The Henry Fund
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CVS Health Corporation (CVS)

November 15, 2018

Pharmacy Benefits Manager – Consumer Staples

Stock Rating **Hold**

Investment Thesis

CVS has a HOLD recommendation at this time. CVS has nearly completed the purchase of Aetna, a deal that will give them a fully vertically integrated health-care delivery company. They have existing cash and enough cash flow to repay the additional debt while positioning themselves to capture increased health-care spending.

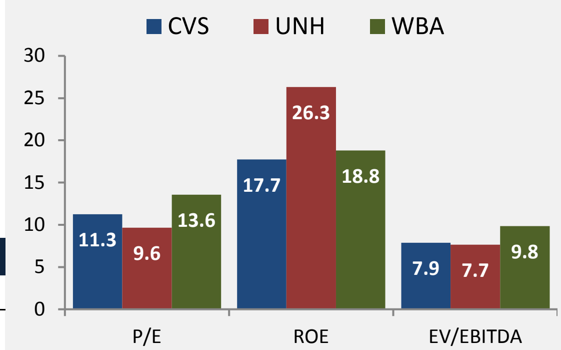
Drivers of Thesis

- CVS's Pharmacy Services Segment is forecasted to see revenue growth at a CAGR of 5.8% across the forecasted period.
- Projected increases in per capita health-care spending in the U.S. at a CAGR of 4.1% through 2026 will drive prescription claim processing growth.
- The impending merger with Aetna will leave CVS uniquely positioned as an integrated pharmacy/retailer, pharmacy benefit manger, and health insurance company.

Risks to Thesis

- Predicted synergies from merger with Aetna may not be fully realized or take longer than expected to appear.
- Potential disruption to the industry from a company founded by Amazon, Berkshire, and JPMorgan.
- Additional debt will require the cessation of stock buybacks and dividend increases in the near term.

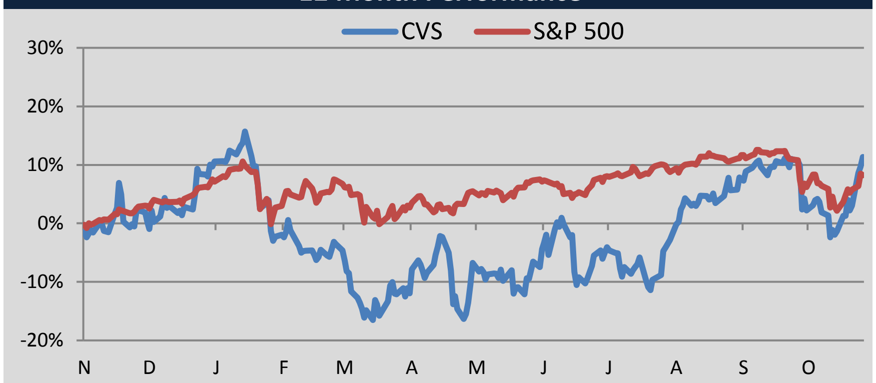
Target Price	$88-92
Henry Fund DCF	$96.00
Henry Fund DDM	$87.27
Relative Multiple	$64.93
Price Data	
Current Price	$79.92
52wk Range	$60.14 – 83.88
Consensus 1yr Target	$91.50
Key Statistics	
Market Cap (B)	$81.8
Shares Outstanding (M)	1,019
Institutional Ownership	82.2%
Beta	1
Dividend Yield	2.5%
Est. 5yr Growth	47.1%
Price/Earnings (TTM)	26.4
Price/Earnings (FY1)	10.9
Price/Sales (TTM)	0.4
Price/Book (mrq)	2.2
Profitability	
Operating Margin	5.41%
Profit Margin	3.58%
Return on Assets (TTM)	6.97%
Return on Equity (TTM)	17.73%



Earnings Estimates

Year	2015	2016	2017	2018E	2019E	2020E
EPS	$4.66	$4.93	$6.47	$0.97	$5.69	$5.84
growth	*17.1%*	*5.8%*	*31.2%*	*85.1%*	*489.6%*	*2.6%*

12 Month Performance



Source: Yahoo Finance

Company Description

CVS is a pharmacy and retail company in the US. The company operates more than 9,800 retail locations, in addition to their 1,100 walk-in clinics. CVS engages in pharmacy benefit services, as well as the sale of prescription drugs and general merchandise. The company has recently received approval to move forward with their acquisition of health insurance provider Aetna.

EXECUTIVE SUMMARY

CVS currently operates as a pharmacy benefit manger (PBM) and a retail pharmacy. This combination has allowed the company to vertically integrate with the segments supporting each other. Now, CVS is about to complete the purchase of Aetna, a large health insurance company. With this purchase, CVS will be able to add an additional level to their vertical integration.

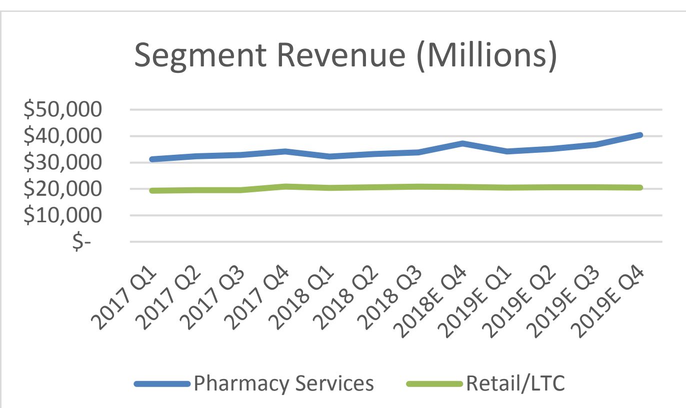
However, if the predicted synergies do not materialize, CVS may find itself with excessively large debt payments that restrict the company from future investment.

On its own, CVS has a PBM business that is forecasted to grow, riding the rising per-capita U.S. health care spending. It also has a retail section that is forecasted to have flat revenue growth as the opening of additional stores is offset by a falling per-store revenue. As the PBM business is roughly three times the size of the retail business by revenue, we are still forecasting overall growth.

The current recommendation is a hold with a valuation of $88-92. This represents a 10 – 15% upside potential.

COMPANY DESCRIPTION

CVS is a U.S. based pharmacy with more than 9,800 retail locations and 1,100 walk-in clinics. CVS was incorporated in Delaware in 1996. The company is headquartered in Rhode Island and currently employs around 243,000 people.[1] The company operates in two main segments: Pharmacy Services and Retail/Long Term Care (LTC).



Source: CVS 10K & HF Model

CVS also reports a third segment, Corporate, which generates no revenue and is used to show corporate specific costs.

Pharmacy Services Segment

The pharmacy services segment of CVS is the company's pharmacy benefits management (PBM) services. In this capacity, CVS works as a third-party administrator of prescription drug plans for various client. The types of clients that would take advantage of this service include private insurers, Medicare Part D plans, and commercial insurance plans. CVS is the second largest PBM in the country by market share.

CVS offers a variety of PBM services.

Designing and administering pharmacy plans. For those insurers that want to utilize the specialized expertise and size of the PBM, CVS will design plans that are intended to minimize costs by encouraging the use of generic drugs and obtaining discounts from drug makes based on volume. CVS is able to use their size and also their formulary management to obtain discounted drug prices. The set formulary, or list of prescription drugs that may be prescribed, allows CVS to negotiate on drug prices based on inclusion or exclusion from this list.

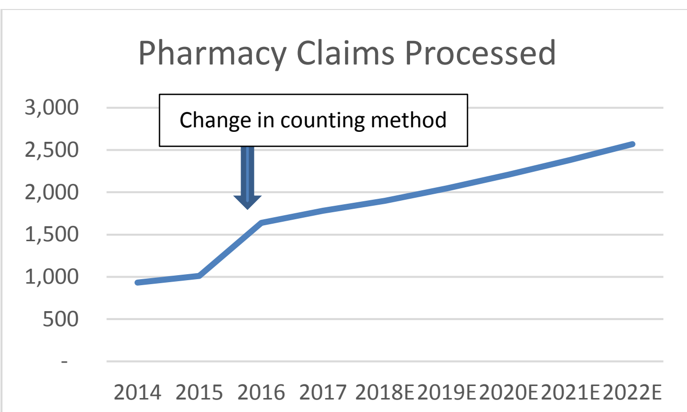
CVS also offers PBM services for Medicare Part D plans. The company offers these plans to individuals that qualify for Medicare Part D and also employer or union health plans that qualify for retiree drug subsidies.

CVS operates a mail order pharmacy service. This service consists of four mail order dispensaries. Patients are able to use this service for maintenance medications. This service is intended to make the refilling of medication for chronic conditions as low-effort as possible for patients, and therefore, improve compliance rates for taking medication.

Additionally, CVS operates specialty pharmacies that focus on complex and expensive drug therapies. The patients for these pharmacies include those with genetic diseases or disorders and those with multiple conditions. CVS has 18 specialty mail order pharmacies (in addition to the mail order pharmacies noted above) and 23 retail specialty pharmacies.

CVS also integrates their retail pharmacy network, as well as other independent pharmacies with their PBM services. In total, this amount to 68,000 retail pharmacies from which patient and prescription data is collected.[1] This allows the PBM to verify plan member data, review drug utilization, and evaluate clinical appropriateness and safety. Further, this data collection allows for improved prescription management. By collecting this data on a single system, CVS is able review drug interactions or allergies, duplicate dispensing, over-utilization, and potential fraud.

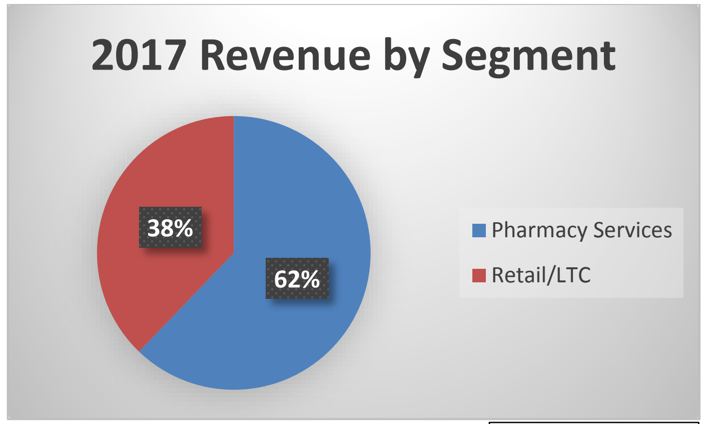
The revenue for this segment is generated the dispensing and managing of prescription drugs to patients who are members of CVS's clients. For this reason, the most effective way to measure revenue for the segment is to look at the profit that each claim brings in. By looking at the historic quarterly revenue per claim, the model is able to forecast future quarters with seasonal accuracy.



