



Pitt Pharmacy Investment Portfolio

August Performance Evaluation 2018

Prepared by:
Corey Rantz, Cam Karnick, and Matt Brock

Reviewed by:
Sam Bott, Rick Jones, Collin Wolf, Rami Chammas

Overview:

This report is an evaluation of the holdings of the Pitt Pharmacy Investment Portfolio from the initial Investopedia purchases on 4/23/18 through the end of the day on 8/22/18, with focus on the period from 7/20 – 8/22. After initial investments, the account was valued at \$49,844.24. The total account value at the end of this period was \$54,486.05. The account also received dividend payments from Medtronic, Bristol-Myers Squibb, Abbvie, and Abbott. . The total of all dividends received during this period was \$144.20, bringing our total dividend payments received to \$303.65. Including cash and dividends, the portfolio had a total value of \$55134.53. Since initial investment, the portfolio saw a growth of 9.87%. In the period from, 7/20 – 8/22 the portfolio saw a growth of 4.03%

Monthly Gain: +4.03%

Quarterly Gain: +9.87%

Year to Date Gain: +9.87%

One-Year Gain: +9.87%

Figure 1: Current Securities

Company	Ticker	Monthly Performance	Overall Performance	Actual Holding Value
Abbott	ABT	+3.71%	+10.78%	\$5516.28
JNJ	JNJ	+6.96%	+6.09%	\$3634.47
Agios	AGIO	-16.22%	-11.24%	\$1296.93
Merck	MRK	+5.37%	+14.97%	\$5247.04
GSK	GSK	-0.79%	+3.41%	\$4154.00
Gilead	GILD	-4.59%	-0.35%	\$3469.54
Medtronic	MDT	+8.59%	+19.25%	\$5925.96
Concert	CNCE	-3.61%	-17.98%	\$409.24
Bristol Myers	BMJ	+6.81%	+18.19%	\$5875.29
United Health	UNH	+3.18%	+10.82%	\$5475.54
Abbvie	ABBV	+9.82%	+5.07%	\$5174.92
Novartis	NVS	+1.72%	+7.49%	\$5356.16
Idexx	IDXX	-0.91%	+24.38%	\$2950.68
Overall			Portfolio Value	\$54486.05
			Cash	\$344.83
			Total Dividend	\$303.65
			Total Account Value	\$55134.53

Figure 1: Current Securities. Data for the table was collected from Investopedia. All values represent the market close for the individual securities and the overall portfolio on 8/22/18. The performance section represents the growth of each security and the overall portfolio against the market close on 4/23, when all current securities were originally purchased.

Strongest Performing Sector:

Medical Devices

Our medical device holdings are seemingly fueled by the successful and innovative culture at Medtronic. Read more about their recent FDA approval and financial success in the Strongest Individual Holdings sections of this report.

Weakest Performing Sector:

Biotechnology

Concert continues to drive down our biotech performance. Concert pharmaceuticals seemingly have their entire future relying on the success of CTP-543. Although the past asset sale to Vertex provides hope for similar transactions in the future, the CTP-543 trials must be monitored and assigned most of the weight in the companies current landscape.

Strongest Individual Holdings: Monthly

Merck (MRK) +5.37%

Merck reported its Q2 earnings on July 27th posting a \$1.03 eps, beating the average analyst estimate by 3 cents per share. Sales of Keytruda also beat analyst expectations, surging 89.2% year over year to \$1.67 billion and overtaking rival Bristol-Myers Squibb's Opdivo. Despite this strong performance, investors seemed to have expected even larger gains in market share for the cancer therapy, as shares fell nearly 2.5% by close that day. However, the stock bounced back, jumping over 3% upon the announcement on July 31st that the FDA granted breakthrough therapy designation for Merck/Eisai's Lenvima in combination with Keytruda as therapy for previously treated patients with advanced and/or metastatic non-MSI-H/pMMR endometrial carcinoma. Later in the month, Lenvima was also approved by the FDA for the first-line treatment of unresectable hepatocellular carcinoma. Merck also saw success with another partnership as selumetinib, a MEK 1/2 inhibitor developed in partnership with AstraZeneca, was granted orphan designation by the European Medicines Agency for the treatment of neurofibromatosis type 1.

