Millions

<i>Fiscal Years Ending Jan. 31</i>	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Revenue	478614	481317	495761	517537	527794	538298	549056	560074
Walmart US	298378	307833	318477	336673	345616	354796	364221	373895
Walmart International	123408	116119	118068	121474	122465	123463	124469	125484
Sam's Club	56828	57365	59216	59390	59714	60039	60366	60695
Walmart US	62%	64%	64%	65%	65%	66%	66%	67%
Walmart International	26%	24%	24%	23%	23%	23%	23%	22%
Sam's Club	12%	12%	12%	11%	11%	11%	11%	11%
Walmart US								
Grocery	167092	172386	178347	188537	193545	198686	203964	209381
Health and Wellness	32822	33862	35032	37034	38018	39028	40064	41128
General Merchandise	98465	101585	105097	111102	114053	117083	120193	123385
Walmart US								
Grocery	56%	56%	56%	56%	56%	56%	56%	56%
Health and Wellness	11%	11%	11%	11%	11%	11%	11%	11%
General Merchandise	33%	33%	33%	33%	33%	33%	33%	33%
Sam's Club								
Grocery and Consumables	59%	59%	58%	58%	58%	58%	58%	58%
Fuel and Other Categories	20%	20%	21%	21%	21%	21%	21%	21%
Home and Apparel	9%	9%	9%	9%	9%	9%	9%	9%
Tech, Office and Entertainment	7%	6%	6%	6%	6%	6%	6%	6%
Health and Wellness	5%	6%	6%	6%	6%	6%	6%	6%
Sam's Club								
Grocery and Consumables	33529	33845	34345	34446	34634	34823	35012	35203
Fuel and Other Categories	11366	11473	12435	12472	12540	12608	12677	12746
Home and Apparel	5115	5163	5329	5345	5374	5404	5433	5463
Tech, Office and Entertainment	3978	3442	3553	3563	3583	3602	3622	3642
Health and Wellness	2841	3442	3553	3563	3583	3602	3622	3642

Walmart Stores Inc (WMT)

Income Statement

In Millions of USD except per share

	01/31/2016	01/31/2017	01/31/2018	01/31/2019	01/31/2020	01/31/2021	01/31/2022	01/31/2023
Net sales	478614	481317	495761	512881	523113	533591	544323	555316
Membership & other income	3516	4556	4582	4656	4682	4707	4733	4758
Total revenues	482130	485873	500343	517537	527794	538298	549056	560074
COGS (w/o depreciation)	351530	351176	362867	377802	385290	392958	400811	408854
Gross Profit	130600	134697	137476	139735	142504	145341	148245	151220
Sales, General, & Admin	97041	101853	106510	110235	112420	114658	116949	119296
Depreciation & Amortization	9454	10080	10529	9924	10025	10127	10231	10335
Operating income (loss)	24105	22764	20437	19575	20059	20556	21066	21589
Interest Expense	2548	2367	2330	1990	2160	2178	2198	2219
Interest income	81	100	152	152	286	245	270	196
Interest income (expense), net	-2467.00	-2267.00	-2178.00	-1837.77	-2008.21	-1891.91	-1952.60	-1948.94
Loss on extinguishment of debt	-	-	-3136	-	-	-	-	-
Income (loss) from continuing operations before income taxes	21638	20497	15123	17737	18051	18664	19113	19640
Provision (benefit) for income taxes	6558	6204	4600	4044	4116	4255	4358	4478
Consolidated net income (loss) with MI	15080	14293	10523	13693	13935	14408	14755	15162
Minority Interest	386	650	661	548	557	576	590	606
Net income	14694	13643	9862	13146	13378	13832	14165	14556
Weighted average shares outstanding - basic	3207	3101	2995	2,928	2,859	2,783	2,711	2,644
Net income (loss) per share - basic	4.58	4.40	3.29	4.49	4.68	4.97	5.22	5.51
Dividend Per Share	2	2.04	2.08	2.12	2.16	2.2	2.24	2.28

