ECON 118 Project

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Executive Summary

Walgreens Boots Alliance, Inc (Walgreens) is the largest retail pharmacy across the U.S. and Europe. It specializes in filling prescriptions, selling health and wellness products, and providing health information to customers. Walgreens and the companies in which it has equity method investments together have a presence in more than 25 countries and employs more than 415,000 people.

This document will lay out various important aspects of Walgreens' current financial position and financial statements (including insight on revenue recognition, significant assets, and key ratios), provide insight to potentially investment-deterring risk factors, and showcase a five years growth forecast for the company. In addition, we estimated stock share price based on the five years forecasts and current performance of the stock.

Overall, after a detailed analysis of the company, the Walgreens is financially positioned for healthy growth and success.

Revenue Recognition

Generally, retail revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the seller's price to the buyer is fixed or determinable and collectability is reasonably assured for most. Walgreens recognized revenue from three reportable segments. They are: 1. Retail Pharmacy USA, 2. Retail Pharmacy International, and 3. Pharmaceutical Wholesale.

1. Retail Pharmacy USA

   Walgreens' Retail Pharmacy USA division consists of 8,100 retail stores which sell health and beauty products, other general merchandise(food, dish soap, toys, etc.), and provide pharmaceutical services like filling prescriptions and immunizations. These locations are integrated with Walgreens' e-commerce platform and mobile application. Walgreens recognizes revenue in this division when the customer takes physical possession of purchased merchandise, after adjusting for returns.

2. Retail Pharmacy International

   Walgreens' Retail Pharmacy International division consists of 4,722 retail stores which are similar to the stores in the U.S. Revenue is recognized in the same manner as the Retail Pharmacy USA division, except in some countries, Walgreens will estimate any reimbursements from governments for prescription drugs and optical care, than adjust those estimates based on the actual reimbursement amounts.

3. Pharmaceutical Wholesale

   Walgreens' Pharmaceutical Wholesale division consists of 289 distribution centers in 11 countries, primarily in Europe, which supplies medicines, other healthcare products, and related services to more than 110,000 healthcare related service providers. This segment also covers services to pharmaceutical manufacturers like pre-wholesale and contract negotiation and logistics, direct to pharmacy deliveries, and other specialized healthcare services. Walgreens' recognizes revenue from the wholesale products when the day the goods are shipped. The goods are usually delivered the same day. When Walgreens acts as an agent or a logistics service provider, the company only recognizes the revenue from the fees that they charge, when their services have been performed.

Overall, these recognitions are appropriate and compliant with ASC 605 because revenues and services are recognized when they are realized or realizable and have been performed, and appropriate deductions are made using estimated which are consistent with GAAP.

Most Significant Asset

According to GAAP, assets should be divided into current and noncurrent assets. Current assets are assets that Walgreens can conveniently sell, exhaust, consume, and utilize throughout the standard business operations cycle; current assets are also expected to be converted to cash within one year. Non-current assets are Walgreens' long-term investments and assets that are not expected to be consumed within one year. Walgreens has many assets. The success of Walgreens relies on properly managing the most valuable assets. Related to Walgreens strategy, “Our growth strategy is partially dependent upon our ability to identify and successfully complete acquisitions, joint ventures and other strategic alliances.” Walgreens further breaks down their growth strategy into three parts:

1. Expand or complement existing operations i.e grow stores or partnership strategy
2. Expand into adjacent sectors of pharmacy and health care service i.e business combination
3. Use existing store space to drive customer traffic through new services like printer cartridge refills and convenient care clinics

Because of Walgreens’ focus on store expansion and optimization, property plant and equipment (PP&E) is their most significant asset. This stance is supported by Walgreens’ balance sheet, as PP&E accounted for $13.6 billion out $66 billion in total assets, or 21% of total assets. PP&E also increased by $1.4 since the end of 2016. Based on Walgreens’ cash flows, it is evident that PP&E plays a significant role in the company’s strategy of store growth, as annual spending on PP&E was over $1.2 billion. As one of the largest pharmacy chains with over 12,000 retail stores,Walgreens has partnered with numerous health-care companies, diagnostics companies, and acquired companies in the industry in order to achieve its growth strategy. Investing in PP&E is a signal that management has faith in the long-term outlook and profitability of Walgreens. PP&E includes physical, tangible assets expected to generate economic benefits and contribute to revenue for many years. For instance, Walgreens is planning to open 600 patient centers which will increase PP&E substantially. Because of these significant expansions, PP&E is the most significant asset related to Walgreens’ growth strategy.

Unique Line Item

After analyzing Walgreens’ financial statements, no unique line items pertaining to Walgreens or the retail pharmacy/pharmaceuticals industry were found. Line items involving Walgreens’ acquisition were not considered unique, since similar line items would be found on the financial statements of any company making an acquisition.

Critical Risk Factors

1. U.S. drug sales are reimbursed by a limited number of pharmacy benefit management (PBM) complanies.

    PBMs focus on working with health insurers and pharmacies to manage prescription drug plans. They can limit both the drugs they choose to cover and the pharmacies they work with. Walgreens constantly faces the risk of being excluded from or restricted from PBMs' future prescription plans. If Walgreens can no longer participate in those pharmacy provider networks, prescription drug sales will decrease significantly. In order to address this risk, expand their pharmaceutical market and maintain existing patients, Walgreens purchased and invested in several pharmaceutical companies, including PBMs . For instance in 2017, Walgreens and the PBM Prime Therapeutics LLC closed a transaction to form a combined central specialty pharmacy and mail services company, AllianceRx Walgreens Prime, forming a strategic alliance. Walgreens also entered into a purchase agreement with Rite Aid to acquire 2,186 stores, three distribution centers and related inventory in 2017. Finally, Walgreens acquired the wholesale drug distributor, AmerisourceBergen Corporation, in 2016. Part of the arrangement included a ten-year pharmaceutical distribution agreement, giving Walgreens the ability to access generic pharmaceutical products. Based on these recent strategic moves of, Walgreens is appropriately addressing the risk of decreased prescription drug sales.