Source: CVS 10K & HF Model

Unfortunately, CVS altered the manner in which they count prescriptions in 2016. At that time, CVS began to count claims for 90 days' worth of medication as three claims. Because of this change, no data prior to 2016 is used in the model for forecasting this growth. This historic data was used to find the average growth that occurred in number of claims processed. The same method was used to forecast each quarter's growth in per claim revenue.

This forecast shows a 5.8% CAGR in total revenue growth in this segment across the forecast period.



Source: CVS 10k

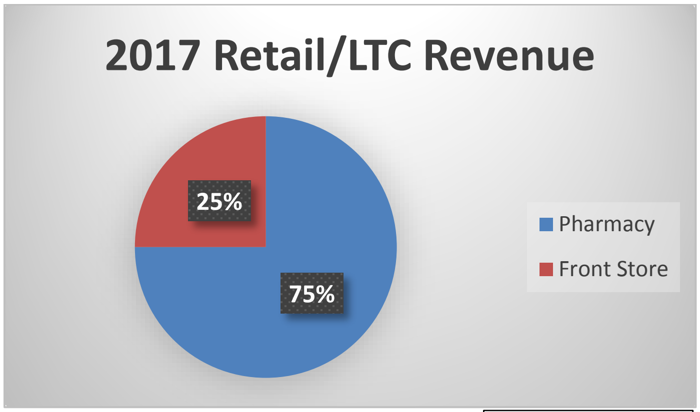
Retail/LTC

The Retail/LTC segment of CVS includes 8,060 stand alone locations, 1,695 pharmacies located inside of Target stores and CVS's retail pharmacy websites. CVS's stores are located in 49 states as well as the District of Columbia, Puerto Rico, and Brazil.

Source: Statista

These stores typically sell prescription drugs and over the counter medications. The stand alone stores also sell a variety of brand name and house label merchandise.

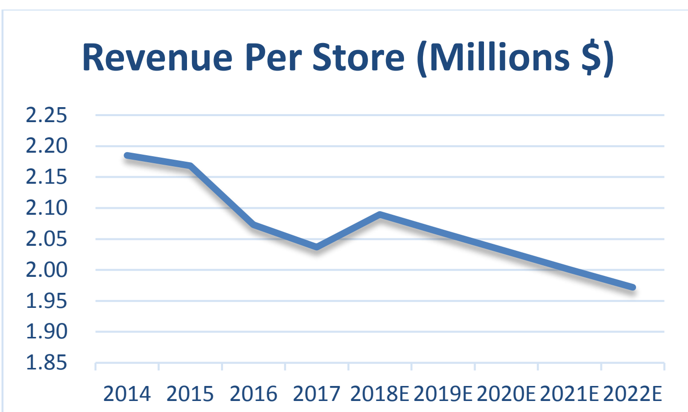
This segment has two revenue streams: Pharmacy and Front store/other.



Source: CVS 10k

Pharmacy sales accounted for around 75% of the revenue from this segment in 2017 and about the same ratio in each of the previous two years.

Also included in this segment are CVS's walk-in clinics, known as MinuteClinics. These locations, around 1,100 in total, are staffed by nurse practitioners and physician assistants who diagnose and treat minor health conditions and provide other routine medical services. These clinics generate 91% of their revenue from insurance plan providers.[1]



Source: CVS 10K & HF Model

For this segment, the most effective measure of profit is revenue per store. This value has dropped since 2014, when it averaged $2.18MM to 2017 where it is averaging $2.04MM. We are expecting the revenue per store to come in at $2.09 MM in 2018. However, by the end of the forecast period in 2022, we are estimating that this value has dropped to $1.97MM. This will be partially offset by an increased number of stores over the time period. In total, we are expecting a CAGR of -0.5% in total revenue for this segment across the forecast period.

Company Analysis

As the revenue from the Pharmacy Services segment grows and the Retail/LTC revenue remains flat, CVS's ability to effectively conduct its PBM business will become ever more important. For this to occur, the company will need to effectively negotiate with pharmaceutical companies for discounted prices. This will allow CVS to attract customers with savings. However, the discounts need to be significant enough that CVS can retain a portion of the savings as profit.

To this purpose, CVS is uniquely well positioned. When compared to a pure PBM such as Express Scripts, CVS has an advantage of being able to have more physical contact with patients and therefore provide additional low-cost medical care such as what they can do with their walk-in clinics. This presence allows CVS to offer their customers the ability to have their members seen by in-house medical professionals for many routine medical procedures and keep the patients out of more expensive medical treatment facilities.

Compared to a traditional pharmacy/retail competitor, CVS's PBM business provides advantages in terms of data collection and aggregation. Also, the PBM's business provides a natural hedge against to increased sale of lower cost generic drugs. While the lower cost decreases revenue in the Retail/LTC segment, it assists the Pharmacy Services segment increase margins and be more attractive to customers.

Merger with Aetna

In late 2017, CVS announced plans to purchase the health insurance company Aetna. While this deal is not finalized, CVS management has announced that they expect the deal to be completed by Thanksgiving, 2018. The companies have received approval from both of their shareholders as well as the Department of Justice. Only five states remain for the companies to receive approval from.[2]

Aetna is the third largest insurance company in the U.S. and had 2017 revenue of around $60 billion. Aetna primarily competes in the Health and Medical Insurance sector where they have a 7% market share.[15] The company provides a variety of health insurance products to 46 million people.

Aetna Financial Results

In Billions (except EPS)	2014	2015	2016	2017
Revenue	58.0	60.4	63.2	60.5
Net Income	2.0	2.4	2.3	1.9
EPS	5.68	6.78	6.41	5.68

Source: FactSet

The purchase amount was for $207 per share which will come in the form of $145 cash and $62 in CVS stock. This amount represented a premium of around 30% for the share price of Aetna prior to the announcement. At the announcement, the companies suggested that the combination of Aetna's data and CVS's retail expertise would allow the combined company to control rising healthcare costs.

Components of care delivery model

	Access to care	Patient engagement	Alignment across providers	Post-discharge
Pain points in current model	Inconvenient and inaccessible health care delivery system	Insufficient time to fully manage patient population	Lack of coordination to address gaps in care/ unaligned incentives	Lack of support after a medical event
Ways CVS Health + Aetna can improve	Convenient locations and "last mile" presence In-home and local community-based care	New forms of patient interactions to supplement physician office visits Enhanced consumer experience	Value-based provider relationships Combined pharmacy and medical data – single source for patient records	Transitions of care, along with care coaches /pharmacists and other programs

Source: CVS merger announcement presentation

We feel that this move has more to do with limited growth opportunities through acquisitions in the PBM space. Any attempt by CVS to acquire another PBM would likely have been blocked by regulators on anti-trust grounds. Therefore, CVS looked to related but separate areas of health-care delivery for possible acquisitions. When the deal did receive approval from the Justice Department in October of 2018, one of the conditions was the divestiture of overlapping business areas by Aetna, notably their Medicare part D business.[16]

On its face, we find this acquisition to be a good opportunity for CVS. Adding an insurance company provides CVS with an additional complimentary piece that makes them a uniquely vertically integrated company in this industry. CVS management has stated that they expect to realize $750MM of synergies from combining the companies starting in year two.[2] However, the cost of the acquisition must be examined as well.

In order to accomplish this purchase, CVS is using a mixture of available cash, new debt and new equity. The new debt will issued will total $44.8B. The new equity issued will total $21B and come in the form of 285 million new shares of CVS stock.[2]

CVS Shares Outstanding (Millions)

Shares Out Standing	Increase	New Total	% Increase
1,014	285	1,299	28%

Source: CVS Merger Press Release

Effects of New Debt

Additional Debt ($B)	Cost of Debt Adjusted for Taxes	Assumed Additional Annual Interest Payments ($B)
$44.80	4.08%	$1.83

Source: CVS Merger Press Release & HF Model

While the dilution of equity and additional debt for a deal this size are potentially problematic, we feel that CVS has the financial strength to absorb the additional interest payments and pay down the debt in a timely fashion. The assumed additional interest payments represent around 15% of CVS's 2017 EBITA. We feel that this is well within an acceptable range and that is without even considering $6.2B in EBITA that Aetna generated in 2017. With nearly a year to plan the acquisition and a stated goal of delevering, we are confident that CVS management will be able to return the company to a more normal debt ratio.

RECENT DEVELOPMENTS

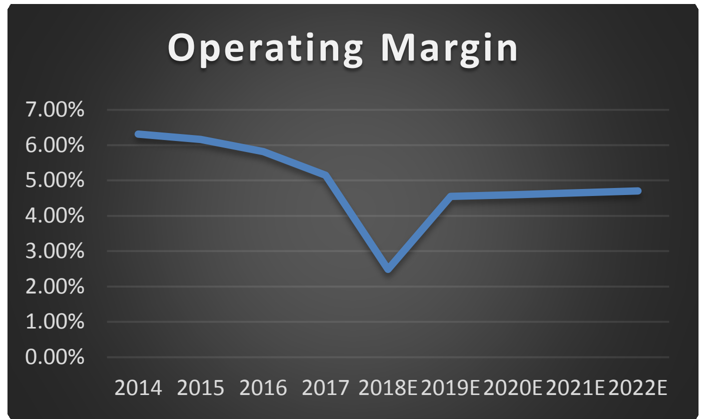
2018 Q3 Results

CVS released their third quarter results on November 6th. The company reported an adjusted EPS of $1.73 which beat the consensus estimates of $1.71. The GAAP EPS reported was $1.36. Management stated that this result was at the high end of their projections and were driven by a lowered effective tax rate as well as lower net interest expense.

Additionally, CVS reported that through the third quarter they had generated $4.9B in free cash flow. The expectation from management for the full year in free cash flow is around $7B.

