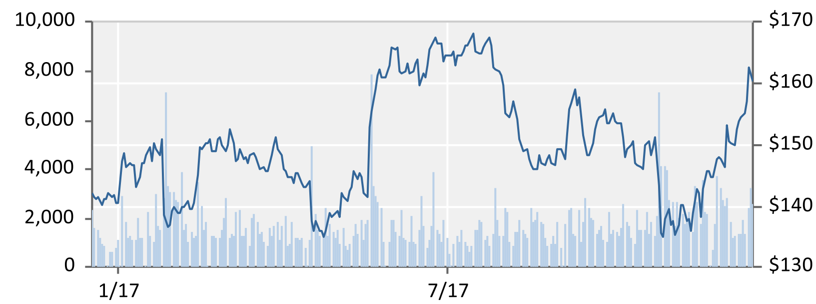
Analyst: Gus Vanevenhoven | **INVESTMENT MANAGEMENT CERTIFICATE PROGRAM** | January 10, 2018

Recommendation	**HOLD**
Target (today's value)	$171.08
Current Price	$170.66
52 week range	$133.82 - $177.97

Medical Distribution

McKesson Corp.

Share Data	
Ticker:	MCK
Market Cap. (Billion):	$33.4
Inside Ownership	0.3%
Inst. Ownership	90.7%
Beta	0.95
Dividend Yield	0.9%
Payout Ratio	5.8%
Cons. Long-Term Growth Rate	2.0%



Source: FactSet Prices

	'15	**'16**	**'17**	**'18E**	**'19E**
Sales (billions)					
Year	$179.1	$190.8	$198.5	$205.7	$211.6
Gr %		6.6%	4.0%	3.6%	2.9%
Cons				$205.5	$210.1
EPS					
Year	$9.82	$12.08	$12.54	$11.95	$12.85
Gr %		23.0%	3.8%	-4.7%	7.5%
Cons				$12.23	$13.15

Ratio	**'15**	**'16**	**'17**	**'18E**	**'19E**
ROE (%)	21.5%	27.1%	51.9%	21.9%	20.3%
Industry	10.1%	31.1%	24.9%	18.0%	19.2%
NPM (%)	1.0%	1.2%	2.6%	1.0%	1.1%
Industry	0.8%	1.1%	1.2%	0.8%	0.8%
A. T/O	3.39	3.46	3.38	3.32	3.25
ROA (%)	2.8%	4.1%	8.6%	4.1%	4.0%
Industry	2.7%	4.3%	4.3%	4.0%	3.8%
A/E	6.39	6.52	5.87	5.38	5.03

Valuation	**'16**	**'17**	**'18E**	**'19E**
P/E	15.8	7.7	13.2	12.4
Industry	24.6	17.7	13.8	12.6
P/S	0.19	0.17	0.16	0.16
P/B	4.1	4.1	3.0	3.0
P/CF	14.9	5.2	10.2	8.2
EV/EBITDA	16.7	11	8.6	9.5

Performance	**Stock**	**Industry**
1 Month	12.8%	10.6%
3 Month	8.0%	2.7%
YTD	14.1%	2.9%
52-week	12.6%	2.1%
3-year	-24.4%	-16.1%

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Summary: I recommend a hold rating with a target of $171. MCK's current share price offers limited upside in a competitive drug distribution industry that features small margins. Potential exists if drug pricing pressures subside and MCK expands into specialty / biosimilar pharmaceuticals more efficiently than competitors.

Key Drivers:

- Pharmaceutical Pricing & Spending Trends: Recent generic and branded drug price declines are expected to continue into 2018.
- M&A: Recent acquisitions by MCK are targeting higher growth, higher margin businesses. Will MCK's recent spending surge result in value for shareholders long-term?
- Competitor Analysis: Competition among the three main pharmaceutical distributors is high and threats of Amazon entering medical distribution are causing a stir within the industry.
- Medicine Usage / Demographic Trends: Pharmaceutical spending in North America is expected to grow 4-7% annually on average through 2021.

Valuation: Using a relative value and DCF, MCK appears to be fairly valued. Valuation models suggest that the stock's value is about $171 and the shares currently trade around $170.

- Target Price = (50% * $167.98) + (50% * $174.12) = $171

Risks: Threats to the business include changes in U.S. & international regulatory/political environment, further drug price deflation, industry consolidation, Amazon, and corporate governance.

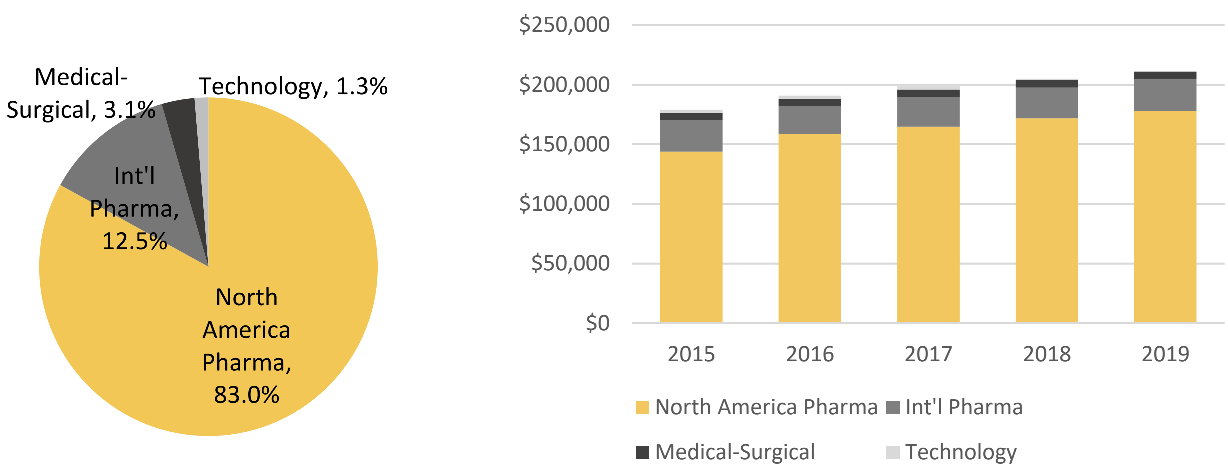
Company Overview

McKesson Corp. provides medicines, pharmaceutical supplies, information and care management products and services across the healthcare industry. It operates through the McKesson Distribution Solutions and McKesson Technology Solutions segments. The McKesson Distribution Solutions segment distributes pharmaceuticals, medical-surgical supplies and equipment and health and beauty care products throughout North America. This segment also provides specialty pharmaceutical solutions for biotech and pharmaceutical manufacturers, sells financial, operational and clinical solutions for pharmacies. The McKesson Technology Solutions segment provides software, automation, business services and consulting to hospitals, physician offices, imaging centers and home healthcare. It also provides interactive connectivity services that streamline clinical, financial and administrative communication between patients, providers, payers, pharmacies and financial institutions agencies and payers.

MCK is made up of a number of sub-segments.

- The North America Pharmaceutical Distribution & Services (83% sales) is comprised of U.S. Pharmaceutical Distribution, McKesson Specialty Health, McKesson Canada, and McKesson Pharmacy Technology & Services
- International Pharmaceutical Distribution & Services (12.5% sales) provides distribution and services to the pharmaceutical and healthcare sectors primarily in Europe. Consists of Pharmacy Solutions and Patient & Consumer solutions.
- Medical-Surgical Distribution & Services (3.1% sales) engages in medical-surgical supply distribution, equipment, and logistics to physicians' offices, surgery centers, extended care facilities, and homecare sites. MCK also has its own private label line.
- Technology Solutions (1.3% sales) provides a comprehensive portfolio of information technology and services to help healthcare organizations improve quality of care and ensure patient safety, reduce the cost and variability of care and better manage their resources and revenue stream.

Figures 1 and 2: Revenue Sources for MCK, fiscal year Mar. 2017 (left) and Revenue history/estimates (right, millions)



Source: Company Reports, FactSet

Business/Industry Drivers

Several factors contribute to McKesson's future success. In the near term, I believe the following are the most important drivers of the business.