2. Compliance with new and old healthcare regulations.

    Compliance with the U.S.Food and Drug Administration (FDA) is crucial for Walgreens since the FDA regulates most of the company's sales. Failure to adapt to new regulations could incur significant legal and operational ramifications. If one or more Walgreens' facilities fail an FDA inspection, the FDA sends a letter to the facilities where inadequacies were found. The facilities then have 15 days to respond to the letter with corrective procedures. If the facility fails to respond, the FDA can take legal action against Walgreens. Consequences can range from Walgreens having their goods removed from the market by seizure to an injunction to stop the Walgreens from doing business with any goods violating regulations. The company can also face criminal fines if the violations are severe enough and not addressed in a timely manner. To protect themselves from FDA regulation violations, Walgreens attempts to maintain its facilities so they meet FDA standard. If they do receive any FDA investigation inquiries, Walgreens addresses the violations within the necessary 15-day time window, appropriately mitigating the risk. For instance, the FDA recently accused Walgreens for violated regulations by selling tobacco products to minors. Walgreens responded promptly with the steps it had been and will continue to take to fix the problem, including a focus on training employees and strict requirements for customers to show identification when purchasing tobacco products.

Growth

In the recent years, Walgreens' growth was mainly driven inorganically, through mergers and acquisitions. This strategy is reflected in the company's rising business acquisition- related costs which are $80, $102, and $474 million in 2015, 2016 and 2017 respectively. In the pharmaceutical retail industry, acquisitions have become the most common way to drive growth. Acquisition allows for Walgreens to purchase established small pharmacies and drug stores and integrate them into its network. Moving forward, CVS and Walgreens are the two most dominant companies in the industry, so any uprising competitor will most likely just be bought out by one of them. This stance is evidenced by Walgreens' recent acquisition of Rite-Aid stores. In September of 2017, Walgreens secured regulatory clearance for an amended and restated asset purchase agreement to purchase 1,932 stores, 3 distribution centers and related inventory from Rite Aid for $4.375 billion in cash and other considerations. Walgreens estimates that the transfer of the stores' ownership is expected to be completed by spring of 2018. Walgreens' growth was also driven by partnerships with various other companies, which helped Walgreens expand in other pharmacy and healthcare- related sectors. For instance, the Amerisourcebergen acquisition expanded Walgreens' position in the pharmaceutical wholesale sector and will help them become a more dominant pharmaceutical seller in the market. Another recent partnership with LabCorps, will help Walgreens improve research and development for their own Walgreens- brand drugs. The more of its own brand drugs Walgreens is able to sell, the more profits the company can retain.

Other companies like Costco with their Kirkland brand have shown considerable success, and Walgreens is trying to accelerate it own brand's growth via these new partnerships with well established lab testing companies.

Additionally, Walgreens aims to establish a greater online presence by entering into a partnership with Microsoft. Microsoft is a multinational computer software and electronics manufacturer and one of the leading technology companies in the world. In January 2019, Microsoft announced its partnership with Walgreens with the objective of delivering the next generation experience of health care. This partnership will enable Walgreens to obtain better information on customers, speed up market growth, increase cost effectiveness, and provide more customized care, products, and services. Microsoft will provide the tools Walgreens needs to increase productivity, internal cooperation, and consumer engagement. Microsoft plans to provide Walgreens with the productivity software called Microsoft 365, to more than 380,000 employees and stores globally. Microsoft and Walgreens will work collaboratively on research and development to construct healthcare solutions, reduce the cost of care, and improve health outcomes.

One acquisition or partnership that Walgreens may seek to pursue in the future is Humana, the fifth- largest health insurance company in the U.S. This potential transaction would give Walgreens a foothold in the health insurance industry, aligning with the company's strategy to expand into multiple healthcare related sectors. Acquiring Humana would also help Walgreens compete with its rival, CVS, since CVS recently merged with Aetna, the third-largest health insurance company in the U.S.

Economy / Industry

Government cutbacks on spending can reduce funds in programs such as Medicare, which can ultimately hurt company and competitor sales. Specifically, government agencies trying to control costs are expected to reduce drug reimbursement rates. When the government (or any third party payers) reduce reimbursement rates for patients, pharmaceutical sales are negatively impacted. Furthermore, times of economic recession negatively affect the industry's retail sales, as consumers spend less on beauty and healthcare products. Like many other firms with large retail divisions, Walgreens faced declining earnings during the 2008 recession. However, Walgreens was able to survive the down economy by implementing a variety of strategic and cost cutting measures. The company implemented a voluntary early retirement and severance program for corporate positions, as well as later involuntary programs in 2009. Additionally, Walgreens decided to reduce its capital expenditures by slowing the rate of store openings, and focusing more on openings in strategic markets. This extra capital was used to refurbish existing stores and inventories to keep sales steady. Part of this strategy included making food, paper products, and generic drugs easier to find on shelves since those products sold relatively better in the recession. Finally, on within their pharmaceutical operations, Walgreens implemented the POWER pharmacy program. This program focused on consolidating order entry, insurance filing and pharmacy stocking for certain medications, allowing pharmacists in stores to focus on building relationships with customers and giving advice. Walgreens also expanded their prescription savings club, which offers members access to generic medications for lower prices than non-members. Overall, based on the company's strategy after the 2008 recession, Walgreens is able to survive times of economic downturn through cutting costs, and scaling back organic growth, while improving efficiencies and sales within its current operations.

Walgreens' major competitor is CVS Health Corporation (CVS). Other top competitors include, Walmart and Amazon. While Amazon is expanding rapidly, Walgreens is less threatened by its growth than other brick and mortar stores since Amazon cannot provide live pharmacists to consult customers on medications. As long as this remains the status quo, pharmacies will enjoy a steady customer base even with Amazon's expansion. Minor competition comes from independently owned drug stores and pharmacies. Since Amazon and Walmart are primarily focused in retail, it does not make sense to compare their profitability to Walgreens. Other minor pharmacies are not large enough to pose significant competition, so CVS remains the best company to compare with Walgreens' revenue profitability.

