



Pitt Pharmacy Investment Portfolio

July Performance Evaluation 2018

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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 7/20/18, with focus on the period from 6/23 – 7/20. After initial investments, the account was valued at \$49,937.11. The total account value at the end of this period was \$52,988.28. The account also received dividend payments from United, Gilead, Merck, and GSK. The total of all dividends received during this period was \$135.15. Since initial investment, the portfolio saw a growth of 5.84%. In the period from, 6/23 – 7/20 the portfolio saw a growth of 2.40%

Monthly Gain: +2.40%

Quarterly Gain: +5.84%

Year to Date Gain: +5.84%

One-Year Gain: +5.84%

Figure 1: Current Securities

Company	Ticker	Share Price Market Close on 7/20	Monthly Performance	Overall Performance	Actual Holding Value
Abbott	ABT	63.32	\$115.92	\$339.36	\$5318.88
JNJ	JNJ	125.85	\$81.27	-\$27.81	\$3397.95
Agios	AGIO	91.06	-\$107.44	\$86.87	\$1548.02
Merck	MRK	65.52	\$307.80	\$415.72	\$4979.52
GSK	GSK	41.87	\$98.00	\$170.00	\$4187.00
Gilead	GILD	77.37	\$296.10	\$154.63	\$3636.39
Medtronic	MDT	88.02	\$75.02	\$487.94	\$5457.24
Concert	CNCE	16.33	-\$79.04	-\$74.36	\$424.58
Bristol Myers	BMY	56.71	\$152.29	\$529.62	\$5500.87
United Health	UNH	252.7	-\$35.07	\$365.61	\$5306.7
Abbvie	ABBV	88.91	-\$242.74	-\$213.06	\$4712.23
Novartis	NVS	82.27	\$461.44	\$282.24	\$5265.28
Idexx	IDXX	248.14	\$302.88	\$605.28	\$2977.68
				Portfolio Value	\$52712.34
				Cash	\$344.83
				Dividend	\$344.83
				Total Account Value	\$53057.17

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 7/20/18. 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:

Molecular Diagnostics

Although our only company in the sector, IDEXX has seen back-to-back months of double digit gain. More about this exciting company will be explained in the sections below.

Weakest Performing Sector:

Biotechnology

The Biotechnology sector saw another disappointing month in the portfolio. The volatility from the microcap Concert Pharmaceuticals continues to trend in the wrong direction. Abbvie has taken some major hits since originally posting as a top earner in May. The issues with this sector are further described below. If this trend continues, further comparisons and market research will need to be done on this sector.

Strongest Individual Holdings: Monthly

IDEXX Laboratories (IDXX) +14.09%

IDEXX continues to perform strongly with its second straight month in our portfolio's top 3 monthly earners. The leading molecular diagnostic company's recent success has been driven in large part by a strong global rise in its Companion Animal Group (CAG) Diagnostics' revenues. This upside has been driven by strong consistent gains from recurring CAG revenues, high premium CAG instrument placements, and continued high growth in digital business. Company management is confident that this trend will continue in future quarters. The company is set to announce its Q2 earnings on August 1st.

Novartis (NVS) +11.13%

Novartis exhibited an extremely productive month, kicking off with the announcement that the company would spin off its Alcon eye-care devices unit into a separate publically traded company. The announcement resulted in a 3.5% surge in its stock. Management claimed the decision "would allow our shareholders to benefit from the potential future successes of a more focused Novartis and stand-alone Alcon." If the Alcon spinoff succeeds, Novartis will retain control of the ophthalmic drugs, while the new independent Alcon would focus on the surgical and vision care markets. The company expects the spinoff to be completed in the first half of 2019 and for Alcon to be worth \$20-30 billion. Additionally, the company announced a share buyback program of up to \$5 billion funded through the proceeds of the divestment of its consumer health joint venture stake to GlaxoSmithKline.