Walmart Stores Inc (WMT)
Balance Sheet
In Millions of USD except per share

	01/31/2016	01/31/2017	01/31/2018	01/31/2019	01/31/2020	01/31/2021	01/31/2022	01/31/2023
Cash & cash equivalents	8705	6867	6756	12727	10898	11998	8695	10319
Receivables, net	5624	5835	5614	6507	6636	6769	6904	7042
Inventories	44469	43046	43783	44627	44847	45072	45302	45536
Prepaid expenses & other current assets	1441	1941	3511	2015	2055	2095	2137	2180
Total current assets	60239	57689	59664	65876	64436	65934	63037	65078
Gross Property, Plant & Equipment	176958	179492	185154	196154	207374	218818	230492	242398
Less: accumulated depreciation	66787	71782	77479	87403	97429	107556	117787	128122
Net Property, Plant, & Equipment	110171	107710	107675	108751	109945	111262	112705	114276
Property under capital lease & financing obligations, net	6345	6468	7143	7214	7294	7381	7477	7581
Goodwill	16695	17037	18242	18242	18242	18242	18242	18242
Other Non Current Assets	6131	9921	11798	11798	11798	11798	11798	11798
Total Non Current Assets	139342	141136	144858	146005	147279	148683	150221	151897
Total Assets	199581	198825	204522	211881	211715	214617	213259	216975
Short-term borrowings	2708	1099	5257	2126	2142	2157	2174	2190
Accounts payable	38487	41433	46092	49219	50195	51194	52217	53265
Accrued liabilities	19607	20654	22122	23409	24423	25482	26590	27748
Accrued income taxes	521	921	645	498	506	524	536	551
Long-term debt due within one year	2745	2256	3738	3733	1914	3336	607	2934
Capital lease & financing obligations due within one year	551	565	667	1039	987	942	843	696
Total Current Liabilities	64619	66928	78521	80024	80167	83635	82967	87385
Long-term debt	38214	36015	30045	31865	32131	32419	32730	33065
Long-term capital lease obligations	5816	6003	6780	10275	9761	9316	8337	6883
Other liabilities	7321	9344	8354	8909	9086	9267	9452	9642
Total Non Current Liabilities	51351	51362	45179	51049	50978	51002	50519	49590
Total Liabilities	115970	118290	123700	131073	131144	134637	133486	136974
Common Stock & Additional excess of par value	2122	2676	2943	4290	5153	5153	5153	5153
Retained earnings (accumulated deficit)	90021	89354	85107	83745	82646	82055	81848	82076
Accumulated other comprehensive income (loss)	-11597	-14232	-10181	-10181	-10181	-10181	-10181	-10181
Total Walmart shareholders' equity	80546	77798	77869	77854	77618	77027	76819	77048
Noncontrolling interests	3065	2737	2953	2953	2953	2953	2953	2953
Total equity	83611	80535	80822	80807	80571	79980	79772	80001
Total Equity & Liabilities	199581	198825	204522	211881	211715	214617	213259	216975

As Reported Annual Cash Flow

Report Date	01/31/2014	01/31/2015	01/31/2016	01/31/2017	01/31/2018
Consolidated	Yes	Yes	Yes	Yes	Yes
Scale	Millions	Millions	Millions	Millions	Millions
Consolidated net income (loss)	16695	17099	15080	14293	10523
Loss (income) from discontinued operations, net of income taxes	-144	-285	-	-	-
Income (loss) from continuing operations	16551	16814	15080	14293	-
Depreciation & amortization	8870	9173	9454	10080	10529
Deferred income taxes	-279	-503	-672	761	-304
Loss on extinguishment of debt	-	-	-	-	3136
Other operating activities	938	785	1410	206	1210
Receivables, net	-566	-569	-19	-402	-1074
Inventories	-1667	-1229	-703	1021	-140
Accounts payable	531	2678	2008	3942	4086
Accrued liabilities	103	1249	1303	1137	928
Accrued income taxes	-1224	166	-472	492	-557
Net cash flows from operating activities	23257	28564	27389	31530	28337
Payments for property & equipment	-13115	-12174	-11477	-10619	-10051
Proceeds from the disposal of property & equipment	727	570	635	456	378
Proceeds from disposal of certain operations	-	671	246	662	1046
Purchase of available for sale securities	-	-	-	-1901	-
Business acquisitions, net of cash acquired	-15	-	-	-2463	-375
Other investing activities	105	-192	-79	-122	-58
Net cash flows from investing activities	-12298	-11125	-10675	-13987	-9060
Net change in short-term borrowings	911	-6288	1235	-1673	4148
Proceeds from issuance of long-term debt	7072	5174	39	137	7476
Repayments of long-term debt	-4968	-3904	-4432	-2055	-13061
Premiums paid to extinguish debt	-	-	-	-	-3059
Dividends paid	-6139	-6185	-6294	-6216	-6124
Purchase of company stock	-6683	-1015	-4112	-8298	-8296
Dividends paid to & stock purchases of noncontrolling interest	-722	-	-	-	-
Dividends paid to noncontrolling interest	-	-600	-719	-479	-690
Purchase of noncontrolling interest	-	-1844	-1326	-90	-8
Other financing activities	-488	-409	-513	-255	-261
Net cash flows from financing activities	-11017	-15071	-16122	-18929	-19875
Effect of exchange rate changes on cash & cash equivalents	-442	-514	-1022	-452	487
Net increase (decrease) in cash & cash equivalents	-500	1854	-430	-1838	-111
Cash & cash equivalents at beginning of year	7781	7281	9135	8705	6867
Cash & cash equivalents at end of year	7281	9135	8705	6867	6756
Income taxes paid	8641	8169	8111	4507	6179
Interest paid	2362	2433	2540	2351	2450