Walgreens (FY 2017)	Revenue (In Thousands	Gross Profit	Margin
Total	$118,000	$29,162	24.7%
Retail Pharmacy USA	$87,302	$22,450	25.7%

Retail Pharmacy International	$11,813	$4,753	40.2%
Pharmaceutical Wholesale	$21,188	$1,965	9.27%

CVS (2017)	Revenue (In Thousands)	Gross Profit	Margin
Total	$184,000	$28,545	15.5%
Retail/LTC	$79,398	$23,317	29.4%
Pharmacy Services	$130,596	$6,040	4.6%

CVS did record more revenue ($66 Billion) than Walgreens, but also posted a lower profit margin. This difference in revenue and profit margin is primarily explained by Walgreens' greater focus on retail over pharmacy services. Pharmaceutical wholesale involves selling health supplies and medicine in bulk to hospitals, pharmacies, and other clients, resulting in lower profit margins than retail sales. This difference is also evidenced within Walgreens, when comparing the profit margins of their Retail Pharmacy International and USA Segments. About two thirds of Walgreens' International Retail Pharmacy revenue comes from retail sales, while the other third comes from pharmacy services like filling prescriptions and mananinging costs for health insurance payers, resulting in a 40% margin. Revenue generated from Retail Pharmacy USA is the inverse, with two thirds from Pharmacy and one third from retail, resulting in a 25% margin.

Moving forward, Walgreens may see growing revenues with decreasing margins as it expands further into the pharmaceutical wholesale space. In 2016, Walgreens partnered with Tricare, the insurance company that serves the US Department of Defense, replacing CVS as the DOD's preferred prescription drug provider. Walgreens' strategic alliance with Prime Therapeutics, one of America's largest PBMs, should also boost pharmaceutical sales for Walgreens. These new blocks of business, combined with initiatives to increase online presence, and a steady customer base with an aging population, Walgreens looks set to enjoy a long reign as a market leader in the pharmaceutical industry.

Financials Statements Signals: Future Earnings and Operating Difficulties

Summary:

Positive Future Earnings

1. Sales increasing every year
2. Equity earnings in AmerisourceBergen increasing every year
3. Year to year consistency
4. Gross profit and operating income increased since 2013
5. Acquisition of Rite-Aid stores

Operating Difficulties

1. Gross profit and operating income decreased slightly from 2016 to 2017
2. Interest growing every year because to large long-term borrowings, decreasing net income

Discussion:

The "Store Optimization Program" was approved by the Walgreen Board of Directors in October 2017, which would affect locations within the company's Retail Pharmacy USA division upon the acquisition of certain stores and related assets from Rite Aid. The Store Optimization Program includes plans to close approximately 600 stores across the U.S. and is expected to result in cost savings of $300 million per year to be delivered by the end of 2020. Walgreens has about 8,100 retail pharmacies in the U.S. Therefore, we can expect expenses to decrease in the next few years. Meanwhile, revenues should increase from the stores acquired from Rite-Aid.

The only concerns indicated by Walgreens' financial have been minor. The company's increasing interest from long-term borrowing can be justified because the borrowing helps fund acquisition and partnerships, like with AmerisourceBergen, that will result in greater future benefits. Walgreens has performed very consistently through the years with constant margins at an average of 26%. Revenue growth has been increasing for many years, from $72.2 billion in 2013 to $118.2 billion in 2017. This consistency, positive growth and debt management from Walgreens has lead to the company replacing General Electric as part of the Dow Jones Industrial

Average. This addition to the Dow Jones indicates a positive financial position for Walgreens in the years to come.

Key Ratios

1. Inventory Turnover			
	2015	2016	2017
Walgreens	10.40	9.92	9.98
CVS	9.78	10.34	10.40

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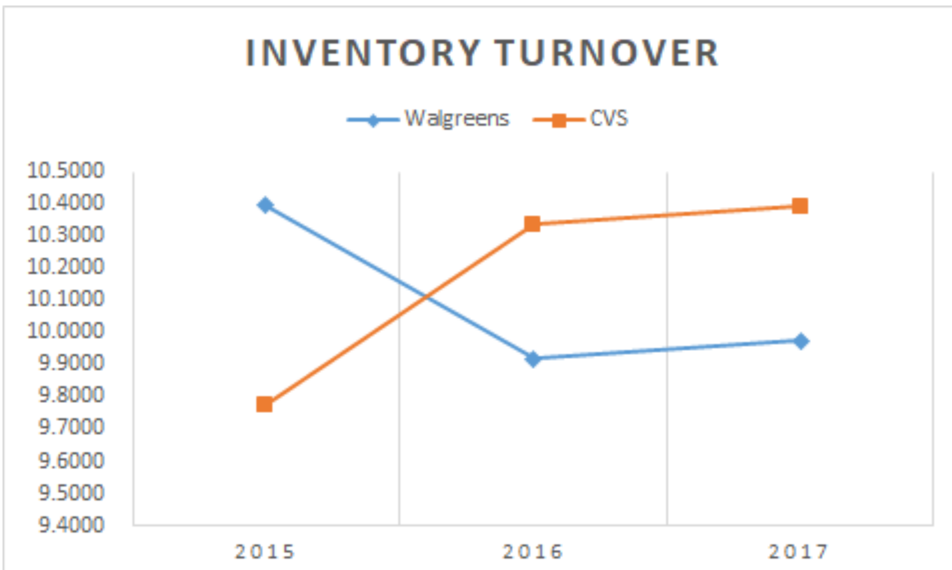
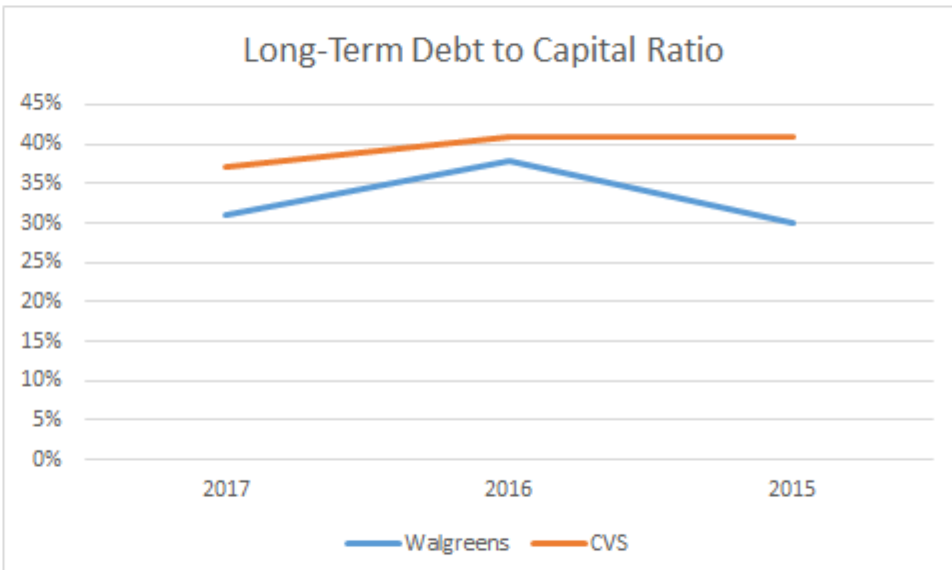