1. Pharmaceutical Pricing & Spending Trends
2. M&A and Spin-off
3. Competitor Analysis
4. Medicine Usage / Demographic Trends

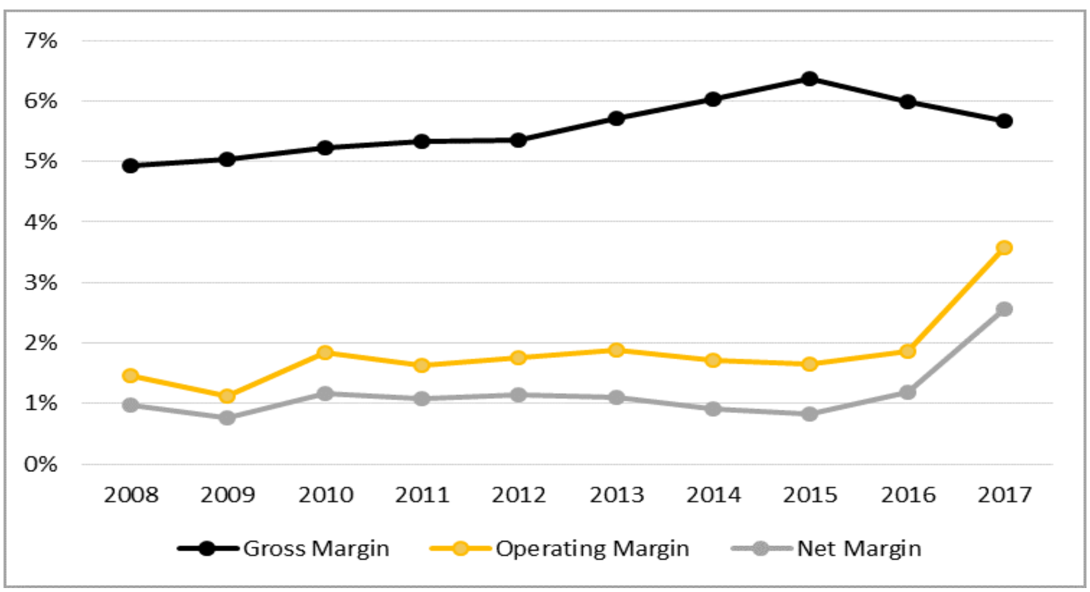
<u>Pharmaceutical Pricing & Spending Trends</u>

Fiscal year 2017 was tough for MCK, as generic drug prices declined.

MCK operates in an oligopoly in the medical distribution industry and is the largest of three major players controlling an estimated 90% combined market share in the U.S. MCK and other medical distributors are the intermediaries between pharmaceutical manufacturers and end consumers, such as pharmacies and hospitals. For example, Novartis, a drug manufacturer, does not have the scale required to distribute its drugs to thousands of pharmacies in an efficient manner. As an alternative, drug manufacturers pay MCK a small fee to distribute their products to pharmacies and hospitals across the globe. MCK may also purchase the drugs directly from the manufacturer and sell them wholesale at a small markup. These fees are in part reliant on the price manufacturers charge for their drugs. Distributors' revenues are partially tied to gross drug spending, and benefit from list price increases on pharmaceuticals. As a result, the drug distribution industry has very small margins (Figure 3). Five segments – generic, branded, specialty, biosimilar, and OTC drugs have slightly different pricing dynamics but are important to MCK's profitability going forward.

In FY 2017, net Income and operating profit were above average due to a one-time gain from the Change Healthcare transaction, which resulted in a $3,018 billion after-tax gain.

Figure 3: MCK's historical margins (March fiscal year)

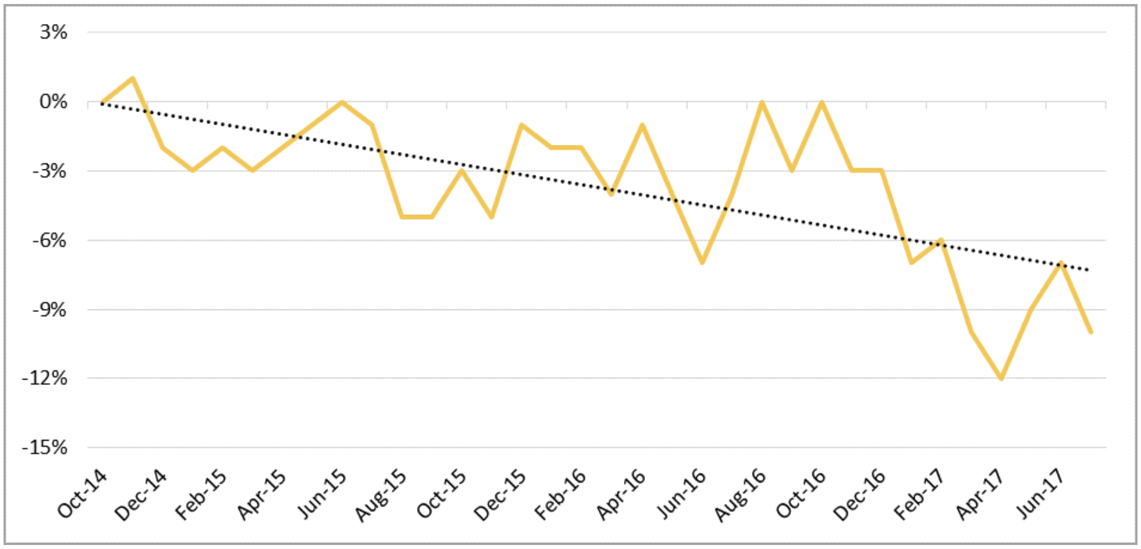


Source: Company Reports, FactSet

The FDA fell behind on approving new generic market entrants, reducing competition. This trend began to reverse in 2016.

Recently, generic-drug prices have been deflating in the U.S. at the fastest rate in years (Figure 4). Generic drugs are cheaper reproductions of medicines that have lost patent protection. Typically, when a drug loses its patent protection, multiple companies may begin producing it and prices fall dramatically, often over 75%. However, in recent years, generic prices have actually been increasing due to multiple factors. A number of manufacturers stopped making certain drugs due to quality-control problems and the Food and Drug Administration (FDA) fell behind on approving new generic market entrants, reducing competition. These trends began to reverse in 2016 and generic prices are now decreasing at a faster rate than historical averages. Due to this, wholesalers such as MCK were compelled to cut prices to stay competitive, detrimental to profitability in FY 2017. Although MCK does not break down specific financials by category, I estimate generics to be 15%-20% of revenue.

Figure 4: Median price change, generic basket (YoY % Change)



Source: Medicaid.gov, Baird

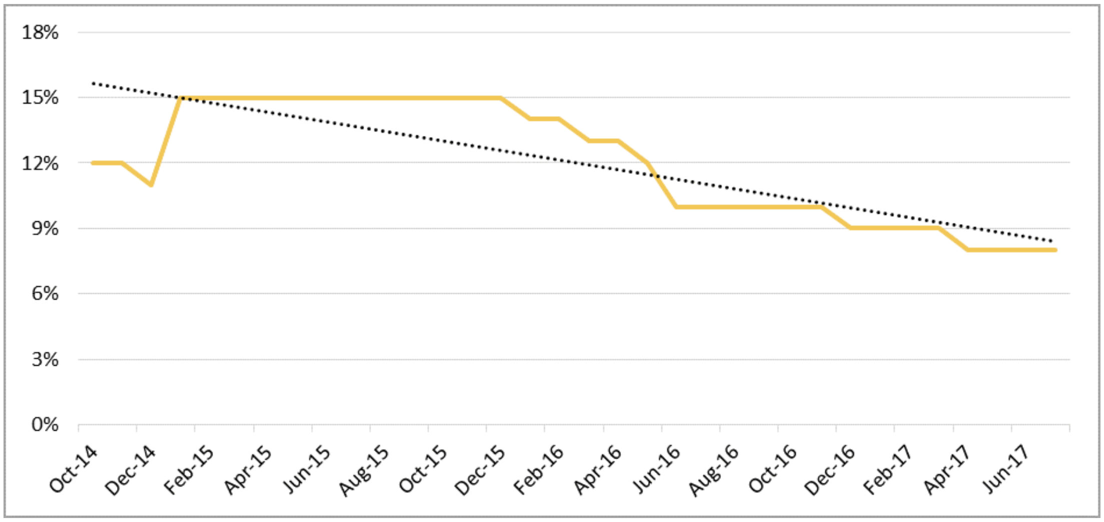
In May 2016, MCK and Walmart announced they would jointly source generics through a partnership called ClarusOne.

To help mitigate this trend, management has renegotiated several purchasing agreements with manufacturers to favor fixed versus variable compensation, which should benefit MCK in the long term with less price volatility. Additionally, the company formed ClarusONE, a partnership with Walmart (WMT), to source generic pharmaceuticals. The partnership benefits both companies by increasing their purchasing scale - wholesalers with large purchasing volumes and scale can negotiate better prices from manufacturers. As generics come to dominate pharmacy dispensing, pharmacies and wholesalers with below-average procurement costs will be best positioned to succeed. ClarusONE is expected to contribute $100 million - $150 million to EBIT (+5% MCK EBIT) in FY 2018 (net WMT's 50% stake). Going forward, generic price deflation is expected to continue for several years, although with less variability.

MCK had $24 billion + in specialty revenues in Fiscal 2017 (approx. 12% of total revenues).

Outside of generics, branded price increases have also slowed recently, as drug manufacturers face increasing political and consumer pressure (Figure 5). Growth decelerated in 2016 after two historically high years due to lower price increases for protected brands, fewer new products launched, and lower spending growth, particularly for hepatitis C treatments. Spending growth has mostly been driven by new brands and protected brand volume increases. Additionally, new brands have shifted significantly to specialty therapies, despite a decline in new brand spending for hepatitis C treatments, mentioned previously. MCK has been attempting to take advantage of the growing and profitable specialty market with its recent Vantage Oncology and Biologics acquisitions, further discussed below. Going forward, management forecasts mid-single-digit growth on branded drug pricing.