These developments led to an upward trend in Merck's stock throughout the month that peaked on August 20th. On that date, the company announced that the FDA approved a label expansion for Keytruda in combination with pemetrexed and platinum chemotherapy for first-line treatment of patients with metastatic nonsquamous NSCLC, with no EGFR or ALK genomic tumor aberrations. During this past month, Merck stock has reached 17-year highs almost exclusively on the back of Keytruda's meteoric performance. While the company has other significant growth drivers in Gardasil, Bridion, and Lynparza, the company is quickly becoming extremely dependent on Keytruda for growth. If Merck fails to produce a strong candidate from its admittedly anemic pipeline or Keytruda shows the slightest sign of slowing down, it is likely this stock will not rise much higher before a significant sell-off ensues.

Abbvie (ABBV) +9.82%

On July 26th it was announced that Keller Lenkner LCC filed a class action suit against AbbVie. The complaint charges that AbbVie and one of its officers violated the

Securities Exchange Act of 1934 by issuing false and misleading statements, in both press releases and filings with the U.S. Securities and Exchange Commission, regarding the results of the Company's \$7.5 billion modified Dutch auction tender offer that expired on May 29, 2018 (the "Tender Offer"). Specifically, the complaint alleges that before the opening of trading on May 30, 2018, the Company announced that it expected to acquire 71.4 million of its shares tendered at or below \$105 per share. As a result of that news, the price of AbbVie securities significantly increased. However, after the close of trading on May 30, 2018, the Company surprised the market by releasing materially different results for the Tender Offer due to certain omissions, announcing that the Company expected to acquire only those shares tendered at or below \$103 per share. The price of the Company's shares fell sharply on the news, harming all investors that purchased AbbVie securities at artificially inflated prices on May 30, 2018.

As a result of this news shares fell nearly 3% by the close of trading the following day, July 27th. More bad news for the company was announced on August 7th when Express Scripts announced that it will be dropping Mavyret from its formulary in 2019. Despite all this negative turn of events for the company and the slowing momentum of Humira and Mavyret, investors have been confident in the company. This is due in large part to the high potential for non-Humira growth with AbbVie's current drugs and promising pipeline candidates, as well as the company's very high dividend yield of 3.96%.

Medtronic (MDT) +8.59%

On July 31st, Medtronic announced that it received FDA approval for the Implantable System for Remodulin (developed by United Therapeutics Corporation) to treat patients with pulmonary atrial hypertension. On the back of announcements like this, Medtronic's stock rose steadily, but slowly throughout the month leading up to the release of the company's fiscal Q1 earnings report on August 21st. Medtronic beat on the top and bottom lines producing an EPS of \$1.17 per share, surpassing estimates by 6 cents. These earnings were due largely to a strong showing from the company's cardiac and diabetes products, which helped fuel organic revenue growth rates of nearly 7% compared to the prior-year period. Medtronic's coronary and structural heart division showed double-digit percentage sales gains due largely to the success of its CoreValve Evolut PRO, and its diabetes group saw a 27% jump in sales, driven by the popularity of its latest MiniMed insulin pump system. With these positive results investors are seeing more potential than ever for the company as its stock price rose nearly 6% to an all-time high.

Strongest Individual Holdings: Overall

IDEXX Labs (IDXX) +24.38%

On August 1st, IDEXX Laboratories announced its Q2 results beating analyst estimates by 5 cents, posting an EPS of \$1.23. This represents a 29% increase year-over-year. Second quarter results were driven by robust global gains in Companion Animal Group ("CAG") Diagnostics recurring revenue, including strong, double-digit organic revenue growth in IDEXX VetLab[®] consumables and reference laboratory diagnostic and consulting services. The company is increasing its 2018 EPS outlook to \$4.10-\$4.20 per share. While growth was mostly attributed to its Companion Animal Group, the company is fairly diversified with holdings in water treatment and Livestock, Poultry and Dairy, both of which also reported increased revenues. As a result of this success IDEXX's stock has reached an all-time high. However, there is speculation among analysts that the stock may be topping out. Analyst caution certainly isn't quelled by the fact that

Jonathan W Ayers, Chairman, president and CEO of the company recently sold 30,000 shares of his stock worth a total of \$7.4 million.