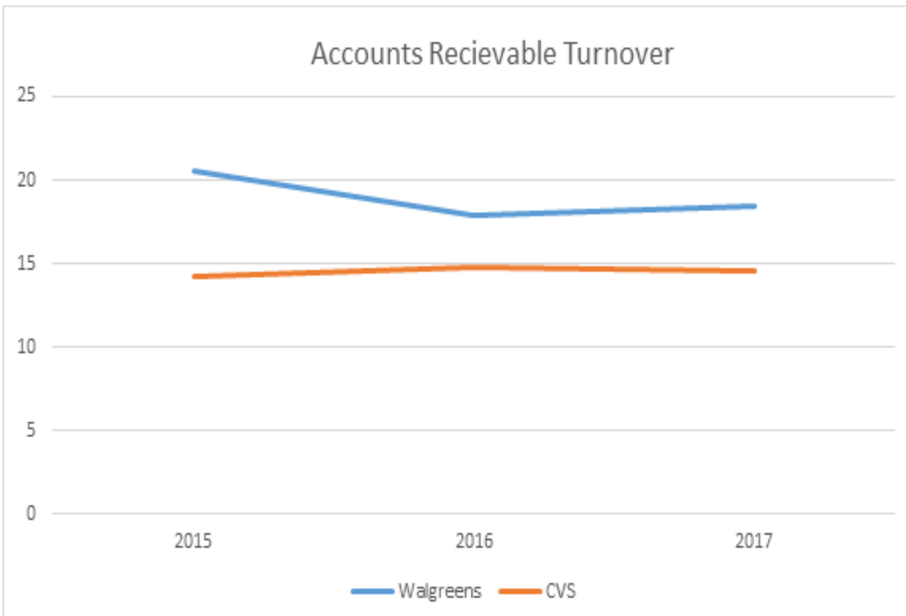
Inventory is one of the most significant assets for Walgreens and for other retail- based businesses. Inventory turnover reflects how quickly a company is able to sell and replace it's good. For pharmacies, having inventory turn over quickly is extremely important since revenue is generated through the sale of drugs and retail goods. The quicker the drugs and goods are able to be sold, the more revenue the pharmacy generates. Although Walgreens does have a lower inventory turnover than CVS, the difference is insignificant, as both company's ratios have fluctuated within the same range over the past three years . The average pharmacy industry turnover is around 10, which is right in line with Walgreens' performance

2. Long-Term Debt to Capital Ratio			
	2015	2016	2017
Walgreens	30%	38%	31%
CVS	41%	41%	37%



Walgreens' ratio of consolidated debt to total capitalization must not exceed 60% because this is a mandatory requirement imposed by its creditors. Long-Term Debt to Capital, or the Total Capital ratio is important because it measures how much of the company is financed by debt vs equity. Generally, a lower debt to capital ratio indicates a less risky investment, since the company will be more financed by equity than debt. As we can see with the table below Walgreens has been able to maintain below their required threshold and thus has shown that it can manage itself well. Walgreens has consistently maintained a lower debt to capital ratio than CVS, which indicates that Walgreens will be a superior low risk, long term investment.

3. Accounts Receivable Turnover			
	2015	2016	2017
Walgreens	20.55	17.90	18.49
CVS	14.21	14.76	14.58



Accounts receivable (A/R) is one of a company's liquidity assets. A/R turnover indicates whether a company is performing well on managing credit sales. The Pharmacy services and retail store average is around 13.6. Walgreens' A/R turnover is above both the industry average and CVS'. The higher A/R turnover ratio indicates Walgreens' collection of accounts receivable is efficient enough and the company has a high proportion of quality customers that pay debts quickly.

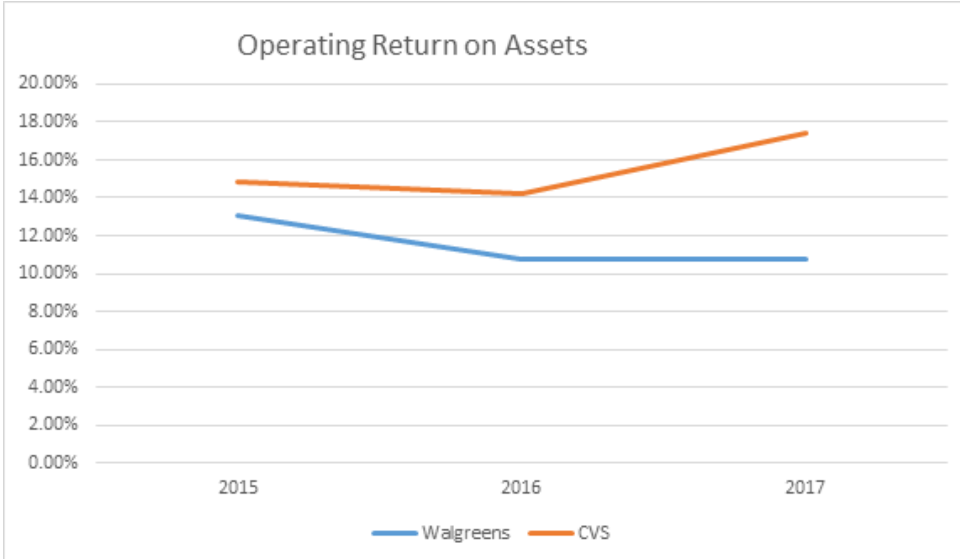
4. Return on Common Equity			
	2015	2016	2017