Figure 5: Median price change, branded basket (YoY % Change)



Source: Medicaid.gov, Baird

M&A and Spin-off

MCK CFO James Beer on capital deployment priorities:

1. Internal Capex
2. M&A
3. Share Buybacks
4. Dividends

MCK operates in a mature industry and places a high priority on M&A to diversify and expand its business. Over 80% ($4 bil) of operating cash flow in FY 2017 was spent on acquisitions, adding faster growing, higher margin businesses to its distribution segment. A few recent acquisitions include CoverMyMeds.com, Rexall Health, and Vantage Oncology / Biologics. Additionally in FY 2017, McKesson combined the majority of its technology solutions business with Change Healthcare, creating a separate company. McKesson received approximately $1.2 billion cash for the transaction and will retain a 70% ownership stake in the new company. The divesture will allow the company to focus on its primary distribution business. Eventually the company will split or be spun-off, which management expects to happen sometime in CY 2019.

CoverMyMeds.com was acquired in February 2017 for approximately $1.1 billion, funded from cash. CoverMyMeds (CMM) is a leader in electronic prior authorization solutions and helps facilitate the fulfillment of prescriptions at the pharmacy, making the company valuable to clinicians, patients, pharmacies and manufacturers. The business model simplifies and accelerates the prior authorization process through cloud-based technology, instead of traditional phone calls and faxes. CMM works with over 45,000 pharmacies and generates revenue of over $100 million annually. In addition, CMM issued over two million prior authorizations per month in 2017 and has grown over 100% annually over the past four years. CMM has worked closely with MCK's RelayHealth Pharmacy claims processing business since 2010, decreasing integration risk.

MCK will retain 70% ownership in Change Healthcare. Eventual monetization via IPO should help MCK shareholders realize value.

Rexall Health, a retail pharmacy chain in Canada, was purchased in December 2016 for $2.1 billion. The acquisition allows MCK to expand as a direct retail operator, creating value when working with pharmaceutical manufacturers looking for "one-stop" market access. The company operates over 470 retail pharmacies and has potential to drive growth in two of Canada's fastest growing regions, Ontario and Western Canada. National Bank Financial estimates Rexall has annual sales of $2 billion to $2.5 billion and generates annual EBITDA of $200 million to $250 million.

In February 2016, MCK acquired Vantage Oncology and Biologics for $1.2 billion. The purchase allows the company to expand its footprint in the specialty pharmaceutical space where the clinical care needs of its physician partners are increasingly complex and growing. Vantage offers comprehensive oncology management services, including community-based radiation oncology, medical oncology, surgical specialties, and other integrated cancer care services. Vantage operates over 50 cancer centers in the U.S. and strengthens MCK's current offerings while allowing patients to access efficient, customizable and cost effective care. It is estimated oncology alone should nearly double from $46 billion in revenues in 2016 to $86 billion in 2025. Expanding in the profitable and growing specialty market should also allow MCK to diversify away from generic pricing deflation.

MCK acquisition spending (net cash acquired) -

2017: $4.2 B
2016: $0.04 B
2015: $0.17 B
2014: $4.6 B

Mergers and acquisitions among pharmacies and payers are pressuring wholesaler margins, especially as the acquiring companies consolidate buying power. The largest dispensing pharmacies, CVS Health, Walgreens Boots Alliance, Express Scripts, Walmart, Rite Aid, and UnitedHealth Group – account for the bulk of U.S. prescription dispensing revenues. These large pharmacies are increasingly entering into multifaceted partnerships with the drug wholesalers, cementing the distributors' role in the system (Figure 6). Further discussion on the competitive landscape continues below.

Figure 6: MCK and competitors major partnerships

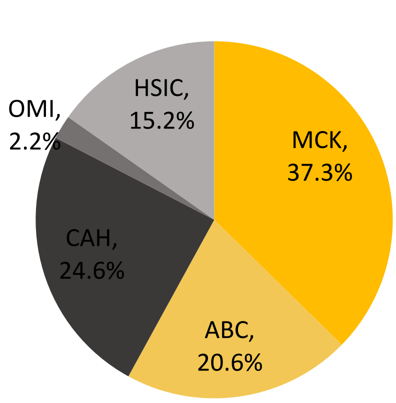
	McKesson (MCK)	Cardinal Health (CAH)	AmerisourceBergen (ABC)
Large PBM Customer	CVS/caremark	OptumRx	Express Scripts
Large Retail Customer	Walmart	CVS/pharmacy	Walgreens Boots Alliance

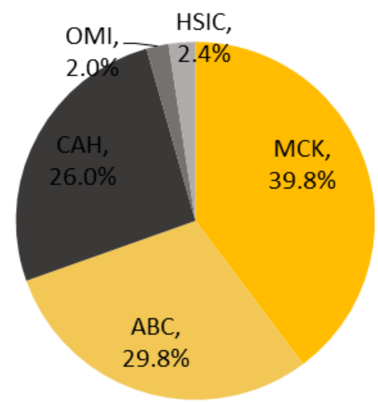
Source: Pembroke Consulting Research, drugchannels.net

Competitor Analysis

MCK operates in an oligopoly in the medical distribution industry and is the largest of three major players controlling an estimated 90% combined market share in the U.S. Due to extremely thin profit margins and little market share up for grabs, new entrants would face a difficult time penetrating the drug distribution market. Historically, new players have had a tough time carving out enough share to efficiently leverage distribution assets into positive economic profits. Additionally, the three main firms are able to obtain material pricing discounts from drug manufacturers that many of their customers cannot acquire on their own. These aspects provide a long-term competitive position for the three major drug distributors, although not as powerful as in the past with an ever-changing healthcare environment. For example, recent news (and lots of speculation) about Amazon (AMZN) entering healthcare, either with its own pharmacies, wholesale pharmaceutical or medical supply distribution, or other avenues have caused a stir in the industry. Additionally, competition between the three major distributors is high, as changes in drug prices have begun to harm margins, mentioned previously. This trend has led the firms to a greater focus on operating efficiencies/leverage and seeking new avenues for growth such as specialty & biosimilar pharmaceuticals.

Figures 7 & 8: Comparison of MCK comps by market cap (left) and 2017 revenue (right)





Source: Morningstar, IMCP

On October 26, 2017, St. Louis Post-Dispatch reported it was announced Amazon had gained approval from a number of state pharmaceutical boards to become a wholesale distributor, citing public records. Although these licenses only applied to 12 states, shares of companies within the pharmaceutical supply chain sank 4% - 7% that afternoon alone. Weeks later, a report from Jefferies indicated Amazon was instead homing in on the medical devices and supplies industries and the licenses reported previously could only be used for medical device and supplies, not pharmaceutical distribution (via a Freedom of Information Act request by Jefferies). Although MCK distributes medical supplies, it is only estimated to be 3% of total revenues.

Although it is justified to consider Amazon a potential threat to the space in years to come, I believe the near-term fears (specifically related to MCK) are slightly overblown. It is easy to underestimate the complexity of entering the pharmaceutical distribution industry. Amazon had been considering the healthcare and pharmacy space for close to 20 years (remember Drugstore.com in 1999). Additionally, this December Amazon let three medical distribution license applications in the state of Maine expire. On December 3rd, 2017, RBC analyst George Hill wrote about the expiration, "That's either a sign Amazon isn't interested in selling drugs or an example of rookie struggles with the complex regulations. Our key takeaway from this experience is that Amazon will have to endure the same learning curve and regulatory hurdles in the space as any other company." Furthermore, industry consultant Adam Fein of Drug Channels Institute, reported many shoppers prefer to get their medications from a store, which offers peace of mind that their orders are correct and provides them the opportunity to speak with pharmacists. This is something that is not as easy to do online. He continued by citing the fact mail-order prescriptions fell 23% from 2012 to 2016, with mail pharmacies dispensing only 10% of all 30-day equivalent prescriptions in 2016.

Competition amongst the three main distributors is also high. In 2016, as highlighted by a WSJ article*, one of MCK's key competitors, AmeriSourceBergen (ABC) ignited a price war amongst the three distributors in an attempt to win business from independent pharmacies. These smaller pharmacies are more profitable for the distributors as they typically have less purchasing power compared to larger retail chains. Many of the smaller pharmacies procure drugs through group-purchasing organizations (GPOs). When ABC provided generous pricing terms to win a contract, many other GPOs began seeking more favorable pricing terms from their own distributors, further squeezing margins. Specifically in CY 2016, MCK had to re-negotiate several contracts with independents to maintain business, harming margins. It is worth noting that ABC's strategy to win business through price reduction was not successful, as estimates show almost no shift in market share within the GPOs. If any one of the three main distributors were to blink on price again, it could hurt profitability for all.

Although MCK faces potential headwinds mentioned above, the firm has taken steps to mitigate potential issues going forward. The company has been able to increase generic distribution volume through the expansion of its Albertsons and Wal-Mart (ClarusONE) relationships. In addition, the firm has begun a restructuring campaign to enhance current efficiencies while reducing its cost structure through a head count reorganization as well as divesting its struggling healthcare IT segment (via Change Healthcare, mentioned above). Although a specific timeline has not been announced, it is estimated the restructuring campaign could add 3-5 bps to distribution solutions EBIT margins.