Medtronic (MDT) +19.25%

Medtronic continues to be a top performer, as it has since our portfolio's inception. All lines of the company's business continue to perform well, particularly the diabetes and cardiovascular divisions. The company continues to bring innovative products to market and engage in fruitful partnerships. However, the medical device market remains competitive particularly in the diabetes space. Medtronic faces stiff competition from Tandem Diabetes, Dexcom (both of which have released products that directly compete for Medtronic's market share), and others. Despite this competition, Medtronic continues to release innovative products that are diversified throughout the medical device industry.

Bristol-Meyers Squib (BMY) +18.19%

BMY also holds its place as a top performer in the portfolio. Opdivo continues to be a main growth driver for the company. In addition to falling behind Merck's Keytruda, Opdivo has also seen a recent setback in the form of its failure to get a recommendation for approval from European regulators in combination with Yervoy as first-line treatment for kidney cancer. The news caused BMY's stock to fall over 3% despite releasing Q2 earnings in which they beat estimates and raised their outlook the same day. However, the stock was able to bounce back steadily throughout the month, especially upon the news that Opdivo received FDA approval for the treatment of small cell lung cancer. While BMY's stock price appears to be dependent on what is currently happening with Opdivo, the company also has a reliable blockbuster in Eliquis. The success of these two drugs, as well as, an extensive pipeline should provide large, relatively predictable cash flows for the foreseeable future.

Weakest Individual Holdings: Monthly

Agios Pharmaceuticals (AGIO) -16.22%

On August 2, 2018 Agios Pharmaceutical announced its 2018 Q2 Earnings which showed improvement over earnings from Q2 2017 and beat analyst expectations. However, the company did still report a loss of \$1.19 per share which drove down the stock down 10% to \$80.41 at the market close on August 2nd.

Gilead Sciences (GILD) -4.60%

Gilead took a large hit in the middle of August due to positive phase 3 results from a monthly HIV injection consisting of cabategravir and rilpivirine that is being developed by ViiV Healthcare. When considering both the results from this ATLAS study showing that the injection is just as effective at suppressing the virus as Gilead's regimen of 3 oral medications and the announcement of Gilead's Chief Medical Officer leaving the company, the stock dropped over 6% in just one week and is now at \$73.82 per share.

Concert (CNCE) -3.61%

Throughout the month of August, Concert saw a very steady decline from \$17.50 to \$15.74, most likely the result of increased spending on Research and Development due to the Phase II trial of CTP-543 which they are expecting to have results from at the end of 2018. With the stock consistently seeing losses of this

magnitude since March, it is hard to tell if this drop is due to this poor financial performance presented in August or the litigation surrounding the CTP-543 patent which was mentioned in the previous month's update.

Weakest Individual Holdings: Overall

Concert Pharmaceuticals (CNCE) -17.98%

With two consecutive appearances in this section of the report and an almost 18% drop in 3 months, CNCE should be monitored very closely. Especially with the results from CTP-543 trial being released at the end of 2018 which could cause problems due to either poor results or more complication regarding the patent litigation. Since this company only has 5 drug candidates in its pipeline and no approved products currently producing revenue, CNCE is very dependent on these few getting approved and starting to generate revenue and start offsetting the R&D costs. More information on the company's performance this month can be found in the "Weakest Individual holdings: Overall" section of this report.