Walmart Stores Inc (WMT)**Cash Flow Forecast**

In Millions of USD except per share

	2019E	2020E	2021E	2022E	2023E
Net Income	13146	13378	13832	14165	14556
Depreciation & Amortization	9924	10025	10127	10231	10335
Change in Account Receivable	-893	-129	-132	-135	-139
Change in Inventories	-844	-220	-225	-230	-235
Change in Pre-Paid Expense & Other	1496	-40	-41	-42	-43
Change in Accounts Payable	3127	975	999	1023	1048
Change in Accrued Liabilities	1287	1014	1060	1108	1158
Change in Income Tax Accrued	-147	9	17	13	15
Net Operating Cash Flow	27096	25012	25637	26132	26696
CapEx	-11,000	-11,220	-11,444	-11,673	-11,907
Change in Cap Lease Obligations	-71	-79	-87	-96	-104
Change in Other Non-Current Assets	0	0	0	0	0
Change in Goodwill	0	0	0	0	0
Net Investing Cash Flow	-11,071	-11,299	-11,532	-11,769	-12,011
Current Portion of Long Term Debt	-5	-1819	1422	-2729	2327
Change in Short Term Capital Lease Obligations	372	-52	-45	-99	-147
Change in Short Term Borrowing	-3131	16	16	16	17
Change in Long Term Capital Lease Obligations	3495	-514	-445	-979	-1454
Change in Long Term Debt	1820	266	288	311	335
Change in Other Non-Current Liabilities	555	177	181	185	190
Proceeds from ESOP	1347	862	0	0	0
Dividends	-6208	-6177	-6123	-6073	-6027
Repurchase of Common Stock	-8300	-8300	-8300	-8300	-8300
Total Financing Cash Flow	-10054	-15541	-13005	-17667	-13060
Beginning Cash	6756	12727	10898	11998	8695
Net Cash Flow	5971	-1829	1100	-3304	1625
Ending Cash	12727	10898	11998	8695	10319

Walmart								
Value Driver Estimation								
In Millions								
Fiscal Years Ending Jan. 31	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
NOPLAT Calculation								
Revenue	482130	485873	500343	517537	527794	538298	549056	560074
-COGS	351530	351176	362867	377802	385290	392958	400811	408854
-SGA	97041	101853	106510	110235	112420	114658	116949	119296
-Depreciation & Amortization	9454	10080	10529	9924	10025	10127	10231	10335
Operating Profit (Loss)	24105	22764	20437	19575	20059	20556	21066	21589
+ Implied Interest on Operating Leases	544	468	400	450	455	461	467	473
EBITA	24649	23232	20837	20025	20514	21016	21532	22062
Marginal Tax Rate	0.368	0.367	0.356	0.228	0.228	0.228	0.228	0.228
<i>Adjusted Taxes</i>								
Income Tax Provision	6558	6204	4600	4044	4116	4255	4358	4478
+Tax Shield on Interest Expense	938	869	829	454	493	497	501	506
-Tax on Interest Income	30	37	54	35	65	56	62	45
+Tax Shield on Operating Lease Interest	200	172	142	103	104	105	106	108
Less: Adjusted Taxes	7666	7208	5518	4566	4647	4801	4904	5047
Deferred Tax Liability	9055	10127	6048	5257	5350	5532	5665	5821
Previous Year Deferred Tax Liability	9415	9055	10127	6048	5257	5350	5532	5665
Change in Deferred Tax Liability	-360	1072	-4079	-791	93	182	133	156
Deferred Tax Assets	7202	7359	4096	3640	3704	3830	3922	4030
Previous Year Deferred Tax Assets	6449	7202	7359	5939	3640	3704	3830	3922
Change in Deferred Assets	753	157	-3263	-2299	64	126	92	108
Net Change in Deferred Tax Liabilities	-1113	915	-816	1509	29	56	41	48
NOPLAT	15870	16939	14503	16968	15896	16271	16669	17063
Invested Capital Computation								
Operating Current Assets								
Normal Cash	6509	6559	6755	6987	7125	7267	7412	7561
Accounts Receivable Net	5624	5835	5614	6507	6636	6769	6904	7042
Inventories	44469	43046	43783	44627	44847	45072	45302	45536
Other Current Assets	1441	1941	3511	2015	2055	2095	2137	2180
Operating Current Liabilities								
Accounts Payable	38487	41433	46092	49219	50195	51194	52217	53265
Accrued Income Taxes	521	921	645	498	506	524	536	551
Current Capital Lease & Financing Obligations	551	565	667	1039	987	942	843	696
Accrued Liabilities	19607	20654	22122	23409	24423	25482	26590	27748
Net Operating Working Capital	-1123	-6192	-9863	-14030	-15448	-16939	-18431	-19940
Net PPE	110171	107710	107675	108751	109945	111262	112705	114276
Long Term Assets								
PV of Operating Assets	17652	15180	12971	14618	14779	14956	15149	15361
Other Long Term Assets	6131	9921	11798	11798	11798	11798	11798	11798
Other Operating Assets	23783	25101	24769	26416	26577	26754	26947	27159
Long Term Liabilities								
Long Term Capital Lease Obligations	5816	6003	6780	10275	9761	9316	8337	6883
Other Long Term Liabilities	7321	9344	8354	8909	9086	9267	9452	9642
Other Operating Liabilities	13137	15347	15134	19185	18847	18583	17789	16525
Net Other Long Term Assets	10646	9754	9635	7231	7730	8171	9159	10634
Invested Capital	119693	111272	107447	101952	102227	102494	103432	104970
NOPLAT	15870	16939	14503	16968	15896	16271	16669	17063
-ΔIC	-5326	-8421	-3825	-5495	274	267	938	1538
FCF (NOPLAT -ΔIC)	21196	25360	18328	22463	15622	16004	15731	15525
NOPLAT	15870	16939	14503	16968	15896	16271	16669	17063
Begin IC	125020	119693	111272	107447	101952	102227	102494	103432
ROIC (NOPLAT/Begin IC)	12.69%	14.15%	13.03%	15.79%	15.59%	15.92%	16.26%	16.50%
Begin IC	125020	119693	111272	107447	101952	102227	102494	103432
ROIC - WACC	6.43%	7.89%	6.77%	9.53%	9.33%	9.65%	10.00%	10.24%
EP (Begin IC * (ROIC-WACC))	8041	9444	7535	10240	9512	9870	10252	10587