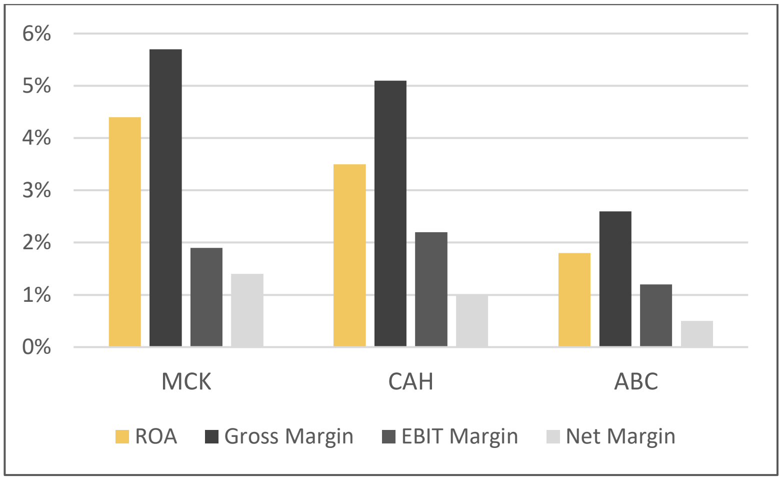
MCK retail pharmacy store ownership:

U.S. – 4,800+
Europe/UK – 8,100+
Canada – 2,500+

MCK has historically had above industry average margins, attributable to higher concentrations of independent pharmacy business, U.S. Oncology, and pharmacy ownership (Figure 9). MCK's North American distribution business is estimated to have more exposure to specialty than competitors. The firm also has more exposure to Canada and Europe/UK than its three main competitors, with revenue exposure around 13% of total sales. The company's long-term goal is to reach sustainable double-digit EPS growth, driven by more diverse areas such as specialty, medical-surgical, private label, international, and capital deployment.

**WSJ Article: "Falling U.S. Generic Drug Prices Hurt Manufacturers, Wholesalers", 8/4/17*

Figure 9: Comparison of MCK comps by margin (5-year average)



Source: Morningstar

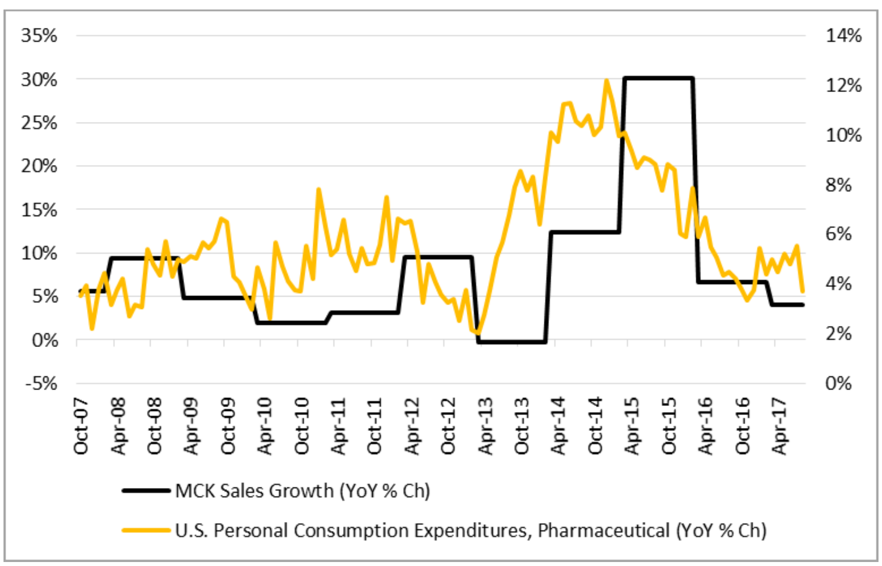
Medicine Usage / Demographic Trends

Distribution Solutions EBIT Margins -

2017: 1.72%
2016: 1.89%
2015: 1.73%
2014: 1.84%

Over 98% of MCK's revenue comes from its distribution services segment, 84% of which is generated from North America. Due to very low margins, volume is extremely important. Outpatient prescription drug spending is projected to grow along with overall national healthcare expenditures. The usage of medicines by patients has continued to rise, as many have wider access to insurance and low cost generic medicines, with a small number of patients facing high out-of-pocket costs.

Figure 10: MCK sales growth (left) and U.S. personal consumption expenditures, pharma (right)



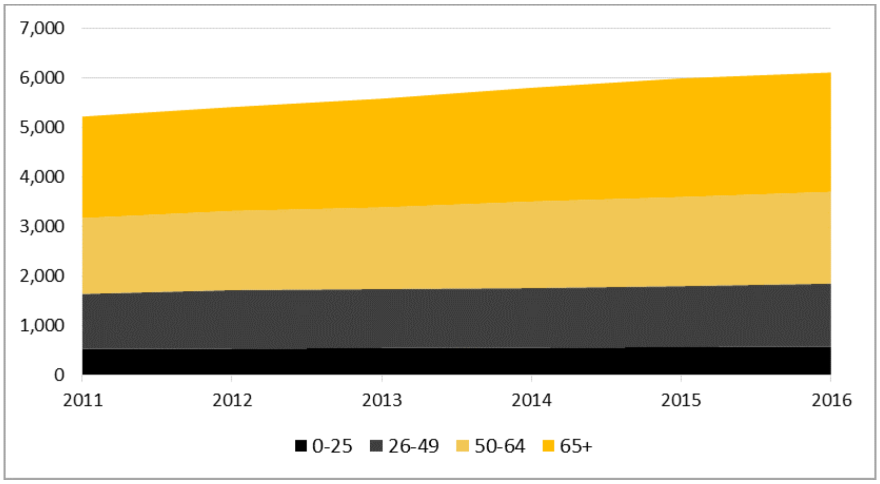
Source: FactSet

Patients are living longer and an aging population are driving higher prescription usage.

The United States added 12.3 million to the population from 2011 to 2016, 91% of that of that increase coming from the over 50-age group, as patients are living longer and frequently healthier lives. The aging population is driving higher prescription usage. Patients over 50 accounted for 682 million of the 884 million incremental prescriptions over the past five years, 70% of that coming from a rising share of the population and 30% originating from higher usage.

Medicine usage per 1 mil of overall U.S. population averaged 18,869 in 2016, up from 16,775 in 2011, an increase of 2.4% per year on average and 12.5% overall. Overall healthcare spending is predicated to account for nearly 20% of the U.S. economy by 2025.

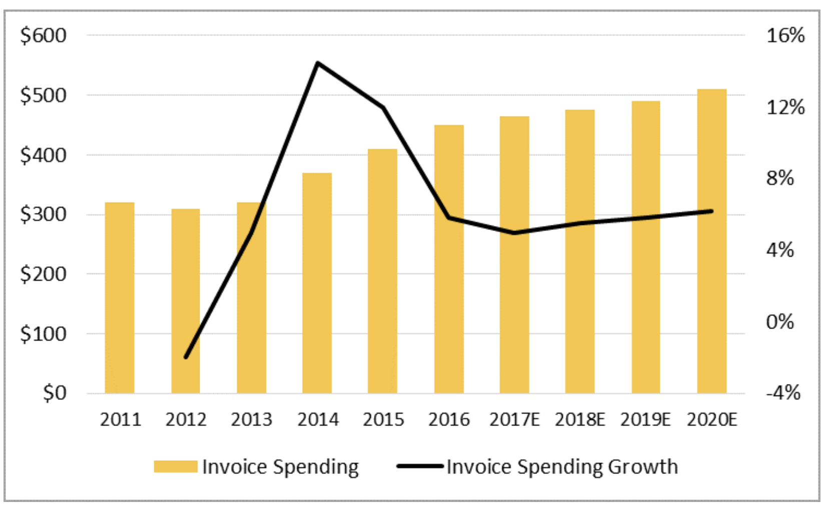
Figure 11: Adjusted dispensed prescriptions by patient age (millions)



Source: QuintilesIMS National Prescription Audit; U.S. Census Bureau, Dec. 2016

The Affordable Care Act (ACA) will continue to influence medicine spending over the next several years as insurance coverage expands, increasing medicine usage. Although uncertainty surrounds the healthcare system in the U.S., the failed repeal and replace of the ACA in March 2017 should be a positive for distributors. Although approximations vary, Goldman Sachs and RAND estimated between 17 million – 18 million people gained access to health insurance through the ACA or expanded Medicaid as of May 2015.