Agios Pharmaceutical (AGIO) -11.24%

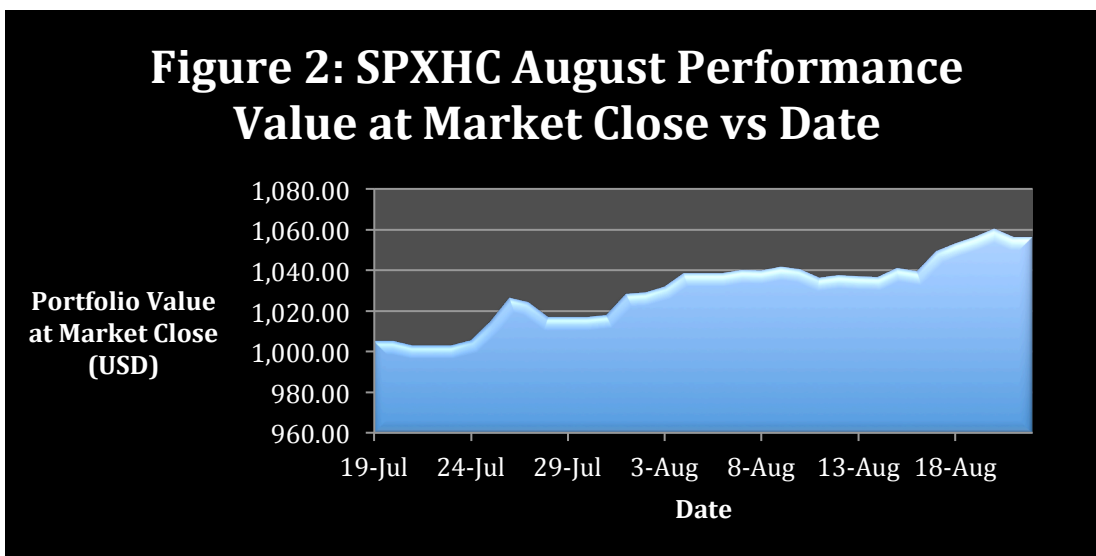
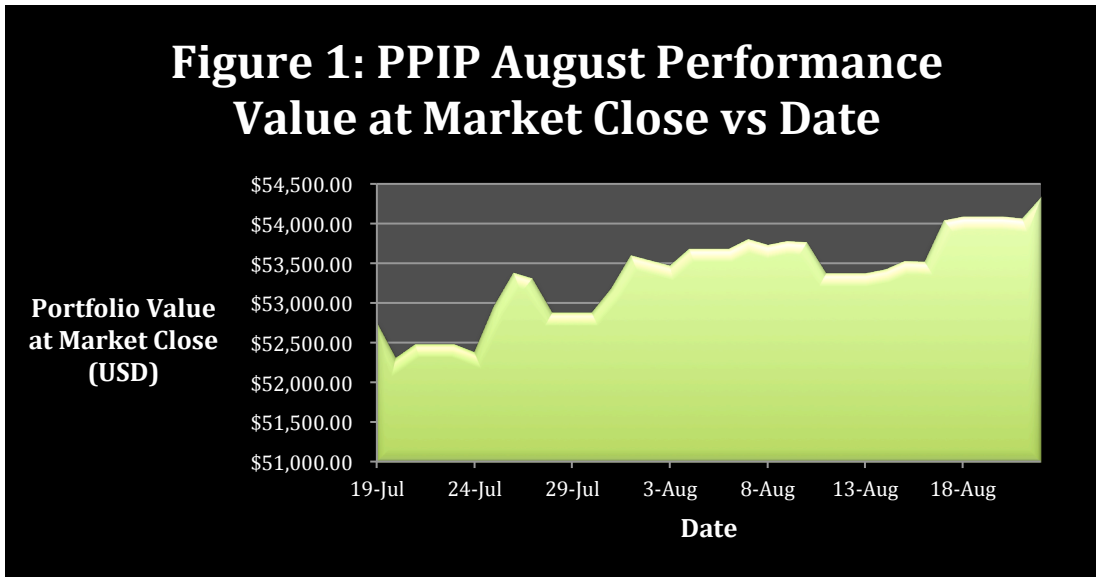
AGIO hit a high of \$99.50 at the end of June, leaving them with an 80% gain over the previous 12 months. However, after announcing that they were licensing the development and commercialization of their therapy for Acute Myeloid Leukemia, Tibsovo (ivosidenib), to CStone Pharmaceuticals in China, the share price of AGIO dropped to \$82.50. This deal may at first appear rather extreme, but AGIO still retains its rights to development and commercialization in all territories outside of China. Given that many of the largest markets do not include China, this decision may be a good one, especially when considering the \$500 million payments that AGIO could receive from the deal. No action is need at this time.

Gilead (GILD) -0.35%

Just one week after our purchase of GILD at the end of April, this California-based Biotechnology company made a poor earnings announcement which cause the stock to lose almost 5% in one day. They later recovered these loses and continued their run up to \$79 per share by the end of July. However, the most recent news regarding the ATLAS study and the changes to their C-suite have brought the share price back down to our purchase price. More information regarding these recent occurrences can be found in the "Weakest Individual Holding: Monthly" section of this report. No action for GILD is need at this time.