Walgreens	16.3%	13.6%	13.9%
CVS	13.9%	14.4%	17.8%

Return on common equity is able to determine a company's ability to generate profits for its investors. in percentage terms, the ratio shows how much one dollar of stockholder's equity contributed to Walgreens' profits. CVS has performed better in this sector, but not by much, and only because it has had a higher revenue in prior years. However, like CVS, Walgreens seems to be projecting upwards after a decrease in 2016 because of an increase in the repurchase of treasury stock through a program initiative that the company approved. The average return of 14.6 barely misses the optimal range of 15%-20% but with the increase in future years net income, Walgreens will be within this range and remain a strong investment option

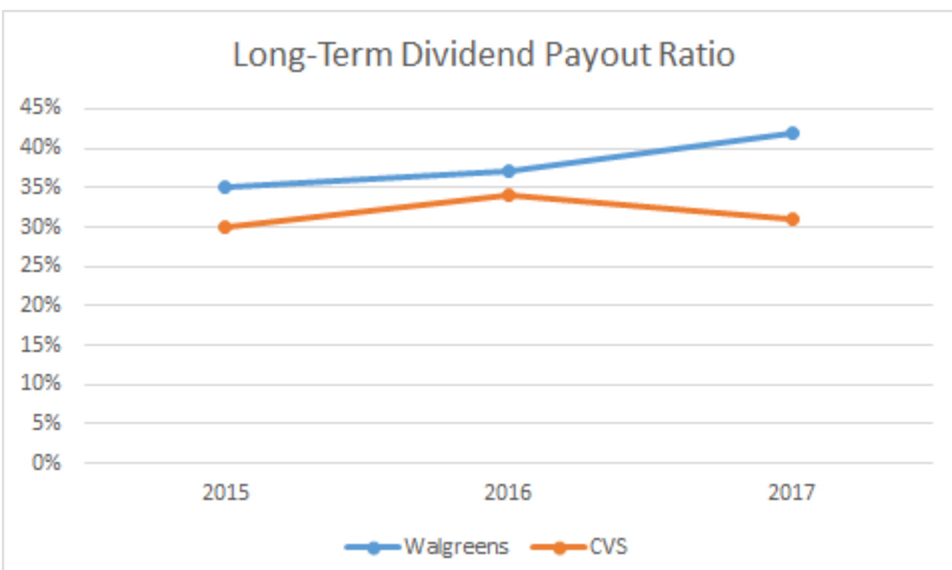
5. Operating Return on Assets			
	2015	2016	2017
Walgreens	13.1%	10.8%	10.8%
CVS	14.8%	14.2%	17.4%

Operating Return on Assets measures how the company is generating profits with its tangible assets. This ratio is important since CVS and Walgreens rely heavily on the acquisition of other companies, and it is important to judge their performance independently of goodwill and intangibles. Recently, CVS has been outperforming Walgreens in this area. However, Walgreens has recently entered into more acquisitions and partnerships than CVS, explaining the discrepancy.. With these new acquisitions we can expect an increase in Walgreens net income in future years which will offset the increase in goodwill, and thus increase this ratio once again Generally, a ratio above 5% is considered strong, and Walgreens has remained well above that generating an average of 12.57% in the past 3 years. In other words, for every eight dollars



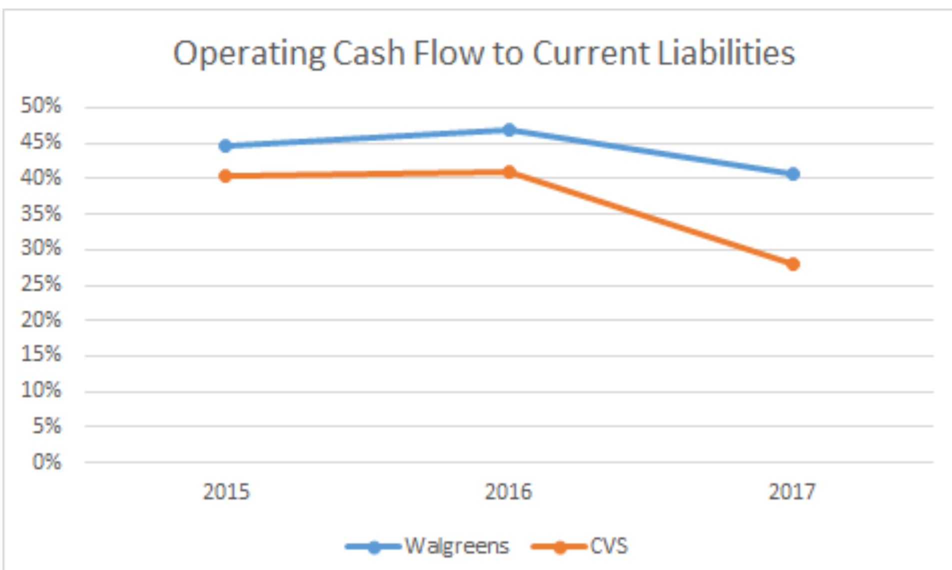
Walgreens has invested into their operating assets, they are able to generate one dollar of profit,

Long-term Dividend Payout Ratio			
	2015	2016	2017
Walgreens	35.0%	37.0%	42.0%
CVS	30.0%	34.0%	31.0%



This ratio determines the proportion of earnings a company is paying out to its stockholders. This gives us an idea of how the company is reinvesting its earnings. Walgreens has an objective to maintain a long-term dividend payout ratio of approximately 30-35% of adjusted net earnings. For 2017, Walgreens had approximately a 42% dividend payout ratio, while CVS only showed about 31%. This discrepancy indicates that Walgreens pays a higher percentage of earnings to shareholders in dividends or reinvests a higher percentage of its earnings in operations. As a result, this ratio indicates Walgreens as a more preferable long term, sustainable investment than CVS.

7. Operating Cash Flow to Current Liabilities			
	2015	2016	2017
Walgreens	44.5%	46.8%	40.8%
CVS	40.5%	41.0%	28.1%



This ratio determines a company's ability to pay off its upcoming obligations with their current year's operating cash flow. Usually, a strong ratio is expected to be at least 40%, and Walgreens has maintained that threshold over time. This consistency shows that Walgreens is doing well in generating its cash and maintaining a manageable amount of liabilities. In comparison, CVS has barely reached that 40% threshold in prior years, and has recently dropped to 28% because of much lower operating cash flows and higher average current liabilities. Walgreens therefore, is managing its debt better and outperforming CVS here.