Regarding debt, CVS announced that they had retired $2.25B in of senior notes that were at maturity. Regarding the future debt structure, management stated that the leverage ratio will spike to around 4.6 with the additional debt from the Aetna deal. They also reaffirmed their position that lowering this ratio is a high priority. Management has stated that they intend to lower the ratio to around 3.5 within the next two years. Our model has this occurring by the cessation of stock buy backs over the first two years of the forecast, before resuming in 2020 time period. Also, dividends will not be increased over the same period.

The operating profit and operating margin were both down from the previous year. The operating profit declined 3.5% while operating margin decreased 0.3%. This decline was attribute to additional investment and pricing and reimbursement pressure. This will leave an unadjusted operating margin well below historic averages due to large non-reoccurring events as CVS writes off goodwill and invests funds from the 2017 tax cut.



Source: CVS 10K & HF Model

By segment, CVS reported that their PBM business improved gross margins by 0.2% while the Retail/LTC sector saw their gross margins contract by 1.2%.[2] This is a trend that we expect to continue, as the PBM business continues to generate better margins while the retail portion of CVS shows lower or flat margins each year.

Amazon, Berkshire Hathaway, and JPMorgan

In 2018, Amazon, Berkshire Hathaway and JPMorgan announced that they intend to form a company to reduce their employees' health care costs. The proposed company would use technological solutions and a lack of profit-making incentives to provide simplified, lower cost health care to the over one million employees of these firms.[4] The document that announced the plan specifically called out the health care costs that are associated with intermediaries in the health-care delivery chain. CVS's two main activities, PBMs and pharmacies, are both identified as areas where costs can be reduced.

In June of 2018, the companies announced a CEO to lead their new company (still unnamed). Dr. Atul Gawande was selected for the role. He is an author, surgeon, and a professor at Harvard.[5]

Should this venture become a success, it is a model that will likely be copied by other employers and insurance companies. However, regardless of the talent and financial resources of the founders, there is deep skepticism of the ability of this company to alter the American health-care delivery system. Critics point to the fractured nature of the current system as well as the entrenched interests as reasons why change will likely be limited or not occur in the near term.

Delivery Services Added

In June of 2018, CVS announced that they are now able to deliver prescription medications to customers mailboxes. Additionally, customers can order over-the-counter medication or other front of house merchandise online for home delivery . The orders can be placed by calling a store, or through a CVS app. These orders are separate from the mail order pharmacies that CVS operates as part of their PBM business.

With their new model, CVS is able to provide two-day delivery nationwide and same-day delivery in select markets.[8] This is possible as CVS has signed a deal with the USPS to provide the delivery service by picking up the packages from the CVS store.

While data on the success of this program is not yet available, it does show that CVS is attempting to compete with omni-channel offerings that are more attractive to younger shoppers. However, this option may result in fewer customers coming into stores to pick up medications and thereby reduce merchandise sales.

INDUSTRY TRENDS

Consolidation

CVS and Aetna are not the only healthcare companies that have merged or been acquired recently. Consolidation has occurred across the healthcare industry as companies try to capture more market share or improve margins with synergies.

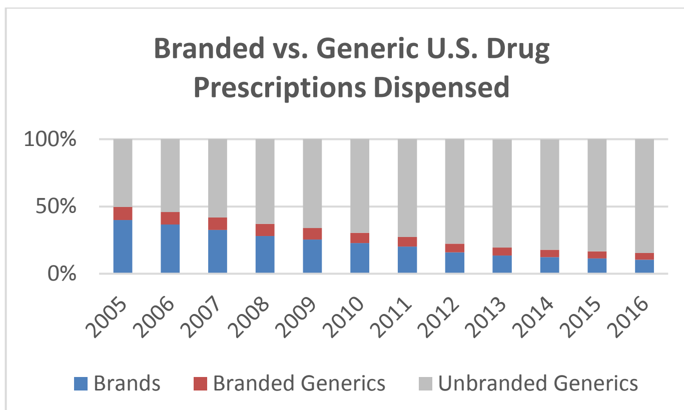
In September of 2018, the U.S. Department of Justice approved the $52B purchase of the PBM Express Scripts by the health insurance company Cigna. The stated purpose of the merger is to lower inpatient and emergency room use and to better coordinate case management programs. The companies have stated that by combining medical data, they will be able to deliver less costly chronic disease management and reduce the complexity that patients face when receiving healthcare. [9]

In June of 2018, Amazon purchased PillPack Inc. The $1B purchase allows Amazon to ship prescription drugs directly to consumers in 49 states. PillPack specializes in delivering pre-sorted monthly supplies of medications to consumers.

Other deals have been proposed but not completed. In early 2018, reports appeared that Walgreens would be purchasing a majority stake in AmerisourceBergen. However, no deal was reached between the two. Also, Rite Aid has had two merger deals fall through recently, with Walgreens in 2017 and grocery chain Albertsons in 2018.[10]

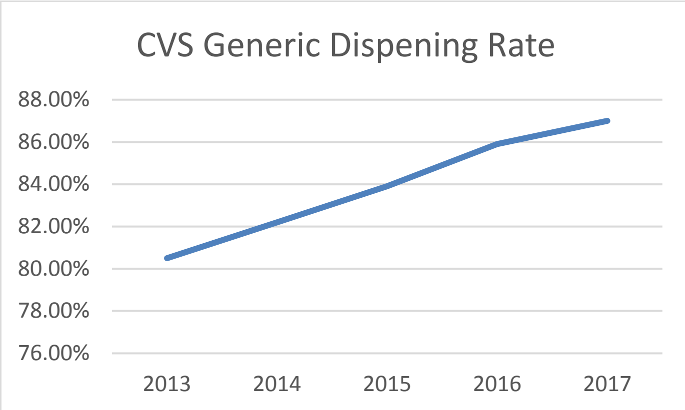
Use of Generics

The use of generic drugs has increased among American consumers as they provide a lower cost option to receive the same medication and dosage as much more highly priced branded drugs. As patents continue to expire on current blockbuster drugs, this trend is expected to continue.



Source: Statista

Generics are preferred by PBMs such as CVS as they lower prescription costs for patients. PBMs actively look to move patients from branded drugs to generics whenever possible. With generics, PBMs do not face the same price pressures as they do from branded drugs and often have several manufactures from which to choose.



Source: CVS 10K

However, CVS notes that while generic drugs tend to provide a higher gross profit than branded drugs, recent developments in regulation and litigation may reduce the profitability that they are able to capture from dispensing generic drugs.[1] Finally, while generics have a higher gross margin than branded drugs, they are sold at a much lower cost, which can place a drag on gross revenue growth.

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. In February of 2018, CVS announced that it would raise its starting hourly wage to $11 from $9. It also announced that it would increase pay for other retail workers, although it did not provide specifics on amount.[7] CVS is not alone in this trend. Other business that compete for low-skill retail workers have made similar moves. 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.[6]

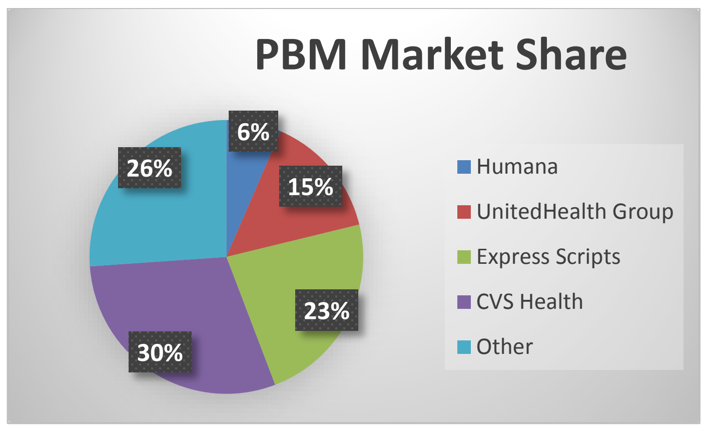
As long as the labor market in the U.S. remains tight, the industry can expect to see higher costs in terms of wages and other employee benefits as companies compete with each other and outside employers for labor.

MARKETS AND COMPETITION

CVS operates in two major markets in the United States: Pharmacy Benefit Management and Pharmacy and Drug Stores.

Pharmacy and Benefit Management

The pharmacy and benefit management industry operates with heavy regulation and a concentration of companies. This industry is subject to both Federal and State laws regarding providing drug benefits and mailing prescriptions to consumers among other areas. Pharmacies are regulated at the state level but must also register with the U.S. Drug Enforcement Administration. The concentration level of the industry is high with the three largest PBMs accounting for around 70% of the market.[11]

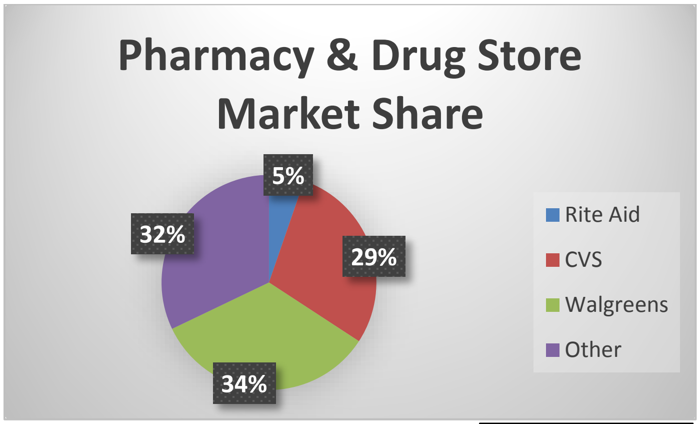


Source: IBIS World

Barriers to entry in this industry include the high regulation hurdles mentioned above, the ability to employ credible professionals, and the need for storage and shipping capabilities to dispense medication at a cost-effective rate.

Pharmacy and Drug Stores

The other industry that CVS competes in is the pharmacy and drug store franchise industry. Companies in this sector sell prescriptions and over-the-counter medication along with general merchandise. This sector is dependent on consumer disposable income as well as the number of people that are covered by private insurance or Medicare and Medicaid. This is a mature industry with a high level of competition. The revenue for this industry grew at an annual rate of 2.6% from 2013-2018 and is expected to grow at an annual rate of 2.4% from 2018-2023.[12]



Source: IBIS World

Peer Comparisons

CVS competes with other PBMs and retail pharmacies. Its major competitors are Humana (HUM), UnitedHealth Group (UNH), Express Scripts (ESRX), Walgreens Boots Alliance (WBA), and Rite Aid (RAD).