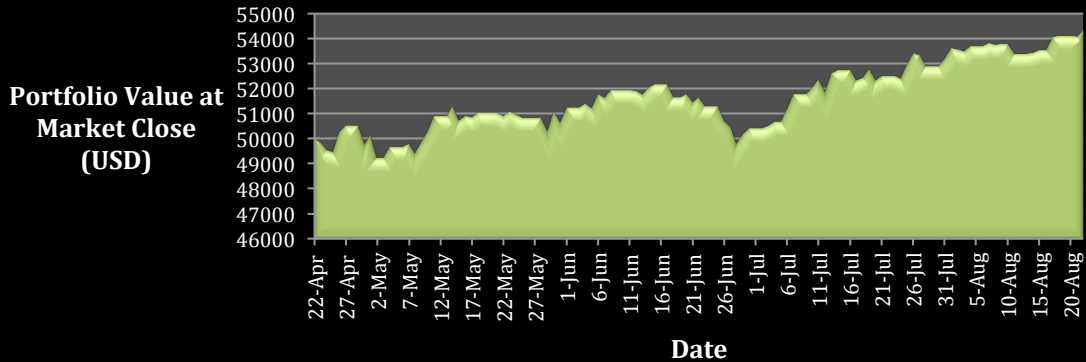
Market Comparison:

The Pitt Pharmacy Investment Portfolio saw a growth of 4.03% from the period of 7/20/18 to 8/22/18. Since the original investment on 4/23/18, the portfolio is up 9.87% overall. Over this same period, the S&P 500 Healthcare Index (SPXHC) had a monthly gain of 5.05%, and an overall gain of 11.20%.

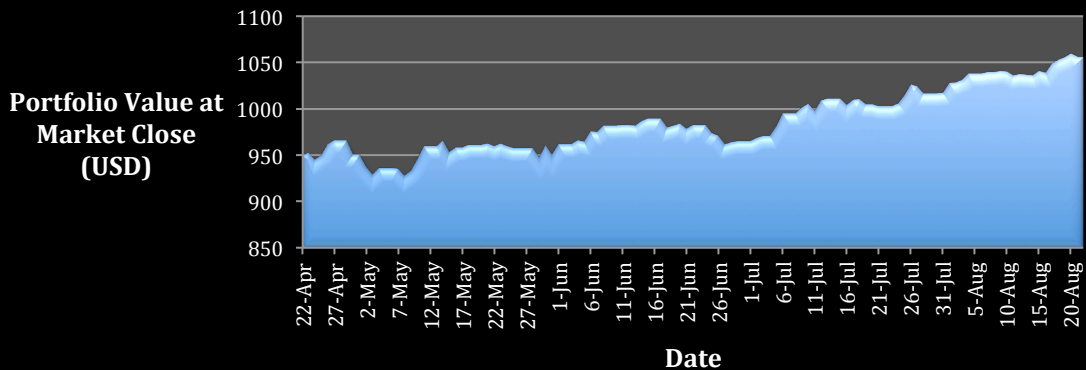


Figures 1&2: The above figures depict the trend of the PPIP and the SPXHC from 7/20/18 to 8/22/18. The SPXHC is an index comprised of the top companies in the healthcare sector and is a solid indicator of the sectors overall stability. The graphs depict a striking resemblance in growth trends between these two portfolios. The trend similarity can be denoted by similar stability between the two portfolios. This month, the SPXHC outpaced out portfolio.

**Figure 3: PPIP Overall Performance
Value at Market Close vs Date**



**Figure 4: SPXHC Overall Performance
Value at Market Close vs Date**



Figures 3&4 : The above figures depict the trend of the PPIP and the SPXHC from initial investment on 4/23/18 to 8/22 /18. The SPXHC is an index comprised of the top companies in the healthcare sector and is a solid indicator of the sectors overall stability. The graphs once again depict a striking resemblance in growth trends. The trend similarity can be denoted by similar stability between the two portfolio s. Overall, both portfolios have performed almost identically, but the SPXHC has outpaced our portfolio.

Conclusion: This month, the Pitt Pharmacy Investment Portfolio saw a growth of 4.03% and relative stability when compared to the S&P 500 Health Care Index. Overall, the portfolio has grown 9.87% and showed continued stability and potential for growth over the first four months. The dividend payments have begun to accumulate and will need to be reinvested in the next quarter. Despite a few strong declines during the month, the overall outlook of the entire portfolio is very positive. Current market research shows mostly positive futures for all of the individual securities in the portfolio.