Walmart

Key Management Ratios

<i>Fiscal Years Ending Jan. 31</i>	2014	2015	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Liquidity Ratios										
Current Ratio = <i>Current Assets / Current Liabilities</i>	0.88	0.97	0.93	0.86	0.76	0.82	0.80	0.79	0.76	0.74
Current Ratio w/o Cash = <i>Current Assets w/o cash / Current Liabilities</i>	0.77	0.83	0.80	0.76	0.67	0.66	0.67	0.64	0.65	0.63
Quick Ratio = <i>Cur Assets - Inventory / Cur Liabilities</i>	0.24	0.28	0.24	0.22	0.20	0.27	0.24	0.25	0.21	0.22
Cash Ratio = <i>Cash + Marketable Securities/ Cur Liabilites</i>	0.10	0.14	0.13	0.10	0.09	0.16	0.14	0.14	0.10	0.12
Activity or Asset-Management Ratios										
Inventory Turnover= <i>COGS / Average Inventory</i>	7.98	8.09	7.91	8.16	8.29	8.47	8.59	8.72	8.85	8.98
Inventory Period = <i>365/ Inventory Turnover</i>	45.73	45.13	46.17	44.74	44.04	43.11	42.49	41.87	41.25	40.65
Asset Turnover = <i>Total Assets / Sales</i>	0.43	0.42	0.41	0.41	0.41	0.41	0.40	0.40	0.39	0.39
Financial Leverage Ratios										
Debt Ratio = <i>Total Debt / Total Assets</i>	0.22	0.23	0.21	0.19	0.17	0.17	0.16	0.17	0.16	0.17
Debt-to-Equity Ratio = <i>Total Debt / Total Equity</i>	0.56	0.53	0.49	0.48	0.42	0.44	0.42	0.45	0.42	0.45
Financial Leverage = <i>Total Assets/ Total Shareholders Equity</i>	2.52	2.37	2.39	2.47	2.53	2.62	2.63	2.68	2.67	2.71
Profitability Ratios										
Gross Profit Margins = <i>Sales - COGS / Sales</i>	24.82%	24.83%	27.09%	27.72%	27.48%	27.00%	27.00%	27.00%	27.00%	27.00%
Operating Margin = <i>Operating Income / Sales</i>	5.64%	5.59%	5.00%	4.69%	4.08%	3.78%	3.80%	3.82%	3.84%	3.85%
Net Profit Margin = <i>Net Profit/ Sales</i>	3.36%	3.37%	3.05%	2.81%	1.97%	2.54%	2.53%	2.57%	2.58%	2.60%
ROA = <i>Net Income / Total Assets</i>	7.83%	8.03%	7.36%	6.86%	4.82%	6.20%	6.32%	6.44%	6.64%	6.71%
ROE = <i>Net Income/ Shareholder Equity</i>	19.70%	19.04%	17.57%	16.94%	12.20%	16.27%	16.60%	17.29%	17.76%	18.19%
Payout Policy Ratios										
Dividend Yield = <i>Dividends per Share/ Share Price</i>		2.18%	3.01%	2.88%	2.31%	2.21%	2.12%	2.03%	1.94%	1.86%
Payout Ratio = <i>Dividends per Share / Earnings Per Share</i>		38.66%	43.67%	46.36%	63.22%	47.22%	46.17%	44.26%	42.87%	41.41%