In billions $	2017 Sales	Market Cap	2017 Net Income
HUM	52.3	43.9	2.4
UNH	201.2	254.9	10.6
ESRX	100.3	54.4	4.5
CVS	184.8	81.4	6.6
WBA	118.2	77.3	4.1
RAD	21.5	1.4	-0.35

Source: FactSet

Rite Aid

As shown in the chart above, Rite Aid is the smallest of CVS's competitors by sales, market cap, and net income. Rite Aid is the third largest drugstore chain in the U.S. It has around 2,500 locations across 19 states. Rite Aid was previously much larger, however it sold 2,000 stores to Walgreens in 2017.[12] As noted earlier, Rite Aid has been involved in two failed mergers in the last two years. The more recent, an acquisition of Rite Aid by the grocer Albertsons, was voted down by Rite Aid shareholders. This vote shows that Rite Aid's management has lost the trust of both institutional and individual investors. This led to the September announcement of three new board members and the separation of the chairman and CEO position.

Year end 2017	Operating Margin	Inventory Turn	Same Store Sales
CVS	5.41%	10.4	-2.60%
WBA	4.79%	11.1	-2.60%
RAD	0.60%	7.2	-2.90%

Source: FactSet

Walgreens Boots Alliance

Walgreens is the largest company in the Retail Pharmacy sector. It has around 12,800 stores and, unlike CVS, operates internationally with a presence in 11 countries. As can be seen from the chart above, Walgreens performs within the same ranges as CVS. However, Walgreens sold its PBM business off in 2011 in order to focus more on its pharmacy services.[12] With the changes that have occurred to the health care industry since 2011, we feel that this puts them at a disadvantage to CVS and exposes them to additional price pressures from having to use an outside PBM. Still, Walgreens size and international presence make it a major player in the healthcare space and it would not be surprising to see Walgreens involved in additional mergers or acquisitions in the near term.

Year end 2017	P/E	ROA	P/BV
HUM	14.76	9.18%	3.47
UNH	20.57	7.94%	4.47
ESRX	9.64	8.52%	2.32
CVS	11.26	6.97%	1.95

Source: FactSet

Humana

Humana is an American insurance company that focuses on Medicare. It has over twenty million members enrolled through its various products.[11] Humana participates in the sector through its healthcare services segment. Humana is the smallest of the PBMs listed, but enjoys the highest ROA without having an excessively high P/E. Talks of a merger with Walmart have surrounded Humana in 2018 but as of yet, there have been no formal announcements.

Year end 2017	Current Ratio	Quick Ratio	Cash Ratio
ESRX	0.67	0.55	
CVS	1.02	0.52	
WBA	0.82	0.38	
RAD	1.37	0.85	

Source: FactSet

Express Scripts

Express Scripts is the nation's largest PBM. They process over 1 billion scripts per year. Express Scripts provides PBM services for several large clients such as the Department of Defense and Walmart. They are currently the only standalone PBM in the country. This will change once they are purchased by Cigna. The purchase price offered represented a 31% premium over Express Script's share price at the time the offer was tendered in March of 2018.[13] Express Script's share price has since risen to match the offer as the purchase became more certain.

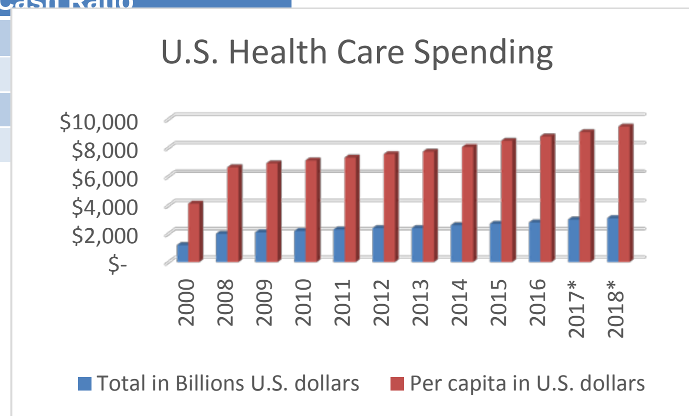
UnitedHealth Group

UnitedHealth Group is an American insurance company that operates in this sector through their subsidiary OptumRx. United Health is the largest company with a market cap of over $250B. As a part of the largest insurance company in America, OptumRx has proven able to generate substantial volume. This PBM oversees over 120 million individual members and filled 1.3 billion scripts in 2017.[11] Optum health has become UnitedHealth has the fastest growing segment. This may explain why UNH has the sector's highest P/E ratio.

ECONOMIC OUTLOOK

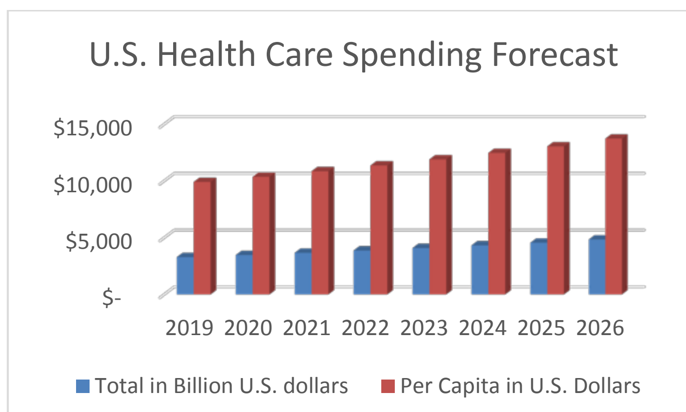
Health Care Spending

Health care spending has increased dramatically over the last decade. The data shows a CAGR of 3.2% from 2008 through 2016.



Source: Centers for Medicare & Medicaid Spending

This is a trend that is not expected to change in the near future. Forecasts from the U.S. Government's Centers for Medicare and Medicaid Spending predict per capita healthcare spending to increase at a CAGR of 4.1% from 2019 to 2026.



Source: Centers for Medicare & Medicaid Spending

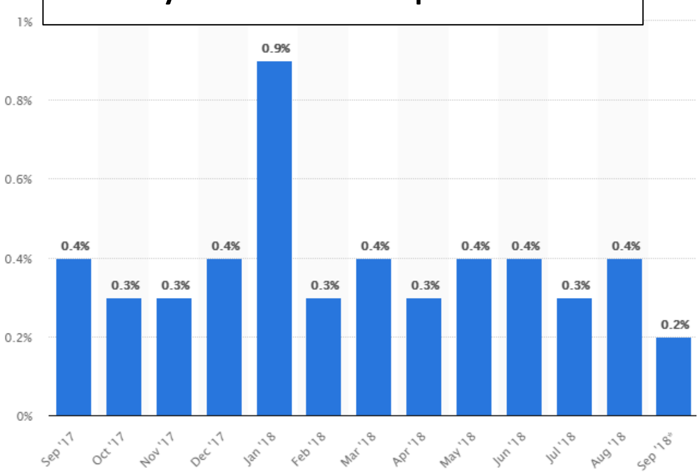
This is based on current law, and political pressures to reduce the spending on health care may alter these projections in coming years based on a variety of proposals.

The growth of per capita spending drives our forecast for revenue growth at a CAGR of 5.8% in the Pharmacy Services segment for the forecasted period. We have modeled a significant growth in number of claims processed which is enough to overcome relatively flat numbers in per-claim revenue. Per-claim revenue is held flat on the assumption that competition and political pressures will keep margins from expanding greatly.

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.

Monthly Increase in US Disposable Income



Source: Statista

Disposable income in the U.S. 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.[3] We expect to see this trend to continue with wage growth outpacing inflation for most workers. We expect that CVS's retail merchandise will see a strong 4Q as long as wages continue to match or exceed inflation. Going forward, strong disposable income numbers will be key for CVS to not lose its merchandise customers to retailers who compete on price, such as Walmart or Dollar Stores, given that we already expect that margins for this segment will be contracting.

CATALYSTS FOR GROWTH

The successful completion of the Aetna acquisition and smooth integration will be key for CVS in the near term. After paying a significant premium for Aetna, synergies will need to be realized as soon as possible to ensure sufficient cash flow to reduce debt levels to that do not threaten future investments. Should CVS accomplish this, they will be uniquely positioned in their industry as a fully integrated insurance, PBM, and retail pharmacy company.

INVESTMENT POSITIVES

- CVS has proven that they can generate enough cash flow to repay the large debt that they took on to purchase Aetna.
- Expected increases in per-capita health care spending will drive additional business for CVS's PBM business.
- Even prior to the Aetna acquisition, CVS possessed a vertically integrated structure that had multiple touch points with patients which allowing for more managed patient care.

INVESTMENT NEGATIVES

- Prioritizing debt reduction will leave CVS with less cashflow available to return to shareholders through stock buybacks or dividend increases.
- Consolidation by rivals and market entry by the company backed by Amazon, Berkshire Hathaway, and JPMorgan threaten CVS's ability to continue with their current model while working through the merge with Aetna
- Management's predicted synergies may prove to be less valuable than predicted or may not emerge at all.
- Decreasing margins in the Retail/LTC segment will cause a drag on earnings

VALUATION

For this report, three models were created to provide an estimate of value. The Relative P/E model returned a value of $64.93. However, we do not feel that this is an accurate representation of the company's value. There are a number of one-time events that CVS has experienced that are currently pushing down the P/E ratio. As the model uses GAAP standards, this method is not accurate when large, non-reoccurring events happen. If the adjusted EPS of $7.03 is used, the value returned is over $100. This is due to the inclusion of certain insurance companies in the model, which generally have higher P/E ratios than pharmacies.

The Dividend Discount Model was also used to value the company. This model returned a value of $87.27. This model returned a price slightly higher than the current stock price. CVS has been consistent with raising their dividend in the past. While the company has announced that they will not be raising the dividend until the newly acquired debt is reduced, we feel that the dividend can be expected to rise again within the next two to three years. This model has the dividend beginning to rise modestly in 2020.

Finally, the DCF model returned a value of $92.57. This value is an adjusted value based on the new debt and additional shares that CVS will be adding upon the completion of the Aetna deal. To make this adjustment, the 285MM new shares were added to the existing share count and the $44B in new debt was subtracted from the enterprise value. While this is a rather rudimentary calculation of the effect on the Aetna deal, we believe that it does show that the stock has enough underlying value to be worth continuing to hold. As this adjustment does not allow for any of Aetna's cash flow to work to pay off debt, it is a worst-case scenario type approach. Even so, the company still retains modest upside.