Areas where management may manipulate earnings

1. Acquisitions & Valuations

   Since the main source of growth for Walgreens is through business combinations and acquisitions, there exists the possibility of manipulated earnings through valuations. Valuations are one of the hardest management assertions to validate because of the high level of subjectivity involved with acquisitions and combinations. Each time Walgreens acquire another company, more inherent risk is added to the accuracy of their earnings. For example, during the Rite-aid acquisition, the purchase price that Walgreens offered for the business may be greater than what Rite-aid was currently worth because they see more potential benefit and thus will record greater goodwill. This potential may never actually be realized, and eventually could lead to a goodwill impairment. Furthermore because of constant growth and acquisition, one of Walgreens' most significant assets is PP&E, a non-current asset, and thus carried at historical cost rather than fair value. This means what the asset is actually worth may not be accurately reflected by what is recorded on Walgreens' books.

2. Timing of revenue recognition

   Another source of possible earnings manipulation would be occur when Walgreens recognizes revenue. Management may feel pressured to meet specific earnings targets, and thus may record earnings before goods or services are delivered or fulfilled, and make up for the accelerated earnings later. The company's retail segment also had a large increase in total sales at the end of the year, and this may indicate that the company is recognizing revenue too early in order to make up for losses in the other segments of their business. There is also a possibility that management has been using conservative estimates and accounting principles in order to smooth out periods of lower revenue. Thus, the timing of revenue recognition may be manipulated and affect earnings.

5 Year and Terminal Value Forecast

	Consolidated Walgreens Boot Alliance and Subsidiaries 5 Year and Terminal Value Forecast					
	(All dollar amounts in Millions)					
						Terminal
	Yr 1	**Yr 2**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
	2018	**2019**	**2020**	**2021**	**2022**	**2023**
Revenue	$131,537	$149,952	$166,447	$179,763	$188,751	$194,413
Growth rate	*11.27%*	*14.00%*	*11.00%*	*8.00%*	*5.00%*	*3.00%*
Cost of sales	$100,745	$113,964	$124,835	$133,024	$137,788	$141,922
	76.59%	*76.00%*	*75.00%*	*74.00%*	*73.00%*	*73.00%*
Gross Profit	$30,792	$35,988	$41,612	$46,738	$49,075	$50,547
	23.41%	*24.00%*	*25.00%*	*26.00%*	*26.00%*	*26.00%*
SG&A	$24,817	$28,791	$31,958	$34,155	$35,863	$36,939
	18.87%	*19.20%*	*19.20%*	*19.00%*	*19.00%*	*19.00%*
Pretax Income	$5,975	$7,197	$9,654	$12,583	$13,212	1$3,608
Add:						
Depreciation and amortization	$1,770	$1,799	$1,831	$1,798	$1,699	$1,555
	1.35%	*1.20%*	*1.10%*	*1.00%*	*0.90%*	*0.80%*
Stock compensation expense	$130	$150	$166	$180	$189	$194
	0.10%	*0.10%*	*0.10%*	*0.10%*	*0.10%*	*0.10%*
Subtract:						
Capital expenditures	$1,367	$2,249	$2,663	$3,056	$3,209	$3,305
	1.04%	*1.50%*	*1.60%*	*1.70%*	*1.70%*	*1.70%*
Free Cash Flow before tax	$6,508	$6,897	$8,988	$11,505	$11,891	$12,052
Tax (21%)	$694	$1,448	$1,887	$2,416	$2,497	$2,531
Free Cash Flow (unadjusted)	$5,814	$5,449	$7,100	$9,089	$9,394	$9,521
PV factor	0.92140	0.84899	0.78226	0.72078	0.66413	0.61193
Free Cash Flow (adjusted)	$5,357	$4,626	$5,554	$6,551	$6,239	$5,826
Sum PV (Year 1 - Year 5)	$28,328					
Sum of terminal year	$114,348					
Total sum of PV of all future FCF	$142,675					
Weighted avg common shares O/S	$1,073.5					

Estimated share price		$106.52					

Revenue and expense changes

Revenue:

Looking at the past performance, Walgreens has had impressive incremental revenue growth. The average growth rate between 2013 to 2017 was about 11.2%. The company's 2018 growth rate is known since the 2018 (Year 1) 10-K has been released. Total revenue in 2018 grew 11.27%. In Walgreens' Q4 2018 earnings call, the CFO expressed confidence in strong future growth. As America's population ages, Medicare becomes more important which will help contribute to future growth for Walgreen, as well as the rest of the retail pharmacy industry. Because of new acquisitions such as the purchase of Rite Aid stores, Walgreen's has enjoyed a higher-than-forecasted growth rate of new patients and expects this improvement to continue into next year. Walgreens expansion of its partnership with LabCorp plays a large part in these projections, as it plans to open at least 600 LabCorp patient service centers at Walgreens' stores, bringing in even more customers. Aside from the projection for strong U.S. pharmacy revenue growth, Walgreens is capitalizing on its long-standing presence in China. In Q4 2018, Walgreens announced in an agreement with Alibaba, China's e-commerce leader, to bring Walgreens' own beauty brands to Chinese consumers on Alibaba's global platform. Even though revenue continues to decrease in U.K. because of the weak economy and the currency exchange issues, growth in the U.S. and other countries like China have covers this decline. Therefore, Walgreens' total revenue growth rate is projected to increase to 14% for another year and then drop by 3% each following year because of the contraction of new patients and customers from acquisitions and expansion. The terminal year is estimated at a 3% growth rate as a conservative estimate.

Cost of Sales

The average cost of sales was 73% over the past 6 years and increased on average by 1.5%. During Walgreen's 2018 earnings call, the CFO noted that gross profit increased in the mid-single digits because of growth in health & wellness and beauty categories within retail pharmacy. Walgreens' average gross profit is 27% based on previous years' performance, and Year 1 was 23.41% based on the 2018 10-K. Therefore, we conservatively project Walgreens' gross profit percentage to increase to 24% in Year 2, increase 1% for the next two years and then remain the same for another two years. Walgreens' gross profit at the terminal year will be 26%. In addition, because of Walgreens' focus on procurement savings, cost of sales is projected to slightly decrease from previous years, eventually reaching its historical average. The cost of revenue in 2018 was 76.59%, and in order to align shrinking cost of sales with gross profit growth, the projections for Year 2 to the terminal year are 76.00%, 75.00%, 74.00%, 73.00% and 73.00%.