Walmart Stores Inc (WMT)

Balance Sheet

In Millions of USD except per share

	01/31/2016	01/31/2017	01/31/2018	01/31/2019	01/31/2020	01/31/2021	01/31/2022	01/31/2023
Net sales	99.27%	99.06%	99.08%	99.10%	99.11%	99.13%	99.14%	99.15%
Membership & other income	0.73%	0.94%	0.92%	0.90%	0.89%	0.87%	0.86%	0.85%
Total revenues	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
COGS (w/o depreciation)	72.91%	72.28%	72.52%	73.00%	73.00%	73.00%	73.00%	73.00%
Gross Profit	27.09%	27.72%	27.48%	27.00%	27.00%	27.00%	27.00%	27.00%
Sales, General, & Admin	20.13%	20.96%	21.29%	21.30%	21.30%	21.30%	21.30%	21.30%
Depreciation & Amortization	1.96%	2.07%	2.10%	1.92%	1.90%	1.88%	1.86%	1.85%
Operating income (loss)	5.00%	4.69%	4.08%	3.78%	3.80%	3.82%	3.84%	3.85%
Interest Expense	0.53%	0.49%	0.47%	0.38%	0.41%	0.40%	0.40%	0.40%
Interest income	0.02%	0.02%	0.03%	0.03%	0.05%	0.05%	0.05%	0.03%
Interest income (expense), net	-0.51%	-0.47%	-0.44%	-0.36%	-0.38%	-0.35%	-0.36%	-0.35%
Loss on extinguishment of debt			-0.63%	0.00%	0.00%	0.00%	0.00%	0.00%
Income (loss) from continuing operations before income taxes	4.49%	4.22%	3.02%	3.43%	3.42%	3.47%	3.48%	3.51%
Provision (benefit) for income taxes	1.36%	1.28%	0.92%	0.78%	0.78%	0.79%	0.79%	0.80%
Consolidated net income (loss) with MI	3.13%	2.94%	2.10%	2.65%	2.64%	2.68%	2.69%	2.71%
Minority Interest	0.08%	0.13%	0.13%	0.11%	0.11%	0.11%	0.11%	0.11%
Net Income	3.05%	2.81%	1.97%	2.54%	2.53%	2.57%	2.58%	2.60%