Figure 12: Total spending on medicines (USD, Billions)



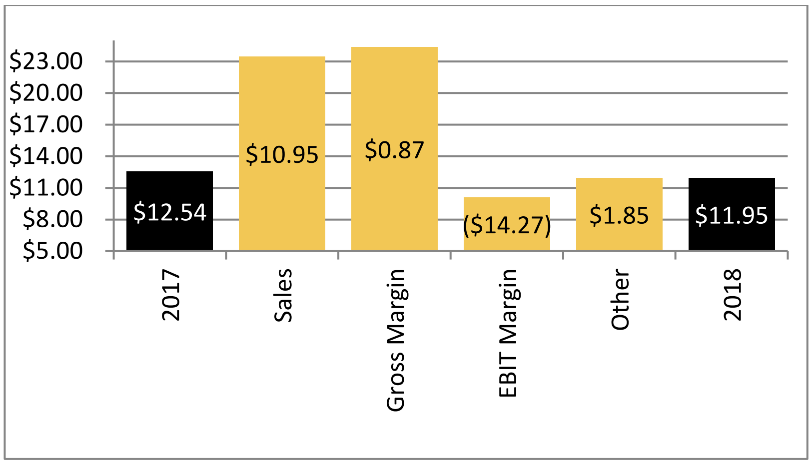
Source: QuintilesIMS Market Prognosis, QuintilesIMS Institute, March 2017

Due to more strict health management, higher government oversight in several countries, and the relative lack of end-of-life therapies, the EU pharmaceutical market is expected to grow 3-4% annually through 2020, slightly slower than the 4-7% growth expected in the U.S. market (QuintilesIMS).

Financial Analysis

I anticipate adj. EPS to decline to $11.85 in FY 2018. The majority of the estimated decline comes from earnings returning to “normal” levels, as FY 2017 EPS was boosted due to a one-time gain from the technology solutions divesture, mentioned previously. Anticipated revenue growth of 3.6% should increase earnings by $10.95. Gross margin and EBIT margin decline should contribute $0.87 and ($14.27) to earnings, respectively. Margins for the distributors were depressed in 2017 due to several factors discussed previously, including deflating drug prices, customer consolidation, and increased competition. These trends are expected to continue into 2018. Alleviating factors to these trends include MCK’s restructuring campaign aimed at increasing efficiencies, the ramping up of MCK’s ClarusONE sourcing venture with Walmart, share buybacks, and favorable FX movements.

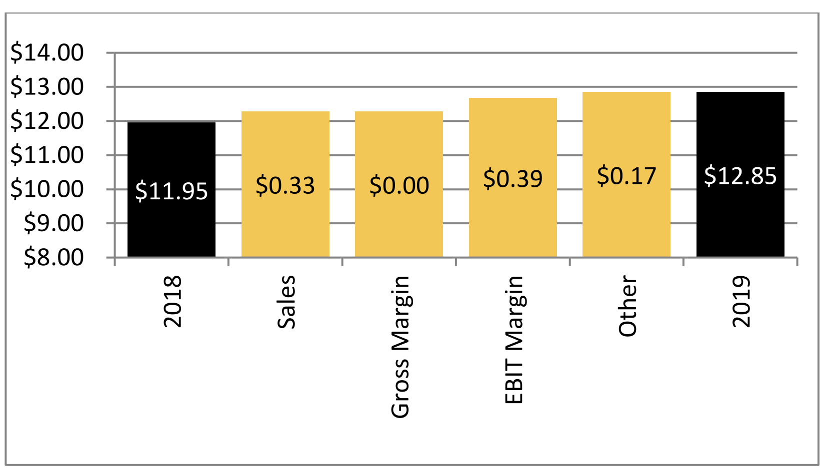
Figure 13: Quantification of FY 2018 EPS Drivers



Source: Company Reports, IMCP

I anticipate FY 2019 adj. EPS to increase $1.29 to $12.85. Revenue growth of 3% should increase earnings by $0.33. I estimate slight gross and EBIT margin improvements (from lower SG&A as a % of sales) to contribute a positive $0.39 to earnings. As drug pricing pressures subside and move toward more normal levels, margins should be positively impacted. Additionally, a reduced tax rate and continued share buybacks, as well as monetization of Change Healthcare (management considering FY 2019 IPO) should provide a positive impact to EPS.

Figure 14: Quantification of FY 2019 EPS Drivers



Source: Company Reports, IMCP

I am, for the most part, in line with consensus estimates for FY 2018 and 2019 EPS estimates. I anticipate drug pricing will slowly move toward historical averages, although I do not believe they will return to 2014-2015 levels anytime soon. MCK should benefit from an aging population and increased spending on pharmaceuticals for several years to come. It is worth noting I am also in line with management's forecasted FY 2018 EPS of $11.80 - $12.50.

Figure 15: Sales and EPS estimates for FY '17 and '18

	2018E	2019E
Revenue	$205,482	$210,824
YoY Growth	3.5%	2.6%
Revenue - Consensus	$205,828	$210,123
YoY Growth	3.6%	2.3%
EPS	$11.95	$12.85
YoY Growth	-4.7%	7.5%
EPS - Concensus	$12.23	$13.15
YoY Growth	-2.5%	7.5%

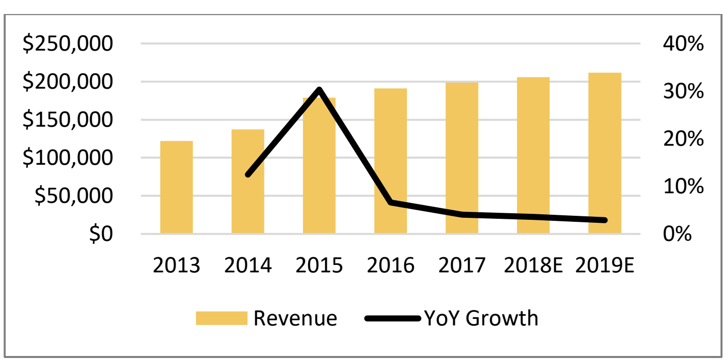
Source: FactSet, IMCP

Revenues

MCK's revenues have grown at a 7.9% CAGR over the past 10 years as the company benefited from increased spending on pharmaceuticals, a leading market share, and prescription drug price increases. Most recently in FY 2017, revenue grew below historical averages at 4% to $198.5 billion. I believe revenue growth will continue to moderate for the next several years as the pharmaceutical wholesale environment continues to mature. Although prescription spending is expected to increase at low-to-mid-single digits, competition within the industry's three main players should remain high, in addition to a potentially evolving, but difficult to predict, Amazon threat.

I expect MCK's North America pharma segment (83% of total sales) to grow 3.5% - 4.5% over the next several years as the firm's dominant market share put the company in position to take advantage of increased pharmaceutical spending. Pharmacy ownership and disciplined M&A would also allow the company to expand in high-growth areas such as specialty and biosimilar medicines. I anticipate MCK's international pharma segment (12.5% of total sales) will grow 2.5% - 3.5% over the next few years as European and UK prescription spending growth lag the U.S. Also, I forecast MCK's medical-surgical segment (3.1% of total sales) to grow 1% - 3%; a segment which is more vulnerable to an Amazon threat due to lower barriers to entry compared to pharmaceutical distribution. Lastly, MCK's technology solutions segment (1.3% of total sales) should fall to 0% by FY 2019, as the company divests from the space.

Figure 16: Revenue (million, L) and YoY Growth (R) 2013-2019E



Source: Company Reports

Return on Equity

MCK has achieved a return on equity above its comps in recent years. This is due to its higher net profit margins compared to the industry, which more than offsets its lower average financial leverage and asset turnover. This could indicate MCK has achieved a higher ROE with less risk. Going forward, continued pressure on net margins should weigh on both ROA and ROE for MCK. I do not expect the company to increase leverage materially in the next several years, as the company should be able to generate sufficient cash flow.

Figure 17: ROE breakdown, 2014-2019E

5-stage DuPont	2014	2015	2016	2017	2018E	2019E
EBIT / Sales	1.7%	1.7%	1.9%	3.6%	1.7%	1.7%
Sales / Avg Assets	3.18	3.39	3.46	3.38	3.33	3.30
EBT / EBIT	88.6%	89.5%	91.7%	96.9%	90.9%	90.9%
Net Income / EBT	60.3%	55.6%	69.5%	73.6%	79.0%	79.0%
ROA	2.9%	2.8%	4.1%	8.6%	4.1%	4.0%
Avg Assets / Avg Equity	5.55	6.39	6.52	5.87	5.38	5.03
ROE	16.2%	17.9%	26.7%	50.7%	21.9%	20.3%

Source: Company Reports

Free Cash Flow

MCK's free cash flow has varied extensively over the last several years. NOPAT (excluding the one-time FY17 gain mentioned previously) has grown while changes in operating capital varied as the company has made numerous acquisitions in recent years. MCK's management has stated they intend to continue with share buybacks, and favor them over dividends. In 2017, the company spent over $2.3 billion on buybacks, compared to $1.6 billion in 2016. The company has also reduced its borrowing recently, and does not predict material increases in the near term. In 2016, MCK repaid significantly more debt than it issued, leading to negative FCFE in my analysis.