Sales, General, and Administrative (SG&A) Expense

Based on the 2018 10-K and Q4 earnings call, SG&A expense should decline because of strong cost control discipline implemented by a restructuring program, the Cost Transformation Program. The program will implement certain employee postretirement benefits amendments, asset impairments, and real estate cost reductions. Acquisitions such as Rite Aid did increase SG&A expense, but those increases were more than offset by the cost control measures. In addition, SG&A expense includes equity earnings in AmerisourceBergen and other income. The growth of earnings in AmerisourceBergen slightly helped to reduce SG&A expenses. Since the Cost Transformation Program concluded in the fourth quarter of fiscal 2017, we estimate the decline in future years SG&A expense to slow dramatically. Since SG&A expense in 2018 was 18.87%, and new store openings are planned in 2019, SG&A expense is projected to increase slightly to 19.2% in Year 2 and Year 3 and then drop to 19.00% for four years. The terminal year SG&A expense is projected at 19.00%.

Depreciation and Amortization

Starting from 2012, annual depreciation and amortization expense dropped by 0.1% of total revenue. According to Walgreens 2017 10-K, Walgreens depreciated its assets on a straight- line basis over the assets' useful life. Capital leases are depreciated over the shorter of the leases' term, or capital's useful life. After considering Walgreens' pattern of acquiring and disposing of fixed assets, chosen depreciation method, and prior years' data, we project depreciation and amortization expense to drop by 0.1% each year.

Stock Compensation Expense

Walgreens has had stock compensation expense since it adopted the Omnibus Incentive Plan in 2013. The plan consolidates several previously existing equity plans, and stock compensation expense has consistently been 0.1% of Walgreens' total revenue. We project this rae to remain constant in the future, as we do not expect any dramatic change to the plan.

Capital Expenditures

One of the Walgreens' largest assets is PP&E, and the company has spent 1.0% to 1.7% of total revenue on capital expenditures in previous years. The capital expenditure rate has dropped by 0.1% each year since 2012 until the rate was 1.0% in 2018. Approximately $1.3 Billion was spent on capital expenditure annually in order to enhance operating efficiencies and replace old fixed assets with newer, higher capacity assets. Since there is no indication that Walgreens is planning to spend a larger proportion of revenue on property, plant and equipment in the future, capital expenditures are projected to stay at a constant rate of 1.0% of total revenue.

CAPM and Beta Calculation

The Beta of .82 was selected from Yahoo. This Beta value makes sense, since the Walgreens Boots Alliance is a is a large company, number 19 on the Fortune 500 list, and therefore should be a less risky investment than the market average.

CAPM = $R_f + \beta$ * (Market Premium)

2.72 + .82(7.08) = **8.53** (Cost of Equity)

Market Premium = $R_m - R_f$ (Market Rate - Risk Free Rate)

9.8 - 2.72 = 7.08

Market Rate= 9.8 (90 year historical average annual return of S&P 500)

Risk Free Rate= 2.72 (as of March, 6th 2019)

12. Stock Price Calculation and Comparison vs Competition

As calculated in our five year value and terminal forecast, we concluded that Walgreens price per share should be $106.52. This is higher than Walgreens' actual share price at the end of 2017, which was $75.26. This discrepancy shows investors' concerns that, despite its growing partnerships,Walgreens' slowing retail sales in the face of Amazon's dominance show limited room for growth. However, there are several factors pointing to why Walgreens should be valued closer to $100 than $75. First, as mentioned when discussing Walgreens' competitors, Amazon does not have the capability to compete with Walgreens' in-person pharmacy services. As long as people are filling prescriptions, Walgreens will enjoy a steady flow of customers to its brick and mortar stores. Furthermore, while Amazon has to divide its resources to expand into multiple sectors at once, Walgreens can focus on developing out its own ecommerce platform. An aging population will also continue to bring customers through Walgreens' doors. Walgreens' outlook is further strengthened as it diversifies into different healthcare industries. Walgreens and CVS are the only two major players in the retail pharmaceutical space, and as they expand into other areas, they become more firmly entrenched in America's future.

CVS Share Price Calculation:

	Consolidated CVS 5 Year and Terminal Value Forecast					
	(All dollar amounts in Millions)					
						Terminal
	Yr 1	**Yr 2**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
	2018	**2019**	**2020**	**2021**	**2022**	**2023**
Revenue	$194,579	$214,037	$231,160	$245,029	$254,831	$262,476
Growth rate	*11.27%*	*10.00%*	*8.00%*	*6.00%*	*4.00%*	*3.00%*
Cost of sales	$156,447	$173,156	$188,164	$200,679	$209,980	$217,592
	80.40%	*80.90%*	*81.40%*	*81.90%*	*82.40%*	*82.90%*
Gross Profit	$38,132	$40,881	$42,996	$44,350	$44,850	$44,883
	19.60%	*19.10%*	*18.60%*	*18.10%*	*17.60%*	*17.10%*
SG&A	$36,726	$40,667	$30,051	$33,079	$35,676	$38,059
	18.87%	*19.00%*	*13.00%*	*13.50%*	*14.00%*	*14.50%*
Pretax Income	$1,406	$214	$12,945	$11,271	$9,174	$6,824
Add:						

	Depreciation and amortization	$2,718	$2,997	$3,236	$3,430	$3,568	$3,675
		1.40%	*1.40%*	*1.40%*	*1.40%*	*1.40%*	*1.40%*
	Goodwill impairments	$6149	$3,382	$2,312	$1,225	$1,274	$1,312
		3.16%	*1.58%*	*1.00%*	*0.50%*	*0.50%*	*0.50%*
	Stock compensation expense	$280	$300	$347	$368	$408	$420
		0.14%	*0.14%*	*0.15%*	*0.15%*	*0.16%*	*0.16%*
Subtract:							
	Capital expenditure	$2,037	$2,461	$2,889	$3,308	$3,542	$3,648
		1.05%	*1.15%*	*1.25%*	*1.35%*	*1.39%*	*1.39%*
Free Cash Flow before tax		$8,516	$4,431	$15,950	$12,987	$10,881	$8,583
Tax (21%)		$2002	$930	$3,350	$2,727	$2,285	$1,802
Free Cash Flow (unadjusted)		$6,514	$3,500	$12,601	$10,259	$8,596	$6,781
	PV factor	0.92140	0.84899	0.78226	0.72078	0.66413	0.61193
Free Cash Flow (adjusted)		$6,002	$2,972	$9,857	$7,395	$5,709	$4,149
Sum PV (Year 1 - Year 5)		$31,934					
Sum of terminal year		$81,431					
Total sum of PV of all future FCF		$113,366					
Weighted avg common shares O/S		1,020.0					
Estimated share price		$79.83					