Walmart Stores Inc (WMT)
Balance Sheet
In Millions of USD except per share

	01/31/2016	01/31/2017	01/31/2018	01/31/2019	01/31/2020	01/31/2021	01/31/2022	01/31/2023
Cash & cash equivalents	1.81%	1.41%	1.35%	2.46%	2.06%	2.23%	1.58%	1.84%
Receivables, net	1.17%	1.20%	1.12%	1.26%	1.26%	1.26%	1.26%	1.26%
Inventories	9.22%	8.86%	8.75%	8.62%	8.50%	8.37%	8.25%	8.13%
Prepaid expenses & other current assets	0.30%	0.40%	0.70%	0.39%	0.39%	0.39%	0.39%	0.39%
Total current assets	12.49%	11.87%	11.92%	12.73%	12.21%	12.25%	11.48%	11.62%
Gross Property, Plant & Equipment	36.70%	36.94%	37.01%	37.90%	39.29%	40.65%	41.98%	43.28%
Less: accumulated depreciation	13.85%	14.77%	15.49%	16.89%	18.46%	19.98%	21.45%	22.88%
Net Property, Plant, & Equipment	22.85%	22.17%	21.52%	21.01%	20.83%	20.67%	20.53%	20.40%
Goodwill	3.46%	3.51%	3.65%	3.52%	3.46%	3.39%	3.32%	3.26%
Other Non Current Assets	1.27%	2.04%	2.36%	2.28%	2.24%	2.19%	2.15%	2.11%
Total Non Current Assets	28.90%	29.05%	28.95%	28.21%	27.90%	27.62%	27.36%	27.12%
Total Assets	41.40%	40.92%	40.88%	40.94%	40.11%	39.87%	38.84%	38.74%
Short-term borrowings	0.56%	0.23%	1.05%	0.41%	0.41%	0.40%	0.40%	0.39%
Accounts payable	7.98%	8.53%	9.21%	9.51%	9.51%	9.51%	9.51%	9.51%
Accrued liabilities	4.07%	4.25%	4.42%	4.52%	4.63%	4.73%	4.84%	4.95%
Accrued income taxes	0.11%	0.19%	0.13%	0.10%	0.10%	0.10%	0.10%	0.10%
Long-term debt due within one year	0.57%	0.46%	0.75%	0.72%	0.36%	0.62%	0.11%	0.52%
Capital lease & financing obligations due within one	0.11%	0.12%	0.13%	0.20%	0.19%	0.17%	0.15%	0.12%
Total Current Liabilities	13.40%	13.77%	15.69%	15.46%	15.19%	15.54%	15.11%	15.60%
Long-term debt	7.93%	7.41%	6.00%	6.16%	6.09%	6.02%	5.96%	5.90%
Long-term capital lease obligations	1.21%	1.24%	1.36%	1.99%	1.85%	1.73%	1.52%	1.23%
Other liabilities	1.52%	1.92%	1.67%	1.72%	1.72%	1.72%	1.72%	1.72%
Total Non Current Liabilities	10.65%	10.57%	9.03%	9.86%	9.66%	9.47%	9.20%	8.85%
Total Liabilities	24.05%	24.35%	24.72%	25.33%	24.85%	25.01%	24.31%	24.46%
Total equity	17.34%	16.58%	16.15%	15.61%	15.27%	14.86%	14.53%	14.28%
Total Equity & Liabilities	41.40%	40.92%	40.88%	40.94%	40.11%	39.87%	38.84%	38.74%

Walmart

Weighted Average Cost of Capital (WACC) Estimation

Cost of Equity

30 year bond yield (US)	3.08%
Walmart Beta	0.7
MRP	4.8%
Cost of Equity	6.44%

Cost of Debt

Cost Debt (30 yr Bond)	3.990%
Marginal Tax Rate	23%
Cost of Debt Adjusted for Tax	3.08%

# of Shares outstanding (2017)	2,951,000,000.00
Current Share Price	\$95.73
MV Equity	\$282,499,230,000
MV Debt	\$2,860,000,000
PV of Operating Leases	\$12,971,447,151
Total	\$298,330,677,151
% Equity	95%
% Debt	5%
WACC	6.26%

Walmart*Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models*

Key Inputs:

CV Growth	2.50%
CV ROIC	16.50%
WACC	6.26%
Cost of Equity	6.44%

<i>Fiscal Years Ending Jan. 31</i>	2019E	2020E	2021E	2022E	2023E
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DCF Model

Discount Period	1	2	3	4	5
NOPLAT	16968	15896	16271	16669	17063
Invested Capital	101952	102227	102494	103432	
CAPEX	11000	11220	11444	11673	
Free Cash Flow	22463	15622	16004	15731	
Discount Rate	0.94	0.89	0.83	0.78	
CV				384866	
PV of Cash Flow	21139	13835	13338	314196	

Total Value of OPS**362509****EP Model**

NOPLAT	16968	15896	16271	16669	17063
Beginning IC	107447	101952	102227	102494	103432
EP	10240	9512	9870	10252	10587

CV

281434

Discount Rate

0.94 0.89 0.83 0.78

Present Value of EP

9637 8424 8226 228775

Total Value of OPS**362509**

Excess Cash

0

Value of debt

2860

Other LT Liabilities

8909

PV of Operating Leases

12971

ESOPs

1083

Minority Interests

2953

Net Value of other Liabilities & Assets

28777

Net Value of Company

333731

Shares outstanding

2995

Intrinsic Value as of 1/31/18

\$ 111.43

Intrinsic Value as of 9/1/18

\$ 114.48

Walmart

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

<i>Fiscal Years Ending Jan 31st</i>	2019E	2020E	2021E	2022E	2023E
Discount Period	1	2	3	4	5
EPS	\$ 4.49	\$ 4.68	\$ 4.97	\$ 5.22	\$ 5.51
Dividends	\$ 2.12	\$ 2.16	\$ 2.20	\$ 2.24	\$ 2.28
Discount Rate	0.94	0.88	0.83	0.78	
CV					\$ 120.55
PV	\$ 1.99	\$ 1.91	\$ 1.82	\$ 1.75	\$ 93.92