To complete the model many assumptions were made. Some of the most important are as follows.

- The forecasting for this model's revenue was done by quarter. This assumes that previous quarterly trends were seasonal and not related to other one-time or longer-term events. If that is the case, the estimated growth will not be accurate for more than a few quarters.
- The recent trend of decreasing per store revenue will continue in the near term. This leads to the model showing revenue decreasing by around 0.5%-0.6% each year after 2018. Should CVS be able to increase their per store profitability, the model would be undervaluing the company. On the other hand, if this trend is not strong enough, the model is returning a higher value than will be realized.
- A marginal tax rate of 25.1% was used based on historic state taxes and the new federal corporate tax rate. If CVS is able to reduce their tax obligations, they will have additional cash flow to return to shareholders or otherwise invest.
- The average cost of revenue was forecasted based on historic averages by quarter. CVS's management has stated that they are undertaking initiatives to improve this ratio. If these are successful, CVS may see increased profit margins. Another possibility is that further wage increases will be needed to be competitive for the retail workers that CVS employs at its stores, which would increase this ratio.
- The revenue per claim for the PBM business is modeled to remain flat. While an increase in higher margin generic drugs is expected, we feel that additional price pressures will force CVS to pass most of this change along to the patients, leaving the growth in this section to come from an increase in the number of prescriptions filled.
- CVS reports intersection elimination that occurs when revenue qualifies for both segments. This was forecasted to continue to be 13% of total revenue, which is a historical norm.

KEYS TO MONITOR

Further consolidation in the PMB space may provide CVS with additional competition as other companies seek to better vertically integrate their health care delivery.

The company formed by Amazon, Berkshire Hathaway, and JPMorgan should begin to take shape in the near future. This company's strategy and success could have an outsized impact on the market given the interest in the backers.

Changes to laws could have material impacts on CVS in a variety of ways (e.g. individuals insured rates, rates of reimbursement from Medicare & Medicaid, or prices on generic drugs).

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IMPORTANT DISCLAIMER

CVS

Key Assumptions of Valuation Model

Ticker Symbol	CVS
Current Share Price	$79.91
Current Model Date	11/1/2018
Fiscal Year End	**Dec. 31**
Pre-Tax Cost of Debt	4.08%
Beta	1
Risk-Free Rate	3.16%
Equity Risk Premium	4.80%
CV Growth of NOPLAT	3.0%
CV Growth of EPS	3.5%
Current Dividend Yield	1.05%
Marginal Tax Rate	25.1%

Pharmacy Services	76,208	88,440	100,363	119,963	130,596	136,375	146,387	157,162	168,760	181,246
		16%	13%	20%	9%	4%	7%	7%	7%	7%
Retail/LTC	65,618	67,798	72,007	81,100	79,398	82,668	82233	81761	81289	80815
		3.3%	6.2%	12.6%	-2.1%	4.1%	-0.5%	-0.6%	-0.6%	-0.6%
Intersectional Elimination		(16,871)	(19,080)	177,526	(25,229)	(29,039)	(29,721)	(31,060)	(32,506)	(34,068)
Total		**139,367**	**153,290**	**177,526**	**184,765**	**190,004**	**198,900**	**207,863**	**217,542**	**227,993**
Total Stores	7702	7866	9665	9750	9846	9927	10,015	10,103	10,191	10,279
Growth		2.1%	22.9%	0.9%	1.0%	0.82%	0.89%	0.88%	0.87%	0.86%
Pharmacy Claims Processed	902	932	1012	1639	1782	1898	2047	2208	2382	2570
		3.3%	8.6%	62.0%	8.7%					

CVS
Income Statement
(in Millions)

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018E	2019E	2020E	2021E	2022E
Net revenues	126761	139367	153290	177526	184765	190004	198900	207863	217542	227993
Cost of revenues	102978	114000	126762	148669	156220	158594	165277	172729	180775	189464
Gross profit (loss)	23783	25367	26528	28857	28545	28773	30700	32186	33792	35529
Operating expenses	15746	16568	17074	18519	19028	24048	21652	22625	23675	24809
Operating profit (loss)	8037	8799	9454	10338	9517	4725	9048	9561	10117	10719
Interest expense (income), net	509	600	838	1058	1041	1854	1253	1518	1453	1526
Gain (loss) on early extinguishment of debt	0	-521	0	-643	0	0	0	0	0	0
Other income (expense)	0	0	0	0	208	7	0	0	0	0
Income (loss) before income tax provision (benefit)	7528	7678	8616	8637	8268	2864	7795	8043	8663	9193
Income tax provision (benefit)	2928	3033	3386	3317	1637	1870	1957	2019	2175	2308
Income (loss) from continuing operations	4600	4645	5230	5320	6631	994	5838	6024	6489	6886
Income (loss) from discontinued operations, net of tax	-8	-1	9	-1	-8	-1	0	0	0	0
Net income (loss)	4592	4644	5239	5319	6623	993	5838	6024	6489	6886
Net income (loss) attributable to noncontrolling interest	0	0	-2	-2	-1	0	0	0	0	0
Net income attributable to CVS Health Corporation	4592	4644	5237	5317	6622	993	5838	6024	6489	6886
Year end shares outstanding	1180	1140	1101	1061	1014	1305	1310	1273	1237	1201
Net income (loss) per share 0 basic	3.77	3.98	4.66	4.93	6.47	0.72	4.46	4.73	5.24	5.73
Dividends declared per share	0.9	1.1	1.4	1.7	2	2.0	2.0	2.2	2.4	2.6

CVS

Income Statement

(in Millions)

Fiscal Years Ending Dec. 31	2017	2017	2017	2017	2018	2018	2018	2018E	2019E	2019E	2019E	2019E	2020E	2020E	2020E	2022E
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Net revenues	44514	45685	46181	48385	45693	46708	47269	50,334	47,571	48,493	49,829	53,006	49,416	50,160	52,359	62,604
Cost of revenues	37315	38127	38440	39859	38190	38860	39321	42,223	39,661	40,087	41,065	44,464	41,199	41,465	43,150	52,515
Depreciation and Amortization	619	623	615	622	644	647	620	727	728	730	732	733	735	736	738	752
Gross profit (loss)	6580	6935	7126	7904	6859	7201	7328	7,385	7,182	7,677	8,032	7,809	7,482	7,959	8,471	9,336
Operating expenses	4787	4818	4627	4796	4913	8788	4975	5,372	5,248	5,364	5,382	5,657	5,452	5,549	5,656	6,682
Operating profit (loss)	1793	2117	2499	3108	1946	-1587	2353	2,013	1,934	2,312	2,650	2,152	2,031	2,410	2,816	2,655
Interest expense (income), net	252	247	245	297	473	475	453	453	313	313	313	313	380	380	380	381
Gain (loss) on early extinguishment of debt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other income (expense)	7	7	192	2	3	3	1	0	0	0	0	0	0	0	0	0
Income (loss) before income tax provision (benefit)	1534	1863	2062	2809	1470	-2065	1,899	1,560	1,621	1,999	2,337	1,838	1,651	2,031	2,436	2,273
Income tax provision (benefit)	572	766	777	-478	472	497	509	392	407	502	587	461	414	510	611	571
Income (loss) from continuing operations	962	1097	1285	3287	998	-2562	1390	1,168	1,214	1,497	1,750	1,377	1,237	1,521	1,825	1,703
Income (loss) from discontinued operations, net of tax	-9	1	0	0	0	-1	0	0	0	0	0	0	0	0	0	0
Net income (loss)	953	1098	1285	3287	998	-2563	1390	1,168	1,214	1,497	1,750	1,377	1,237	1,521	1,825	1,703
Net income (loss) attributable to noncontrolling interest	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net income attributable to CVS Health Corporation	952	1098	1285	3287	998	-2563	1390	1,168	1,214	1,497	1,750	1,377	1,237	1,521	1,825	1,703
Year end shares outstanding	1027	1015	1013	1014	1016	1017	1,022	1,305	1,310	1,310	1,310	1,310	1,273	1,273	1,273	1,201
Net income (loss) per share 0 basic	0.92	1.07	1.26	3.23	0.98	-2.52	1.36	0.90	0.93	1.14	1.34	1.05	0.97	1.19	1.43	1.42
Dividends declared per share	0.5	0.5	0.5	0.5	0.5	0.5	0.50	0.50	0.50	0.50	0.50	0.50	0.55	0.55	0.55	0.65

CVS

Balance Sheet

(in Millions)

Fiscal Years Ending Dec. 31	2015	2016	2017	2018E	2019E	2020E	2021E	2022E
Cash & cash equivalents A	2459	3371	1696	(155)	2,986	2,110	1,481	1,167
Short-term investments A	88	87	111	114	119	125	131	137
Accounts receivable, net A	11888	12164	13181	13,629	14,267	14,910	15,604	16,354
Inventories A	14001	14760	15296	16,287	17,049	17,817	18,647	19,543
Deferred income taxes A	1220	0	0	0	0	0	0	0
Other current assets A	722	660	945	938	982	1,027	1,074	1,126
Total current assets	30378	31042	31229	30,813	35,404	35,989	36,938	38,327
Property & equipment, net A	9855	10175	10292	10,909	11,339	11,843	12,425	13,088
Goodwill A	38106	38249	38451	38,451	38,451	38,451	38,451	38,451
Intangible assets, net A	13878	13511	13630	13,934	14,586	15,244	15,954	16,720
Other assets A	1440	1485	1529	1,653	1,730	1,808	1,893	1,984
Total assets	93657	94462	95131	95,760	101,510	103,336	105,660	108,570
Accounts payable L	7490	7946	8863	8,957	9,376	9,799	10,255	10,748
Claims & discounts payable L	7653	9451	10355	10,649	11,147	11,650	12,192	12,778
Accrued expenses L	6829	6937	6609	6,796	7,115	7,435	7,781	8,155
Short term debt L	0	1874	1276	1,084	1,135	1,186	1,242	1,301
Current portion of long-term debt L	1197	42	3545	4,821	873	2,775	2,327	3,178
Total current liabilities	23169	26250	30648	32,308	29,646	32,845	33,797	36,160
Long-term debt L	26267	25615	22181	22,151	26,832	25,690	26,968	27,024
Deferred income taxes L	5437	4214	2996	3131	3266	3401	3536	3671
Other long-term liabilities L	1542	1549	1611	1,657	1,734	1,812	1,897	1,988
Total Liabilities	56415	57628	57436	59,246	61,479	63,748	66,199	68,843
Redeemable noncontrolling interest	39	0	0	0	0	0	0	0
Common stock, Trust & Capital Surplus	30934	31604	32065	32,071	32,076	32,082	32,086	32,086
Treasury stock, at cost	28886	33452	37765	37,765	37,765	41,765	45,765	49,765
Retained earnings	35506	38983	43556	42,369	45,881	49,431	53,302	57,567.54
Accumulated other comprehensive income (loss)	-358	-305	-165	-165	-165	-165	-165	-165
Total CVS Health Corporation shareholders' equity	37196	36830	37691	36,510	40,027	39,583	39,458	39,723
Noncontrolling interest	7	4	4	4	4	4	4	4
Total shareholders' equity	37203	36834	37695	36,514	40,031	39,587	39,462	39,727
				95,760	101,510	103,336	105,660	108,570