Figure 18: FCF analysis 2015 – 2019E

	2015	2016	2017	2018E	2019E
NOPAT	$2,058	$2,555	$5,444	$2,725	$2,796
Growth		*24.2%*	*113.1%*	*-50.0%*	*2.6%*
NOWC	4,837	4,985	2,576	4,677	5,900
Net fixed assets	17,200	18,126	24,021	22,831	23,425
Total net operating capital	$22,037	$23,111	$26,597	$27,508	$29,325
Growth		*4.9%*	*15.1%*	*3.4%*	*6.6%*
- Change in NOWC	(5)	148	(2,409)	2,101	1,223
- Change in NFA	(1,986)	926	5,895	(1,190)	594
FCFF	$4,049	$1,481	$1,958	$1,814	$979
Growth		*-63.4%*	*32.2%*	*-7.4%*	*-46.0%*
- After-tax interest expense	259	254	236	265	275
+ Net new short-term and long-term debt	(875)	(1,690)	391	200	150
FCFE	$2,914	-$464	$2,113	$1,765	$875
Growth		*-115.9%*	*-555.6%*	*-16.5%*	*-50.4%*
FCFF per share	$17.5	$6.4	$8.9	$8.6	$4.7
Growth		*-63.1%*	*37.6%*	*-3.3%*	*-45.1%*
FCFE per share	$12.6	-$2.0	$9.6	$8.3	$4.2
Growth		*-116.1%*	*-574.2%*	*-12.8%*	*-49.5%*

Source: Company Reports, IMCP

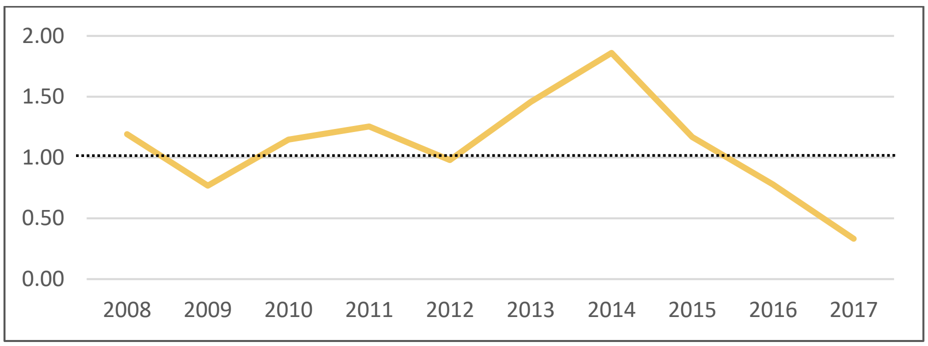
Valuation

MCK was valued using multiples and a 3-stage discounting cash flow model. Relative valuation shows MCK to be fairly valued based on its fundamentals versus those of its peers in the medical distribution industry.

Trading History

MCK is currently trading near its ten year low relative to the S&P 500 based on trailing P/E. This is the result of a negative industry outlook due to recent pharmaceutical pricing trends, industry consolidation, and other trends. MCK's current forward P/E is at 13.4 compared to its ten year average of 18.5. While I expect slight regression towards that number in the future, I do not think that is likely to be the case in the near term as I am doubtful pharmaceutical pricing will return to 2014-2015 levels. It is important to note that MCK's FY 2017 P/E is very low due to the one-time gain from the Change Healthcare spin-off, which temporarily increased MCK's operating and net margins for the year. Normalizing this would put its FY 17 P/E around 10 (as reported: 7.6). Considering these factors and my future outlook, I incorporated a 15.5x terminal P/E for my DCF valuation (FY 2024).

Figure 19: MCK TTM P/E relative to S&P 500



Source: Morningstar, Company Reports

Assuming the firm's forward P/E rises to 13.4 by the end of 2018 as conditions improve, it should trade around $172 by the end of its fiscal year based on my FY 2019 EPS estimate.

- Price = NTM P/E x FY '19 EPS = 13.4 x $12.85 = $172.19
- Discounted = 172.19 / (1.104^3/12) = 167.98

Discounting $172.19 back today at a 10.4% cost of equity (explained in the Discounted Cash Flow section) yields a price of $167.98.

Figure 20: MCK valuation compared to 5yr average, comps, healthcare sector and S&P 500

(TTM used)	MCK	*MCK 5yr Avg*	ABC	CAH	Health - Care**	S&P 500
P/E	10.5*	*21.8*	62.6	18.1	22.5	22.9
P/S	0.2	*0.2*	0.1	0.2	1.9	2.2
P/B	2.9	*4.4*	10.1	3.0	4.0	3.2
P/CF	10.7	*10.9*	13.9	8.9	17.5	14.3
Div. Yield	0.8%	*0.6%*	1.6%	2.9%	1.4%	1.9%

**MCK's TTM P/E was adjusted to account for one-time gain on Change Healthcare (actual reported TTM P/E: 8.6)*

***Healthcare industry estimated using VHT Healthcare ETF*

Source: Morningstar

<u>Relative Valuation</u>

MCK is currently trading at a P/E below its peers, based on a forward P/E of 13.4 compared to an industry average 15.0. The medical distribution industry is discounted when compared to the healthcare industry or S&P 500, due primarily to investors' concerns over pharmaceutical pricing trends, industry consolidation, and a potential AMZN threat. Additionally, MCK's P/B is lower than peers, while its P/S is around the average. This is despite its higher margins and ROE vs. peers. As noted, the recent bump in ROE is temporary, but even before the 2017 rise, MCK's margin and ROE were above peer averages.

Figure 21: MCK comparable companies

Ticker	Name	Current Price	Market Value	Price Change 1 day	1 Mo	3 Mo	6 Mo	52 Wk	YTD	GAAP Earnings Growth LTG	NTM	2015	2016	2017	2018	Pst 5yr	Beta	LT Debt/ Equity	S&P Rating	LTM Dividend Yield	Payout
MCK	MCKESSON CORP	$172.96	$36,058	1.5	9.2	14.7	4.2	15.1	10.9	2.0	-69.6%	15.4%	54.3%	133.7%	-47.9%	33.0%	1.28	67.2%	A-	0.80%	5.8%
ABC	AMERISOURCEBERGEN CORP	$102.66	$22,388	2.6	11.0	23.4	12.0	22.6	11.8	8.0	281.8%	-150.8%	-1119.4%	-74.1%	152.4%	5.7%	0.94	183.2%	B	1.61%	89.0%
CAH	CARDINAL HEALTH INC	$73.51	$23,127	2.2	17.6	10.2	(3.6)	(2.0)	20.0	5.5	56.9%	7.0%	19.1%	-11.7%	8.6%	-10.1%	0.86	135.8%	B+	3.00%	53.1%
Average			$27,191	2.1	12.6	16.1	4.2	11.9	14.2	5.2	89.7%	-42.8%	-348.6%	16.0%	37.7%	9.5%	1.03	128.7%		1.80%	49.3%
Median			$23,127	2.2	11.0	14.7	4.2	15.1	11.8	5.5	56.9%	7.0%	19.1%	-11.7%	8.6%	5.7%	0.94	135.8%		1.61%	53.1%
SPX	S&P 500 INDEX	$2,833		0.8	5.6	10.0	14.6	24.7	6.0			-0.1%	0.5%	10.3%	11.7%						

Ticker	Website	FY2017 ROE	P/B	P/E 2014	2015	2016	TTM	NTM	2017	2018E	FY2017 NPM	P/S	OM	FY2017 ROIC	EV/ EBIT	P/CF Current	P/CF 5-yr	Sales Growth NTM	STM	Pst 5yr	Book Equity
MCK	http://www.mckesson.com	51.0%	2.80	32.6	36.0	16.2	8.4	13.4	7.6	14.1	2.55%	0.17	1.6%	30.7%	11.8	7.0	11.5	2.7%	3.7%	10.1%	$53.57
ABC	http://www.amerisourcebergen.com	17.4%	8.70	66.1	-	12.8	62.6	16.9	55.9	16.5	0.24%	0.12	1.3%	6.2%	9.8	12.2	10.8	8.7%	7.6%	14.0%	$9.47
CAH	http://www.cardinalhealth.com	19.3%	3.60	20.3	23.1	18.1	21.4	14.8	19.3	14.2	0.99%	0.19	1.8%	9.4%	11.5	21.0	11.9	4.9%	3.2%	3.9%	$20.87
Average		29.2%	5.03	39.7	29.6	15.7	30.8	15.0	27.6	14.9	1.26%	0.16	1.6%	15.4%	11.0	13.4	11.4	5.4%	4.8%	9.3%	
Median		19.3%	3.60	32.6	29.6	16.2	21.4	14.8	19.3	14.2	0.99%	0.17	1.6%	9.4%	11.5	12.2	11.5	4.9%	3.7%	10.1%	
spx	S&P 500 INDEX			17.3	17.2	18.8			21.5	19.3											

<u>Discounted Cash Flow Analysis</u>

I estimate MCK's stock to be worth $174. based on a three-stage discounted cash flow model.

Using CAPM, I calculated the firm's cost of equity to be 10.4%. The underlying assumptions used in calculating this rate are as follows:

- Risk-free rate of 2.75%, based on the 10-year Treasury bond yield.
- A beta of 1.05 was utilized, slightly above the industry average. With recent uncertainty surrounding the industry, an above average beta is warranted.
- Market return of 10%, which has historically been about the average return of the market.