Key Assumptions

CV growth	2.5%
CV ROE	18%
Cost of Equity	6.44%

Intrinsic Value

As of 1/31/18	\$ 101.39
As of 9/1/18	\$ 105.69

Walmart*Relative Valuation Models*

Ticker	Company	Price	EPS		P/E		Est. 5yr		
			2019E	2020E	19	20	EPS gr.	PEG 19	PEG 20
TGT	Target	\$88.74	\$5.40	\$5.63	16.4	15.8	7.5	2.19	2.10
COST	Costco	\$241.46	\$7.09	\$7.73	34.1	31.2	12.0	2.85	2.61
KR	Kroger	\$32.37	\$2.12	\$2.27	15.3	14.3	6.7	2.28	2.13
Average					21.9	20.4		2.4	2.3
WMT	Walmart	\$95.73	\$4.49	\$4.68	21.3	20.5	4.2	5.1	4.9

Implied Value:

Relative P/E (EPS19) \$ 98.40

Relative P/E (EPS20) \$ 95.53

VALUATION OF OPTIONS GRANTED IN ESOP

Ticker Symbol	WMT
Current Stock Price	\$95.73
Risk Free Rate	3.08%
Current Dividend Yield	2.16%
Annualized St. Dev. of Stock Returns	38.80%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range 1	8,558,000	70.47	1.20	\$ 29.77	\$ 254,791,470
Range 2	24,153,000	66.69	1.80	\$ 34.30	\$ 828,542,104
Total	32,711,000	\$ 67.68	1.64	\$ 35.98	\$ 1,083,333,574

Effects of ESOP Exercise and Share Repurchases on Common Stock Balance Sheet Account and Number of Shares Outstanding

Number of Options Outstanding (shares):	32,711,000
Average Time to Maturity (years):	1.64
Expected Annual Number of Options Exercised:	19,909,006

Current Average Strike Price:	\$ 67.68
Cost of Equity:	6.44%
Current Stock Price:	\$95.73

	2019E	2020E	2021E	2022E	2023E
Increase in Shares Outstanding:	19,909,006	12,741,764	0	0	0
Average Strike Price:	\$ 67.68	\$ 67.68	\$ 67.68	\$ 67.68	\$ 67.68
Increase in Common Stock Account:	1,347,420,429	862,349,074	-	-	-
Change in Treasury Stock	8,300,000,000	8,300,000,000	8,300,000,000	8,300,000,000	8,300,000,000
Expected Price of Repurchased Shares:	\$ 95.73	\$ 101.90	\$ 108.46	\$ 115.44	\$ 122.88
Number of Shares Repurchased:	86,702,183	81,456,392	76,527,989	71,897,773	67,547,701
Shares Outstanding (beginning of the year)	2,995,000,000	2,928,206,823	2,859,492,195	2,782,964,206	2,711,066,433
Plus: Shares Issued Through ESOP	19,909,006	12,741,764	0	0	0
Less: Shares Repurchased in Treasury	86,702,183	81,456,392	76,527,989	71,897,773	67,547,701
Shares Outstanding (end of the year)	2,928,206,823	2,859,492,195	2,782,964,206	2,711,066,433	2,643,518,733

Present Value of Operating Lease Obligations (2018)

Fiscal Years Ending Jan. 31	Operating Leases
2019	1933
2020	1718
2021	1532
2022	1381
2023	1158
Thereafter	7644
Total Minimum Payments	15366
Less: Interest	2395
PV of Minimum Payments	12971

Capitalization of Operating Leases

Pre-Tax Cost of Debt	3.08%
Number Years Implied by Year 6 Payment	6.6

Year	Lease Commitment	PV Lease Payment
1	1933	1875.2
2	1718	1616.9
3	1532	1398.7
4	1381	1223.2
5	1158	995.0
6 & beyond	1158	5862.4
PV of Minimum Payments		12971.4

Present Value of Operating Lease Obligations (2017)

Fiscal Years Ending Jan. 31	Operating Leases
2018	2270
2019	1787
2020	1679
2021	1524
2022	1342
Thereafter	9537
Total Minimum Payments	18139
Less: Interest	2959
PV of Minimum Payments	15180

Capitalization of Operating Leases

Pre-Tax Cost of Debt	3.08%
Number Years Implied by Year 6 Payment	7.1

Year	Lease Commitment	PV Lease Payment
1	2270	2202.2
2	1787	1661.8
3	1679	1532.9
4	1524	1349.8
5	1342	1153.1
6 & beyond	1342	7260.3
PV of Minimum Payments		15180.1

Present Value of Operating Lease Obligations (2016)