CVS

Cash Flow Statement

(in Millions)

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017
Cash flows from operating activities					
Cash receipts from customers	114993	132406	148954	172310	176594
Cash paid for inventory & prescriptions dispensed by retail network pharmacies	-91178	-105362	-122498	-142511	-149279
Cash paid to other suppliers & employees	-14295	-15344	-14162	-15550	-15348
Interest received	8	15	21	20	21
Interest paid	-534	-647	-629	-1140	-1072
Income taxes paid	-3211	-2931	-3274	-3060	-2909
Net cash flows from operating activities	5783	8137	8412	10069	8007
Cash Flows from investing activities					
Purchases of property & equipment	-1984	-2136	-2367	-2224	-1918
Proceeds from sale-leaseback transactions	600	515	411	230	265
Proceeds from sale of property & equipment & other assets	54	11	35	37	33
Acquisitions (net of cash acquired) & other investments	-415	-2439	-11475	-539	-1287
Purchase of available-for-sale investments	-226	-157	-267	-65	-86
Maturity of available-for-sale investments	136	161	243	91	61
Net cash flows from investing activities	-1835	-4045	-13420	-2470	-2932
Cash Flows from financing activities					
Increase (decrease) in short-term debt	-690	685	-685	1874	-598
Proceeds from issuance of long-term debt	3964	1483	14805	3455	-
Repayments of long-term debt	-	-3100	-2902	-5943	-
Purchase of noncontrolling interest in subsidiary	-	-	-	-39	-
Payment of contingent consideration	-	-	-58	-26	-
Dividends paid	-1097	-1288	-1576	-1840	-2049
Proceeds from exercise of stock options	500	421	299	224	329
Excess tax benefits from stock based compensation	62	106	127	72	71
Repurchase of common stock	-3976	-4001	-5001	-4461	-4361
Other cash flows from financing activities	-	-	-3	-5	-1
Net cash flows from financing activities	-1237	-5694	5006	-6689	-6751
Effect of exchange rate changes on cash and cash equivalents	3	-6	-20	2	1
Net increase (decrease) in cash & cash equivalents	2714	-1608	-22	912	-1675
Cash & cash equivalents at the beginning of the year	1375	4089	2481	2459	3371
Cash & cash equivalents at the end of the year	4089	2481	2459	3371	1696
Reconciliation of net income to net cash provided by operating activities					
Net income	4592	4644	5239	5319	6623
Depreciation & amortization	1870	1931	2092	2475	2479
Goodwill impairments	-	-	-	-	181
Losses on settlements of defined benefit pension plans	-	-	-	-	187
Stock-based compensation	141	165	230	222	234
Loss on early extinguishment of debt	-	521	-	643	-
Deferred income taxes	-	-	-	-	-1334
Other noncash items	-	-	-	-	53
Deferred income taxes & other noncash items	-86	-58	-266	153	-
Accounts receivable, net	-2210	-737	-1594	-243	-941
Inventories	12	-770	-1141	-742	-514
Other current assets	105	-383	355	35	-341
Other assets	-135	9	2	-43	3
Accounts payable & claims & discounts payable	1024	1742	2834	2189	1710
Accrued expenses	471	1060	765	59	-371
Other long-term liabilities	-1	13	-104	2	38
Net cash flows from operating activities	5783	8137	8412	10069	8007

CVS

Cash Flow Statement

In Millions

Fiscal Years Ending Dec. 31	2018E	2019E	2020E	2021E	2022E
Net Income	993	5,838	6,024	6,489	6,886
Depreciation & Amortization	2,638	2,923	2,949	2,974	3,000
Change in Accounts Receivable, net A	(448)	(638)	(643)	(694)	(750)
Change in Inventories A	(991)	(762)	(768)	(830)	(896)
Change in Other current Assets A	7	(44)	(44)	(48)	(52)
Change in Accounts Payable L	94	419	423	456	493
Change in Claims & Discounts Payable L	294	499	502	542	586
Change in Accrued Expenses L	187	318	321	346	374
Change in Deferred Income Taxes L	135	135	135	135	135
Net Operating Cash Flow	**2,909**	**8,688**	**8,898**	**9,371**	**9,776**
Change in Short-term Investments A	-3	-5	-5	-6	-6
CapEx	-3255	-3352	-3453	-3557	-3663
Change in Intangible Assets, net A	-304	-652	-657	-710	-766
Change in Other Assets A	-124	-77	-78	-84	-91
Net Investing Cash Flow	**-3686**	**-4088**	**-4194**	**-4356**	**-4527**
Change in Short term debt L	-192	51	51	55	60
Current portion of long-term debt L	1276	-3948	1902	-448	851
Change Long-term Debt L	-30	4682	-1143	1279	56
Change in Other Long-term liabilities L	46	78	78	84	91
Change in Treasury Stock	0	0	-4000	-4000	-4000
Dividends	-2180	-2327	-2474	-2618	-2621
Proceeeds From ESOP	6	6	6	4	0
Net Cash Flow From Financing	**-1074**	**-1459**	**-5579**	**-5644**	**-5563**
Beginning Cash	1696	-155	2986	2110	1481
Net Cash Flow	-1851	3141	-875	-629	-314
Ending Cash	-155	2986	2110	1481	1167

CVS
Value Driver Estimation

Fiscal Years Ending Dec. 31	2015	2016	2017	2018E	2019E	2020E	2021E	2022E
NOPLAT Calculation								
Revenue	153,290	177,526	184,765	190,004	198,900	207,863	217,542	227,993
-Cost of Revenue (w/D&A)	126,180	148,041	153,741	158,594	165,277	172,729	180,775	189,464
-Operating Expenses	17,074	18,519	19,028	24,048	21,652	22,625	23,675	24,809
+Implied Interest on Operating Leases	859	854	851	909	945	987	1,035	1,091
EBITA	**10,895**	**11,820**	**12,847**	**8,272**	**12,916**	**13,496**	**14,127**	**14,810**
Marginal Tax Rate	39%	38%	20%	25.1%	25.1%	25.1%	25.1%	25.1%
Adjusted Taxes								
Income Tax Provision	3,386	3,317	1,637	1,870	1,957	2,019	2,175	2,308
+ Tax Shield on Interest Expense	329	406	206	465	315	381	365	383
- Tax Shield on Gain (Loss) on early extinguishment of debt	0	-247	0	0	0	0	0	0
+Tax Shield on Non-Operating Leases	859	854	851	909	945	987	1035	1091
Less: Total Adjusted Taxes	**4,574**	**4,824**	**2,695**	**3,244**	**3,216**	**3,387**	**3,575**	**3,781**
Net Deferred Tax Liability	3,051	4,217	4,214	2,996	3,131	3,266	3,401	3,536
Net Previous Year Deferred Tax Liability	2,999	3,051	4,217	4,214	2,996	3,131	3,266	3,401
Change in Deferred Taxes	52	1,166	(3)	(1,218)	135	135	135	135
NOPLAT	**6,373**	**8,162**	**10,150**	**3,810**	**9,835**	**10,245**	**10,687**	**11,164**
Invested Capital Computation								
Operating Current Assets								
Normal Cash	1,407	1,630	1,696	1,744	1,826	1,908	1,997	2,093
Accounts receivable, net	11,888	12,164	13,181	13,629	14,267	14,910	15,604	16,354
Inventories	14,001	14,760	15,296	16,287	17,049	17,817	18,647	19,543
Other current assets	722	660	945	938	982	1,027	1,074	1,126
Operating Current Liabilities								
Accounts payable	7,490	7,946	8,863	8,957	9,376	9,799	10,255	10,748
Claims & Discounts Payable	7,653	9,451	10,355	10,649	11,147	11,650	12,192	12,778
Net Operating Working Capital	12,875	11,817	11,900	12,992	13,600	14,213	14,875	15,590
PPE	8,843	9,855	10,175	10,292	10,909	11,339	11,843	12,425
Long Term Assets								
PV of Operating Assets	21032	20,921	20,858	22,270	23,147	24,176	25,365	26,719
Intangible Assets, net	13,878	13,511	13,630	13,934	14,586	15,244	15,954	16,720
Other Assets	1,440	1,485	1,529	1,653	1,730	1,808	1,893	1,984
Other Operating Assets	36,350	35,917	36,017	37,857	39,463	41,228	43,211	45,422
Other Liabilities	1,542	1,549	1,611	1,657	1,734	1,812	1,897	1,988
Invested Capital	**56,526**	**56,040**	**56,481**	**59,484**	**62,239**	**64,968**	**68,033**	**71,449**
NOPLAT	6,373	8,162	10,150	3,810	9,835	10,245	10,687	11,164
.- ΔIC	5,682	(486)	441	3,004	2,754	2,729	3,064	3,417
FCF (NOPLAT - ΔIC)	691	8,648	9,709	806	7,080	7,515	7,622	7,747
NOPLAT	6,373	8,162	10,150	3,810	9,835	10,245	10,687	11,164
Begin IC	50,844	56,526	56,040	56,481	59,484	62,239	64,968	68,033
ROIC (NOPLAT / Begin IC)	13%	14%	18%	6.7%	16.5%	16.5%	16.4%	16.4%
Begin IC	50,844	56,526	56,040	56,481	59,484	62,239	64,968	68,033
ROIC - WACC	5.90%	7.81%	11.48%	0.11%	9.90%	9.83%	9.82%	9.78%
EP (Begin IC) * (ROIC-WACC)	3,000	4,412	6,432	63	5,889	6,116	6,377	6,651