Using the above, cost of equity = 2.75% + 1.05 x (10% - 2.75%) = 10.4%

Stage One – For the first stage, the model discounts FY17 & FY18 free cash flow to equity (FCFE). Main assumptions used include revenue growth of 3.5% for FY18, and 2.6% for FY19, as well as NOPAT margins of 1.3%. I also expect share count to fall to 211 million in FY18 and 208 million by FY19. These assumptions result in discounted FCFE per share of $7.56 and $3.46, respectively.

Stage Two – Stage two of the model focuses on years 2020 – 2024. FCFE is calculated based on several factors including the firm's capital growth assumptions, NOPAT margin, and revenue growth. The resulting numbers are then discounted by 10.4%. As the industry matures, I forecast revenue growth to decline at a linear rate from 2.5% in 2020 to 2.0% in 2024. I expect NOPAT margins to remain around the firm's historical average of 1.2% - 1.6% and to benefit from a reduced corporate tax rate with the government's recent tax bill passage. I am also forecasting MCK's NOWC to sales and NFA turnover to stabilize around historical levels. I am not forecasting any unusual debt increases during this time period, as I expect the firm to keep its debt levels around historical averages.

	2018	2019	2020	2021	2022	2023	2024
FCFE	$8.34	$4.21	$9.07	$10.87	$12.47	$13.25	$13.24
Discounted FCFE	$7.56	$3.46	$6.74	$7.32	$7.61	$7.33	$6.63

Stage Three – For the final stage, I estimate a terminal growth rate of 0.5%, and a terminal P/E of 15.5. Although industry multiples are currently below average, I expect MCK's P/E to revert moderately to its average over the next seven years as investor sentiment and earnings improve.

Assuming terminal earnings per share for MCK are $16.39, with a P/E of 15.5, a terminal value of $253.99 is calculated. Using a discount rate of 10.4%, this number is discounted back to $127.38.

	2018	2019	2020	2021	2022	2023	2024
EPS	$11.70	$12.23	$12.41	$13.89	$15.43	$16.30	$16.39

Total Present Value – given the above assumptions utilized in a three-stage discounted cash flow model, an intrinsic value of $174.04 is calculated ($11.01 + $35.65 + $127.38).

Scenario Analysis

Considering different scenarios for my DCF model, I calculated an intrinsic value for two additional circumstances, one bearing in mind a more bullish outlook, and another a more bearish.

For my bull case, I assumed a 3.6% average sales growth for FY 2018 – 2024, as well as a 1.6% average NOPAT margin, a beta of 1, and a terminal P/E of 16.5. These assumptions would increase my intrinsic value to $221.55. These inputs would imply MCK is able to continue to expand in the U.S. and overseas with competition remaining at the status quo, the firm benefiting from the reduced 21% corporate tax rate, as well as valuation levels returning toward historical averages.

For my bear case, I assumed a 1.8% average sales growth for FY 2018 – 2024, as well as a 1.3% average NOPAT margin, a beta of 1.1, and a terminal P/E of 14.5. These assumptions would decrease my intrinsic value to $128.87. These inputs would imply competition within the distribution industry notches up, with a potential outside player like Amazon taking market share. Additionally, this input would assume a new player or continued drug price deflation cutting into margins and valuation levels remaining suppressed.

Figure 22: Scenario Analysis

(2018 - 2024)	Base Case	Bull Case	Bear Case
7 yr. avg. sales growth	2.40%	3.60%	1.80%
7 yr. avg. NOPAT margin	1.40%	1.60%	1.30%
Beta	1.05	1.00	1.10
Terminal P/E	15.5	16.5	14.5
DCF Value	$174.04	$221.55	$128.87

Business Risks

There are multiple potential risks facing MCK which could impede my investment thesis of having a cautiously optimistic outlook on MCK in the near term.

Changes in the U.S. healthcare industry & regulatory environment

MCK's operations are structured around the current healthcare system in the United States, which has changed significantly in recent years. Further disruption such as changes in Medicare and Medicaid reimbursement levels, changes in basis for payments, shifting away from fee-for-service and towards value-based payments and risk-sharing models, increases in the use of managed care, and further consolidation within the healthcare industry could negatively impact MCK.

International operation risks

MCK conducts business worldwide in U.S. dollars and the functional currencies of its foreign subsidiaries, including the Euro, British pound sterling, and Canadian dollars. Changes in foreign currency exchange rates could negatively impact the company's financial results which are reported in U.S. dollars. Changes in Canadian, EU, or UK regulatory or healthcare environments could negatively impact the company's financial position.

Competition and industry consolidation

MCK operates in a highly competitive environment and would be negatively impacted by a new entrant such as Amazon entering the pharmaceutical distribution marketplace. Additionally, in recent years, the healthcare industry has been subject to increasing consolidation. Having a smaller number of pharmaceutical suppliers and customers could cause the company to be less able to negotiate favorable pricing terms. If consolidation trends continue among MCK's customers, suppliers, or competitors, it could erode the company's purchasing power and profitability. During 2017, sales to the company's ten largest customers, including GPOs, accounted for 54.2% of total revenues. Sales to the company's largest customer, CVS Health, accounted for 20.2% of total revenues.

Corporate Governance

I question MCK's corporate governance in recent years, as the firm has been under scrutiny around internal controls handling controlled substances. The firm was charged by the government in 2007 and 2008 for failing to report suspect opioid orders from some of its customers. Although the board agreed to increase internal controls surrounding controlled substances, by 2014 the firm was investigated again and ultimately paid a $150 million fine. These failures occurred while the board agreed to record paydays for CEO John Hammergren, who has been compensated over $500 million over the past 13 years. Specifically, he was compensated $46 million in 2011, $55 million in 2010, and $37 million in 2009. This compares to the average pay package for a CEO running a top 100 company around $12 million (Reda, compensation consultant). Shareholders voted this past July 2017 against the company's executive pay policy, following a shareholder campaign that criticized the company for its role in the U.S. opioid drug epidemic. Hopefully this recent shareholder vote sends a message to MCK's board, but if mismanagement continues, MCK could be negatively affected.

The present value of CEO John Hammergren's pension benefit is over $130 million.

It is unfortunate management emphasizes adjusted earnings instead of GAAP, which the board seems to be okay with reporting. In fact, short-term bonuses for management are based on two criteria, adjusted EPS (75%) and adjusted operating cash flow (25%). Long-term bonuses are determined based on a combination of adjusted operating cash flow and average ROIC (20%), total shareholder returns vs. the S&P 500 Health Care Index and adjusted EPS (40%), and the final 40% is based on the stock's price performance. In my opinion, shareholders would benefit if the board focused on longer term results and ROIC, rather than short term adjusted earnings and stock price which can encourage aggressive management and excessive share buybacks.

Appendix 1: Porter's 5 Forces

Threat of New Entrants – Relatively Low

A new competitor would have a hard time carving out market share in an industry where the three top players control 90%. Significant capital would be required to establish an efficient supply chain capable of navigating a complex healthcare environment and handing very small margins.

Threat of Substitutes – Medium to High

MCK relies on long term contracts with pharmacies and other end users and faces significant competition from CAH and ABC. Distribution firms attempt to create value for customers in an attempt to make it harder for customers to switch to a competitor.

Supplier Power - Medium

Numerous drug manufactures rely on the big three distributors to efficiently distribute their products to pharmacies and other end users. A supplier with a significant brand name or patent could negotiate more favorable terms, reducing the purchasing power of distributors.

Buyer Power – Medium

M&A activity among pharmacies and payers are pressuring wholesaler margins, as the acquiring companies consolidate buying power. CVS Health, Walgreens Boots Alliance, Express Scripts, Walmart, Rite Aid, and United Health Group account for the majority of U.S. prescription dispensing sales.

Intensity of Competition – Medium to High

Competition between the three major distributors is high, as changes in drug prices have begun to harm margins, mentioned previously. This trend has led the firms to a greater focus on operating efficiencies/leverage and seeking new avenues for growth such as specialty & biosimilar pharmaceuticals.