CVS' forecast was calculated using 2013 – 2017 data financial data, along with the 2018 10-K for reference. Average revenue growth was 9.96%, with Year 1 projection of 10. Future years' revenue growth rate is expected to drop by 2% each year until Year 5. The growth rate of the terminal year is 3%, a conservative estimate. CVS had an average cost of sales of 82.26 since 2013. This percentage decreased to 80.4% in 2018, but we are conservatively projecting that the cost of sales will by 0.5% each year until it reaches its average on the terminal year. SG&A expense has Averaged 12:46%, but was up at 18.87% in 2018, mostly because of goodwill impairments. Thus, Year 2 SG&A expense is projected to be 19%, then decrease to 13% in Year 3 before increasing by .5% each year. SG&A expense in the terminal year is projected to be 14.5%. CVS' depreciation expense has been quite stable, averaging 1.4%. Therefore we expect depreciation expense to remain unchanged as a proportion of revenue. Goodwill impairments were 1% 2017 and 3.16% in 2018. Being, we projected a 50% decrease in goodwill impairments in Year 2 to 1.50% of revenue, and another decrease to 1% in Year 3. Goodwill impairments from Year 4 through terminal year are projected at 0.5%. Finally, capital expenditures averaged 1.39% since 2013. Since there was a decline in capital expenditures in 2017 & 2018, our projection for Capital Expenditures in Year 2 will be 1.15% of revenue, and increase by .1% each year until Year 5 where it will only increase to 1.39%.

Compared to Walgreens's projected per share price of $106.52, CVS's per share stock is estimated to be valued at $79.83. Although CVS is forecasted to have a higher revenue each year, their cost of sales has historically been higher than that of Walgreens with an average cost of sales of 82.26%, meaning that they profit less despite having more sales. After SG&A expenses are also factored in, Walgreens is forecasted to have a higher pretax income. To measure profitability of the company, we use this pretax income to determine free cash flow. Looking at CVS's operating expenses, there was a large increase in 2018 because of higher operating expenses in the retail segment of their business, partially due to a goodwill impairment charge for the Aetna acquisition, and an increase in acquisition related transaction and integration costs. This means that the fair value of the business had to be lowered and thus CVS was deemed to be overvalued according to management. Furthermore, Walgreen has more weighted average common shares outstanding, meaning that despite having more shares available, the company's stock is still forecasted to be of higher value than CVS. With Walgreens continuing to expand through strategic acquisitions, and effectively optimizing their stores to generate more revenue with fewer costs, it is clear to see that Walgreens should be valued at a higher price than CVS.

Calculation sheet for Ratios

Inventory Turnover

Formula: Cost of sales / Weighted average of Inventory

	Walgreens:	CVS
2015	76,691/7377=10.396	126,762/12,965.5=9.777
2016	87,477/8,817=9.921	148,669/14,380.5=10.338
2017	89,052/8,927.5= 9.975	156,220 / 15,028= 10.395

Long-Term Debt to Capital Ratio

Formula: Long-term debt / (Long-term debt + Equity)

	Walgreens:	CVS
2015	13,315/44,615=30%	26,267/63,470=41%
2016	18,705/48,986=38%	25,615/62,449=41%
2017	12,684/40,958 = 31%	22,181/59,876 = 37%

Accounts Receivable Turnover

Formula: Sales/ Average of AR

	Walgreens:	CVS
2015	103,444/5,033.5=20.55	153,290/10,787.5=14.21
2016	117,351/6,554.5=17.90	177,526/12,026=14.76

2017	118,214/6,394=18.49	184,765/12,672.5=14.58

Return on Common Equity

Formula: (Net Income- Non-Controlling Interest- Preferred Stock Dividends)/Avg CSE

	Walgreens:	CVS
2015	(4,220)/ 25,958.5= 16.3%	(5,237)/ 37583.0= 13.9%
2016	(4,173)/ 30,790.5= 13.6%	(5,317)/ 37018.5= 14.4%
2017	(4,078)/ 29,277.5= 13.9%	(6,622)/ 37,264.5= 17.8%

Operating Return on Asset

Formula: (NI + (1- Tax Rate)(Interest Expense) + Noncontrolling interest in Earnings) / Avg Net Operating Assets

	Walgreens:	CVS
2015	(4,279 + (1-.199)(605) + 59) / (36,885)= .131	(5,239 + (1-.393)(838) + 2) / (38,972)= .148
2016	(4,191 + (1-.194)(596) + 18) / (43,459)= .108	(5,319 + (1-.384)(1,058) + 2) / (42,187.5)= .142
2017	(4,101 + (1-.157)(693) + 23) / (43,540) = .108	(6,623 + (1-.198)(1041) + 1) / (42,876) = .174

Long-Term dividend Payout Ratio

Formula: (Dividend/Share)/(Earnings/Share)

	Walgreens:	CVS
2015	$1.40/4.00= 35%	$1.40/4.63= 30%
2016	$1.43/$3.82= 37%	$1.70/4.90= 34%
2017	$1.60/$3.78= 42%	$2.00/6.44= 31%

Operating Cash Flow to Current Liabilities

Formula: Operating Cash Flow / Average Current Liabilities

	Walgreens:	CVS
2015	5,664/0.5(16,557+8,895)=44.5%	8,539/0.5(23,169+19,027)=40.5%
2016	7,847/0.5(17,013+16,557)=46.8%	10,141/0.5(26,250+23,169)=41.0%
2017	7,251/0.5(18,547+17,013)=40.8%	8,007/0.5(30,648+26,250)=28.1%

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