Fiscal Years Ending Jan. 31	Operating Leases
2017	2057
2018	1989
2019	1794
2020	1697
2021	1530
Thereafter	23438
Total Minimum Payments	21505
Less: Interest	3853
PV of Minimum Payments	17652

Capitalization of Operating Leases

Pre-Tax Cost of Debt	3.08%
Number Years Implied by Year 6 Payment	8.1

Year	Lease Commitment	PV Lease Payment
1	2057	1995.5
2	1989	1871.9
3	1794	1637.9
4	1697	1503.1
5	1530	1314.7
6 & beyond	1530	9328.5
PV of Minimum Payments		17651.6

Present Value of Operating Lease Obligations (2015)

Fiscal Years Ending Jan. 31	Operating Leases
2016	1759
2017	1615
2018	1482
2019	1354
2020	1236
Thereafter	10661
Total Minimum Payments	17910
Less: Interest	3260
PV of Minimum Payments	14650

Capitalization of Operating Leases

Pre-Tax Cost of Debt	3.08%
Number Years Implied by Year 6 Payment	8.5

Year	Lease Commitment	PV Lease Payment
1	1759	1706.4
2	1615	1516.9
3	1482	1353.1
4	1354	1199.3
5	1236	1052.0
6 & beyond	1236	7809.7
PV of Minimum Payments		14650.5

Present Value of Operating Lease Obligations (2014)

Fiscal Years Ending Jan. 31	Operating Leases
2015	1734
2016	1632
2017	1462
2018	1314
2019	1192
Thereafter	9836
Total Minimum Payments	17170
Less: Interest	3065
PV of Minimum Payments	14105

Capitalization of Operating Leases

Pre-Tax Cost of Debt	3.08%
Number Years Implied by Year 6 Payment	8.3

Year	Lease Commitment	PV Lease Payment
1	1734	1682.2
2	1632	1535.9
3	1462	1334.8
4	1314	1163.8
5	1192	1024.2
6 & beyond	1192	7363.9
PV of Minimum Payments		14104.9

Cost of Debt

		\$ 114.48	2.84%	2.92%	3.00%	3.08%	3.16%	3.24%	3.32%	
Beta	\$ 114.48									
	0.55	\$ 140.35	5.84%	\$ 135.56	\$ 135.46	\$ 135.37	\$ 135.28	\$ 135.18	\$ 135.09	\$ 135.00
	0.6	\$ 130.55	6.04%	\$ 127.80	\$ 127.72	\$ 127.65	\$ 127.57	\$ 127.49	\$ 127.42	\$ 127.34
	0.65	\$ 122.00	6.24%	\$ 120.87	\$ 120.81	\$ 120.74	\$ 120.68	\$ 120.61	\$ 120.55	\$ 120.49
	0.7	\$ 114.48	6.44%	\$ 114.64	\$ 114.58	\$ 114.53	\$ 114.48	\$ 114.42	\$ 114.37	\$ 114.32
	0.75	\$ 107.81	6.64%	\$ 109.00	\$ 108.96	\$ 108.91	\$ 108.87	\$ 108.83	\$ 108.78	\$ 108.74
	0.8	\$ 101.86	6.84%	\$ 103.88	\$ 103.84	\$ 103.81	\$ 103.77	\$ 103.74	\$ 103.70	\$ 103.67
	0.85	\$ 96.52	7.04%	\$ 99.20	\$ 99.18	\$ 99.15	\$ 99.12	\$ 99.09	\$ 99.06	\$ 99.03

Cost of Equity

COGS % Revenue

		\$ 114.48	71.80%	72.20%	72.60%	73%	73.40%	73.80%	74.20%
SG&A % Revenue	21%	\$ 168.97	\$ 154.44	\$ 139.91	\$ 125.37	\$ 110.84	\$ 96.31	\$ 81.78	
	21.10%	\$ 165.33	\$ 150.80	\$ 136.27	\$ 121.74	\$ 107.21	\$ 92.68	\$ 78.15	
	21.20%	\$ 161.70	\$ 147.17	\$ 132.64	\$ 118.11	\$ 103.58	\$ 89.05	\$ 74.52	
	21.30%	\$ 158.07	\$ 143.54	\$ 129.01	\$ 114.48	\$ 99.95	\$ 85.41	\$ 70.88	
	21.40%	\$ 154.44	\$ 139.91	\$ 125.37	\$ 110.84	\$ 96.31	\$ 81.78	\$ 67.25	
	21.50%	\$ 150.80	\$ 136.27	\$ 121.74	\$ 107.21	\$ 92.68	\$ 78.15	\$ 63.62	
	21.60%	\$ 147.17	\$ 132.64	\$ 118.11	\$ 103.58	\$ 89.05	\$ 74.52	\$ 59.99	