Appendix 2: SWOT Analysis

Strengths	Weaknesses
Above average margins	Limited business segments
Highest market share	Below average dividend
Robust cash flow	Poor corporate governance
Opportunities	**Threats**
Healthcare spending increasing	Regulatory/political pressure
Higher margin business opps (oncology)	Further drug price deflation
International expansion	Amazon

Appendix 3: Income Statement (Millions, USD)

Income Statement	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19
Sales	$122,196	$137,392	$179,045	$190,844	$198,533	$205,482	$210,824
Direct costs	115,315	129,040	167,634	179,428	187,262	194,797	199,440
Gross Margin	6,881	8,352	11,411	11,416	11,271	10,685	11,385
SG&A, R&D, and other	4,566	5,985	8,443	7,871	4,162	7,192	7,800
EBIT	2,315	2,367	2,968	3,545	7,109	3,493	3,584
Interest	240	303	374	353	308	319	325
EBT	1,919	2,096	2,657	3,250	6,891	3,174	3,259
Taxes	581	742	815	908	1,614	667	684
Income	1,338	1,354	1,842	2,342	5,277	2,508	2,574
Other	-	91	366	84	207	-	-
Net income	1,338	1,263	1,476	2,258	5,070	2,508	2,574
Basic Shares	235.0	229.0	232.0	230.0	221.0	211.6	207.9
EPS	$5.69	$5.52	$6.36	$9.82	$22.94	$11.85	$12.38
DPS	$0.83	$0.93	$0.98	$1.06	$1.14	$1.25	$1.32

Appendix 4: Balance Sheet (Millions, USD)

Balance Sheet	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19
Cash	2,456	4,193	5,341	4,048	2,783	4,708	5,964
Operating assets ex cash	20,714	28,380	31,329	34,389	34,165	34,932	35,840
Operating assets	23,170	32,573	36,670	38,437	36,948	39,640	41,804
Operating liabilities	21,005	27,731	31,833	33,452	34,372	34,932	35,840
NOWC	2165	4842	4837	4985	2576	4,708	5,964
NOWC ex cash (NWC)	(291)	649	(504)	937	(207)	-	-
NFA	11616	19186	17200	18126	24021	22,831	23,425
Invested capital	*$13,781*	*$24,028*	*$22,037*	*$23,111*	*$26,597*	*$27,540*	*$29,389*
Total assets	*$34,786*	*$51,759*	*$53,870*	*$56,563*	*$60,969*	*$62,472*	*$65,229*
Short-term and long-term debt	$4,873	$10,719	$9,844	$8,154	$8,545	$8,745	$8,895
Other liabilities	1,838	4,787	4,192	6,033	6,957	6,957	6,957
Debt/equity-like securities	-	-	-	-	-	-	-
Equity	7,070	8,522	8,001	8,924	11,095	11,838	13,537
Total supplied capital	*$13,781*	*$24,028*	*$22,037*	*$23,111*	*$26,597*	*$27,540*	*$29,389*
Total liabilities and equity	*$34,786*	*$51,759*	*$53,870*	*$56,563*	*$60,969*	*$62,472*	*$65,229*

Appendix 6: Ratios

Ratios	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19
Profitability							
Gross margin	5.63%	6.08%	6.37%	5.98%	5.68%	5.20%	5.40%
Operating (EBIT) margin	1.89%	1.72%	1.66%	1.86%	3.58%	1.70%	1.70%
Net profit margin	1.09%	0.92%	0.82%	1.18%	2.55%	1.22%	1.22%
Activity							
NFA (gross) turnover		8.92	9.84	10.80	9.42	8.77	9.12
Total asset turnover		3.18	3.39	3.46	3.38	3.33	3.30
Liquidity							
Op asset / op liab	1.10	1.17	1.15	1.15	1.07	1.13	1.17
NOWC Percent of sales		2.6%	2.7%	2.6%	1.9%	1.8%	2.5%
Solvency							
Debt to assets	14.0%	20.7%	18.3%	14.4%	14.0%	14.0%	13.6%
Debt to equity	68.9%	125.8%	123.0%	91.4%	77.0%	73.9%	65.7%
Other liab to assets	5.3%	9.2%	7.8%	10.7%	11.4%	11.1%	10.7%
Total debt to assets	19.3%	30.0%	26.1%	25.1%	25.4%	25.1%	24.3%
Total liabilities to assets	79.7%	83.5%	85.1%	84.2%	81.8%	81.1%	79.2%
Debt to EBIT	2.10	4.53	3.32	2.30	1.20	2.50	2.48
EBIT/interest	9.65	7.81	7.94	10.04	23.08	10.95	11.02
Debt to total net op capital	35.4%	44.6%	44.7%	35.3%	32.1%	31.8%	30.3%
ROIC							
NOPAT to sales	1.3%	1.1%	1.1%	1.3%	2.7%	1.3%	1.3%
Sales to NWC		767.55	2,469.59	881.50	543.93	(1,985.33)	#DIV/0!
Sales to NFA		8.92	9.84	10.80	9.42	8.77	9.12
Sales to IC ex cash		8.82	9.80	10.67	9.26	8.81	9.12
Total ROIC ex cash		9.8%	11.3%	14.3%	25.4%	11.8%	12.2%
ROE							
5-stage							
EBIT / sales		1.7%	1.7%	1.9%	3.6%	1.7%	1.7%
Sales / avg assets		3.18	3.39	3.46	3.38	3.33	3.30
EBT / EBIT		88.6%	89.5%	91.7%	96.9%	90.9%	90.9%
Net income /EBT		60.3%	55.6%	69.5%	73.6%	79.0%	79.0%
ROA		2.9%	2.8%	4.1%	8.6%	4.1%	4.0%
Avg assets / avg equity		5.55	6.39	6.52	5.87	5.38	5.03
ROE		16.2%	17.9%	26.7%	50.7%	21.9%	20.3%
Payout Ratio		16.9%	15.4%	10.8%	5.0%	10.6%	10.7%
Retention Ratio		83.1%	84.6%	89.2%	95.0%	89.4%	89.3%
Sustainable Growth Rate		13.5%	15.1%	23.8%	48.1%	14.9%	13.9%

Appendix 8: 3-stage DCF Model

Cost of equity	
Market return	10.0%
- Risk free rate	2.75%
= Market risk premium	7.3%
* Beta	1.05
= Stock risk premium	7.6%
r = r_f+ stock RP	

Terminal year P/E	
year 7	15.50

	Year						
	1	2	3	4	5	6	7
First Stage			**Second Stage**				
Cash flows	2018	2019	2020	2021	2022	2023	2024
Sales	$205,482	$210,824	$216,095	$221,281	$226,371	$231,351	$236,209
NOPAT	$2,760	$2,831	$2,809	$3,098	$3,396	$3,551	$3,543
Growth		*2.6%*	*-0.8%*	*10.3%*	*9.6%*	*4.6%*	*-0.2%*
- Change in NOWC	2132	1256	149	147	144	141	137
NOWC EOY	*4708*	*5964*	*6113*	*6260*	*6404*	*6545*	*6682*
Growth NOWC		*26.7%*	*2.5%*	*2.4%*	*2.3%*	*2.2%*	*2.1%*
- Chg NFA	-1190	594	586	576	565	553	540
NFA EOY	*22,831*	*23,425*	*24,011*	*24,587*	*25,152*	*25,706*	*26,245*
Growth NFA		*2.6%*	*2.5%*	*2.4%*	*2.3%*	*2.2%*	*2.1%*
Total inv in op cap	943	1849	735	723	709	694	677
Total net op cap	27540	29389	30124	30847	31556	32250	32928
FCFF	$1,817	$982	$2,075	$2,375	$2,686	$2,857	$2,866
% of sales	*0.9%*	*0.5%*	*1.0%*	*1.1%*	*1.2%*	*1.2%*	*1.2%*
Growth		*-46.0%*	*111.2%*	*14.5%*	*13.1%*	*6.3%*	*0.3%*
- Interest (1-tax rate)	252	257	258	260	261	262	264
Growth		*2.0%*	*0.5%*	*0.5%*	*0.5%*	*0.5%*	*0.5%*
+ Net new debt	200	150	44	45	45	45	45
Debt	8745	8895	8939	8984	9029	9074	9120
Debt / tot net op capital	*31.8%*	*30.3%*	*29.7%*	*29.1%*	*28.6%*	*28.1%*	*27.7%*
FCFE w debt	$1,765	$875	$1,861	$2,160	$2,470	$2,639	$2,648
% of sales	*0.9%*	*0.4%*	*0.9%*	*1.0%*	*1.1%*	*1.1%*	*1.1%*
Growth		*-50.4%*	*112.6%*	*16.1%*	*14.4%*	*6.9%*	*0.3%*
/ No Shares	211.6	207.9	205.8	204.1	202.5	200.9	199.3
FCFE	$8.34	$4.21	$9.04	$10.58	$12.20	$13.14	$13.29
Growth		*-49.5%*	*114.8%*	*17.0%*	*15.3%*	*7.7%*	*1.1%*
* Discount factor	0.91	0.82	0.74	0.67	0.61	0.55	0.50
Discounted FCFE	$7.56	$3.46	$6.73	$7.13	$7.45	$7.27	$6.66
Third Stage							
Terminal value P/E							
Net income	$2,508	$2,574	$2,551	$2,838	$3,135	$3,289	$3,280
% of sales	*1.2%*	*1.2%*	*1.2%*	*1.3%*	*1.4%*	*1.4%*	*1.4%*
EPS	$11.85	$12.38	$12.40	$13.90	$15.48	$16.37	$16.46
Growth		*4.5%*	*0.1%*	*12.2%*	*11.3%*	*5.8%*	*0.5%*
Terminal P/E							15.50
* Terminal EPS							$16.46
Terminal value							$255.08
* Discount factor							0.50
Discounted terminal value							$127.91

Summary			
First stage	$11.01	Present value of first 2 year cash flow	
Second stage	$35.24	Present value of year 3-7 cash flow	
Third stage	$127.91	Present value of terminal value P/E	
Value (P/E)	**$174.17**	= value at beg of fiscal yr	2018