CVS

Income Statement % of Revenue

Fiscal Years Ending Dec. 31	2017	2017	2017	2017	2018	2018	2018	2018E	2019E	2019E	2019E	2019E	2020E	2020E	2020E	2020E
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Net revenues	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of revenues	83.83%	83.46%	83.24%	82.38%	83.58%	83.20%	83.19%	83.88%	83.37%	82.66%	82.41%	83.88%	83.37%	82.66%	82.41%	83.88%
Depreciation and Amortization	1.89%	1.91%	1.88%	1.90%	1.97%	1.98%	1.31%	1.44%	1.53%	1.51%	1.47%	1.38%	1.49%	1.47%	1.41%	1.32%
Gross profit (loss)	14.78%	15.18%	15.43%	16.34%	15.01%	15.42%	15.50%	14.67%	15.10%	15.83%	16.12%	14.73%	15.14%	15.87%	16.18%	14.79%
Operating expenses	10.75%	10.55%	10.02%	9.91%	10.75%	18.81%	10.52%	10.67%	11.03%	11.06%	10.80%	10.67%	11.03%	11.06%	10.80%	10.67%
Operating profit (loss)	4.03%	4.63%	5.41%	6.42%	4.26%	-3.40%	4.98%	4.00%	4.07%	4.77%	5.32%	4.06%	4.11%	4.81%	5.38%	4.12%
Interest income (expense), net	0.57%	0.54%	0.53%	0.61%	1.04%	1.02%	0.96%	0.90%	0.66%	0.65%	0.63%	0.59%	0.77%	0.76%	0.72%	0.68%
Gain (loss) on early extinguishment of debt	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other income (expense)	0.02%	0.02%	0.42%	0.00%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Income (loss) before income tax provision (benefit)	3.45%	4.08%	4.47%	5.81%	3.22%	-4.42%	4.02%	3.10%	3.41%	4.12%	4.69%	3.47%	3.34%	4.05%	4.65%	3.44%
Income tax provision (benefit)	1.28%	1.68%	1.68%	-0.99%	1.03%	1.06%	1.08%	0.78%	0.86%	1.03%	1.18%	0.87%	0.84%	1.02%	1.17%	0.86%
Income (loss) from continuing operations	2.16%	2.40%	2.78%	6.79%	2.18%	-5.49%	2.94%	2.32%	2.55%	3.09%	3.51%	2.60%	2.50%	3.03%	3.48%	2.58%
Income (loss) from discontinued operations, net of tax	-0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net income (loss)	2.14%	2.40%	2.78%	6.79%	2.18%	-5.49%	2.94%	2.32%	2.55%	3.09%	3.51%	2.60%	2.50%	3.03%	3.48%	2.58%
Net income (loss) attributable to noncontrolling interest	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net income attributable to CVS Health Corporation	2.14%	2.40%	2.78%	6.79%	2.18%	-5.49%	2.94%	2.32%	2.55%	3.09%	3.51%	2.60%	2.50%	3.03%	3.48%	2.58%

CVS

Balance Sheet % of Revenue

Fiscal Years Ending Dec. 31	2015	2016	2017	2018E	2019E	2020E	2021E	2022E
Cash & cash equivalents	1.60%	1.90%	0.92%	-0.08%	1.62%	1.14%	0.80%	0.63%
Short-term investments	0.06%	0.05%	0.06%	0.06%	0.06%	0.07%	0.07%	0.07%
Accounts receivable, net	7.76%	6.85%	7.13%	7.38%	7.72%	8.07%	8.45%	8.85%
Inventories	9.13%	8.31%	8.28%	8.81%	9.23%	9.64%	10.09%	10.58%
Deferred income taxes	0.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other current assets	0.47%	0.37%	0.51%	0.51%	0.53%	0.56%	0.58%	0.61%
Total current assets	19.82%	17.49%	16.90%	16.68%	19.16%	19.48%	19.99%	20.74%
Property & equipment, net	6.43%	5.73%	5.57%	5.90%	6.14%	6.41%	6.72%	7.08%
Goodwill	24.86%	21.55%	20.81%	20.81%	20.81%	20.81%	20.81%	20.81%
Intangible assets, net	9.05%	7.61%	7.38%	7.54%	7.89%	8.25%	8.63%	9.05%
Other assets	0.94%	0.84%	0.83%	0.89%	0.94%	0.98%	1.02%	1.07%
Total assets	61.10%	53.21%	51.49%	51.83%	54.94%	55.93%	57.19%	58.76%
Accounts payable	4.89%	4.48%	4.80%	4.85%	5.07%	5.30%	5.55%	5.82%
Claims & discounts payable	4.99%	5.32%	5.60%	5.76%	6.03%	6.31%	6.60%	6.92%
Accrued expenses	4.45%	3.91%	3.58%	3.68%	3.85%	4.02%	4.21%	4.41%
Short-term debt	0.00%	1.06%	0.69%	0.59%	0.61%	0.64%	0.67%	0.70%
Current portion of long-term debt	0.78%	0.02%	1.92%	2.61%	0.47%	1.50%	1.26%	1.72%
Total current liabilities	15.11%	14.79%	16.59%	17.49%	16.05%	17.78%	18.29%	19.57%
Long-term debt	17.14%	14.43%	12.00%	11.99%	14.52%	13.90%	14.60%	14.63%
Deferred income taxes	3.55%	2.37%	1.62%	1.69%	1.77%	1.84%	1.91%	1.99%
Other long-term liabilities	1.01%	0.87%	0.87%	0.90%	0.94%	0.98%	1.03%	1.08%
Total Liabilities	36.80%	32.46%	31.09%	32.07%	33.27%	34.50%	35.83%	37.26%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Redeemable noncontrolling interest	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Common stock, Trust & Surplus Capital	20.18%	17.80%	17.35%	17.36%	17.36%	17.36%	17.37%	17.37%
Treasury stock, at cost	18.84%	18.84%	20.44%	20.44%	20.44%	22.60%	24.77%	26.93%
Retained earnings	23.16%	21.96%	23.57%	22.93%	24.83%	26.75%	28.85%	31.16%
Accumulated other comprehensive income (loss)	-0.23%	-0.17%	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%
Total CVS Health Corporation shareholders' equity	24.27%	20.75%	20.40%	19.76%	21.66%	21.42%	21.36%	21.50%
Noncontrolling interest	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total shareholders' equity	24.27%	20.75%	20.40%	19.76%	21.67%	21.43%	21.36%	21.50%

CVS

Key Management Ratios

Fiscal Years Ending Dec. 31	2015	2016	2017	2018E	2019E	2020E	2021E	2022E
Liquidity Ratios								
Current Ratio =	1.31	1.18	1.02	0.95	1.19	1.10	1.09	1.06
Current Assets / Current Liabilities								
Current Ratio w/o Cash =	1.21	1.05	0.96	0.96	1.09	1.03	1.05	1.03
Current Assets w/o cash / Current Liabilities								
Quick Ratio =	0.71	0.62	0.52	0.45	0.62	0.55	0.54	0.52
Cur Assets - Inventory / Cur Liabilities								
Cash Ratio =	0.11	0.13	0.06	0.00	0.10	0.06	0.04	0.03
Cash + Marketable Securities/ Cur Liabilites								
Activity or Asset-Management Ratios								
Inventory Turnover=	9	10	10	10	10	10	10	10
COR / Average Inventory								
Inventory Period =	41	36	36	37	38	38	38	38
365/ Inventory Turnover								
Asset Turnover =	0.61	0.53	0.51	0.50	0.51	0.50	0.49	0.48
Total Assets / Sales								
Financial Leverage Ratios								
Debt Ratio =	0.29	0.29	0.28	0.29	0.28	0.29	0.29	0.29
Total Debt / Total Assets								
Debt-to-Equity Ratio =	0.74	0.75	0.72	0.77	0.72	0.75	0.77	0.79
Total Debt / Total Equity								
Financial Leverage =	2.5	2.6	2.5	2.6	2.5	2.6	2.7	2.7
Total Assets/ Total Shareholders Equity								
Profitability Ratios								
Gross Profit Margins =	17.31%	16.26%	15.45%	15.14%	15.43%	15.48%	15.53%	15.58%
Sales - COR / Sales								
Operating Margin =	6.17%	5.82%	5.15%	2.49%	4.55%	4.60%	4.65%	4.70%
Operating Income / Sales								
Net Profit Margin =	3.42%	3.00%	3.58%	0.52%	2.94%	2.90%	2.98%	3.02%
Net Profit/ Sales								
ROA =	5.59%	5.63%	6.96%	1.04%	5.75%	5.83%	6.14%	6.34%
Net Income / Total Assets								
ROE =	14.08%	14.44%	17.57%	2.72%	14.58%	15.22%	16.44%	17.33%
Net Income/ Shareholder Equity								
Payout Policy Ratios								
Dividend Yield =	1.5%	2.1%	2.7%	2.5%	2.5%	2.4%	2.6%	2.6%
Dividends per Share/ Share Price								
Payout Ratio =	30%	34%	31%	280%	45%	59%	46%	45%
Dividends per Share / Earnings Per Share								

CVS

Weighted Average Cost of Capital (WACC) Estimation

Cost of Equity	
30 year bond yield (US)	3.390%
CVS Beta	1
MRP	4.8%
Cost of Equity	8.19%
Cost of Debt	
30 year bond yield (US)	3.39%
Corporate Spread (BBB)	2.06%
Cost Debt	5.45%
Marginal Tax Rate	25.1%
Cost of Debt Adjusted for Tax	4.08%
# of Shares outstanding (2017)	1,014,532,157
Current Share Price	$79.91
MV Equity	$81,071,264,666
MV Debt	$28,600,000,000
PV of Operating Leases	$20,857,699,251
Total	$130,528,963,916
% Equity	62%
% Debt	38%
WACC	**6.63%**

CVS

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

Key Inputs:

CV Growth	3.00%
CV ROIC	16%
WACC	6.63%
Cost of Equity	8.19%

Fiscal Years Ending Dec. 31	2018E	2019E	2020E	2021E	2022E
DCF Model					
Discount Period	1	2	3	4	5
NOPLAT	3,810	9,835	10,245	10,687	11,164
Invested Capital	59,484	62,239	64,968	68,033	
CAPEX	3,255	3,352	3,453	3,557	
FCF	806	7,080	7,515	7,622	
Discount Rate	0.94	0.88	0.82	0.77	
CV				251,078	
PV of Cash Flows	756	6,227	6,198	200,089	
Total Value of OPS	**213,270**				
EP Model					
NOPLAT	3,810	9,835	10,245	10,687	11,164
Beginning IC	56,481	59,484	62,239	64,968	68,033
EP	63	5,889	6,116	6,377	6,651
CV				183,045	
Discount Rate	0.94	0.88	0.82	0.77	
Present Valueof EP	59	5,179	5,044	146,506	
Total Value OPS	**213,270**				

	Unadjusted	**Adjusted for Aetna Deal**
Excess Cash	-	
Value of debt	28,600	**73400**
Minority Interests	4	**4**
Underfunded Pension Plan	131	**131**
Other LT Liabilities	1,611	**1,657**
PV of Operating Leases	20,858	**20,858**
ESOPs	279	**279**
Net Value of other Liabilites & Assets	51,483	**96,328**
Net Value of Company	161,787	**116,941**
Shares outstanding	1,022	**1,307**
Intrinsic Value as of 12/31/17		**$ 89.47**
Intrinsic Value as of 4/1		**$ 92.57**

CVS

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

Fiscal Years Ending Dec. 31	2018E	2019E	2020E	2021E	2022E
Discount Period	1	2	3	4	5
EPS	$ 0.72	$ 4.46	$ 4.73	$ 5.24	$ 5.73
Dividends	$ 2.00	$ 2.00	$ 2.20	$ 2.40	$ 2.60
Discount Rate	0.92	0.85	0.79	0.73	
cv				$ 97.59	
PV	$ 0.66	$ 3.81	$ 3.74	$ 75.06	

Key Assumptions

CV growth	4%
CV ROE	17%
Cost of Equity	8.19%

Intrinsic Value	
As of 12/31/17	**$ 83.26**
As of 11/15/18	**$ 87.27**

CVS

Relative Valuation Models

Ticker	Company	Price	EPS 2018E	EPS 2019E	P/E 18	P/E 19	Est. 5yr EPS gr.	PEG 18	PEG 19
WBA	Walgreens	$79.30	$6.53	$7.06	12.1	11.2	10.6	1.14	1.06
UNH	United Health	$262.42	$12.81	$14.57	20.5	18.0	15.8	1.30	1.14
HUM	Humana	$324.11	$14.18	$17.18	22.9	18.9	14.3	1.60	1.32
ESRX	Express Scripts	$97.05	$9.11	$9.53	10.7	10.2	12.2	0.87	0.83
				Average	**16.5**	**14.6**		**1.2**	**1.1**
CVS	CVS	$79.91	$0.72	$4.46	13.2	12.0	51.6	0.3	0.2

Implied Value:

Relative P/E (EPS18)	**$ 11.83**
Relative P/E (EPS19)	**$ 64.93**

VALUATION OF OPTIONS GRANTED IN ESOP

Ticker Symbol	CVS
Current Stock Price	$79.91
Risk Free Rate	3.16%
Current Dividend Yield	2.85%
Annualized St. Dev. of Stock Returns	20.91%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Outstanding 12/31/17	20,530,000	75.32	3.62	$ 13.59	$ 279,015,478
Total	20,530,000	$ 75.32	3.62	$ 18.65	**$ 279,015,478**

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

Number of Options Outstanding (shares):	20,530,000
Average Time to Maturity (years):	3.62
Expected Annual Number of Options Exercised:	5,671,271
Current Average Strike Price:	$ 75.32
Cost of Equity:	8.19%
Current Stock Price:	$79.91

	2018E	2019E	2020E	2021E	2022E
Increase in Shares Outstanding:	5,671,271	5,671,271	5,671,271	3,516,188	
Average Strike Price:	$ 75.32	$ 75.32	$ 75.32	$ 75.32	
Increase in Common Stock Account:	**427,160**	**427,160**	**427,160**	**264,839**	
Change in Treasury Stock	0	0	4,000,000,000	4,000,000,000	4,000,000,000
Expected Price of Repurchased Shares:	$ 79.91	$ 86.45	$ 93.54	$ 101.20	$ 109.48
Number of Shares Repurchased:	**-**	**-**	**42,764,620**	**39,527,332**	**36,535,106**
Shares Outstanding (beginning of the year)	1,299,000,000	1,304,671,271	1,310,342,541	1,273,249,192	1,237,238,138
Plus: Shares Issued Through ESOP	5,671,271	5,671,271	5,671,271	3,516,188	0
Less: Shares Repurchased in Treasury	-	-	42,764,620	39,527,332	36,535,106
Shares converted from bonds				90	

Present Value of Operating Lease Obligations (2017)

Fiscal Years Ending Dec. 31	Operating Leases
2018	2493
2019	2361
2020	2201
2021	2072
2022	1934
Thereafter	16090
Total Minimum Payments	27151
Less: Interest	6293
PV of Minimum Payments	20858

Capitalization of Operating Leases

Pre-Tax Cost of Debt	4.08%
Number Years Implied by Year 6 Payment	8.3

Year	Lease Commitment	PV Lease Payment
1	2493	2395.2
2	2361	2179.4
3	2201	1952.1
4	2072	1765.6
5	1934	1583.4
6 & beyond	1934	10982.1
PV of Minimum Payments		20857.7

Present Value of Operating Lease Obligations (2016)

Fiscal Years Ending Dec. 31	Operating Leases
2017	2458
2018	2361
2019	2209
2020	2040
2021	1910
Thereafter	16368
Total Minimum Payments	27346
Less: Interest	6425
PV of Minimum Payments	20921

Capitalization of Operating Leases

Pre-Tax Cost of Debt	4.08%
Number Years Implied by Year 6 Payment	8.6

Year	Lease Commitment	PV Lease Payment
1	2458	2361.6
2	2361	2179.4
3	2209	1959.2
4	2040	1738.3
5	1910	1563.7
6 & beyond	1910	11119.2
PV of Minimum Payments		20921.4

Present Value of Operating Lease Obligations (2015)

Fiscal Years Ending	Operating Leases
2016	2405
2017	2321
2018	2197
2019	2044
2020	1877
Thereafter	16837
Total Minimum Payments	27681
Less: Interest	6649
PV of Minimum Payments	21032

Capitalization of Operating Leases

Pre-Tax Cost of Debt	4.08%
Number Years Implied by Year 6 Payment	9.0

Year	Lease Commitment	PV Lease Payment
1	2405	2310.7
2	2321	2142.5
3	2197	1948.5
4	2044	1741.7
5	1877	1536.7
6 & beyond	1877	11351.8
PV of Minimum Payments		21031.9

Present Value of Operating Lease Obligations (2014)

Fiscal Years Ending	Operating Leases
2015	2279
2016	2220
2017	2121
2018	2007
2019	1861
Thereafter	16794
Total Minimum Payments	27282
Less: Interest	6617
PV of Minimum Payments	20665

Capitalization of Operating Leases

Pre-Tax Cost of Debt	4.08%
Number Years Implied by Year 6 Payment	9.0

Year	Lease Commitment	PV Lease Payment
1	2279	2189.6
2	2220	2049.3
3	2121	1881.1
4	2007	1710.2
5	1861	1523.6
6 & beyond	1861	11311.3
PV of Minimum Payments		20665.1

Present Value of Operating Lease Obligations (2013)

Fiscal Years Ending 176.906433406864	Operating Leases
2014	2405
2015	2129
2016	2055
2017	1964
2018	1853
Thereafter	16914
Total Minimum Payments	27320
Less: Interest	6661
PV of Minimum Payments	20659

Capitalization of Operating Leases

Pre-Tax Cost of Debt	4.08%
Number Years Implied by Year 6 Payment	9.1

Year	Lease Commitment	PV Lease Payment
1	2405	2310.7
2	2129	1965.3
3	2055	1822.6
4	1964	1673.5
5	1853	1517.0
6 & beyond	1853	11370.0
PV of Minimum Payments		20659.1

Beta	$ 92.57
0.6	$ 176.91
0.7	$ 149.00
0.8	$ 126.53
0.9	$ 108.05
1	$ 92.57
1.1	$ 79.41
1.2	$ 68.09
1.3	$ 58.23

Average Cost of Revenue **Q2**

Q1

$ 92.57	82%	82.20%	82.40%	82.66%	82.80%	83%	83.20%
82.70%	$ 102.59	$ 101.08	$ 99.58	$ 97.62	$ 96.57	$ 95.07	$ 93.56
82.90%	$ 101.09	$ 99.59	$ 98.09	$ 96.13	$ 95.08	$ 93.57	$ 92.07
83.10%	$ 99.60	$ 98.10	$ 96.59	$ 94.63	$ 93.58	$ 92.08	$ 90.57
83.37%	$ 97.58	$ 96.08	$ 94.57	$ 92.62	$ 91.56	$ 90.06	$ 88.55
83.50%	$ 96.61	$ 95.11	$ 93.60	$ 91.65	$ 90.59	$ 89.09	$ 87.58
83.70%	$ 95.12	$ 93.61	$ 92.11	$ 90.15	$ 89.10	$ 87.59	$ 86.09
83.90%	$ 93.62	$ 92.12	$ 90.61	$ 88.66	$ 87.60	$ 86.10	$ 84.60

Average Cost of Revenue **Q3**

Q4

$ 92.57	81.8%	82%	82.20%	82.41%	82.6%	82.8%	83.00%
82.70%	$ 108.20	$ 106.58	$ 104.95	$ 103.25	$ 101.71	$ 100.09	$ 98.47
82.90%	$ 106.40	$ 104.78	$ 103.15	$ 101.45	$ 99.91	$ 98.29	$ 96.67
83.10%	$ 104.60	$ 102.98	$ 101.35	$ 99.65	$ 98.11	$ 96.49	$ 94.87
83.88%	$ 97.58	$ 95.95	$ 94.33	$ 92.63	$ 91.09	$ 89.47	$ 87.84
83.50%	$ 101.00	$ 99.37	$ 97.75	$ 96.05	$ 94.51	$ 92.89	$ 91.27
83.70%	$ 99.20	$ 97.57	$ 95.95	$ 94.25	$ 92.71	$ 91.09	$ 89.46
83.90%	$ 97.40	$ 95.77	$ 94.15	$ 92.45	$ 90.91	$ 89.29	$ 87.66