A few days later on July 2nd, the company announced a distribution and commercialization partnership with Adamis Pharmaceuticals for EpiPen competitor: Symjepi via the company's Sandoz division. Under terms of the deal, Adamis will receive an upfront fee and performance based milestone payments from Sandoz, in exchange for the U.S. commercial rights to Symjepi, and Adamis and Sandoz will share net profits equally. Novartis' stock rose roughly 3.0% in the days following the announcement. However, it was not all-positive news for the company this month as Novartis also announced that it was pulling out of antibiotics research and faced further scrutiny over its involvement with former Trump lawyer, Michael Cohen. Additionally the company's Q2 earnings narrowly missed estimates despite strong revenues driven by

Cosentyx and Entresto. In significant PR move to alleviate negative press and appease Trump himself, the company announced that it would freeze drug prices in the U.S., resulting in a slight dip in its stock.

Gilead (GILD) +11.13%

On June 29th, Gilead was granted marketing authorization by the European Commission for HIV-1 treatment, Biktarvy. The drug was earlier approved by the FDA in February 2018 and approval by the EC will further strengthen the company's HIV franchise. The company had further success in Europe a few days later when the European Medicines Agency's Committee for Medicinal Products for Human Use (CHMP) issued a positive opinion on the company's Marketing Authorization Application for CAR T therapy, Yescarta, as a treatment for adult patients with relapsed or refractory diffuse large B-cell lymphoma and primary mediastinal large B-cell lymphoma, after two or more lines of systemic therapy. This is a positive sign for the drug's potential approval in Europe which would boost the growth prospects of the therapy significantly given the market potential. However rival CAR-T therapy, Kymriah, from Novartis also received the same distinction from the European regulatory committee, albeit for different indications. In mid-July, the company announced that its Kite unit would partner with privately held Gadeta B.V. to develop new cancer therapies called gamma delta T cell receptor therapies. Gadeta's proprietary technology in this area, which is a type of cell therapy, may be used to treat blood cancers and solid tumors. Gilead will announce Q2 earnings on July 25th. Analysts are confident that the company's EPS for the quarter will beat estimates due to the strong performance of its HIV franchise.

Strongest Individual Holdings: Overall

IDEXX Laboratories (IDXX) +25.51%

Together with its subsidiaries, IDEXX Laboratories, develops, manufactures and distributes products and services primarily for the companion animal veterinary, livestock and poultry, dairy and water testing markets worldwide. Going forward, analysts expect the company's expanding CAG revenues, its Water Business' consistent organic growth, as well as its management's consistent share buybacks to continue to add value to the stock in the near term. Long term success for the company hinges on its ability to sustain this growth in the face of extensive global competition and to cope with heavy reliance on third-party distributors.

Bristol-Myers Squibb (BMY) +10.65%

BMY's continued success since being one of the top monthly performers last month remains driven by the extremely strong performance of its cancer drug, Opdivo. On June 29th, the drug was recommended by CHMP of the European Medicines agency for expanded approval of its current indications to include the adjuvant treatment of adult patients with melanoma with involvement of lymph nodes or metastatic disease who have undergone complete resection. This represents the first time the CHMP has recommended a PD-1 inhibitor as an adjuvant treatment for any type of cancer. The drug was also approved by the FDA in combination with low dose Yervoy for the treatment of adult and pediatric patients aged 12 years or older with microsatellite instability high or mismatch repair deficient metastatic colorectal cancer, representing the first immunology combination therapy approved for this type of cancer. While Opdivo continues to expand its indications and generate solid revenues, BMY will continue to face very tough competition from Merck's Keytruda and Roche's Tecentriq. These drugs have also

been performing strongly, and if the competition keeps up, BMY must produce other strong performers from its pipeline to sustain growth.

Medtronic (MDT) +9.82%

Medtronic is yet again on of the portfolio's top performing stocks overall, a designation it's had since initial investment. The company continues to perform strongly in on lines of business, particularly in the diabetes and cardiovascular divisions. In addition to continued growth in its diabetes division (in the form of expanded indication for the MiniMed™ 670G system), the company also recently secured a \$472 million U.S. defense contract for its cardiovascular products as well as FDA approval for a less-invasive implant approach of its HVAD™ System. The HVAD system, a left ventricular assist device for patients with advanced heart failure, is the smallest commercially available LVAD and the only approved in the U.S. form implant via thoracotomy, a small lateral, surgical incision between the ribs on the left side of the chest. The company continues to make solid innovations such as this that keep it on top of the medical device market. Given its continued success there is speculation among analysts the stock has may one day replace Pfizer on the Dow Jones Industrial Average.

Weakest Individual Holdings: Monthly

Concert Pharmaceuticals (CNCE) -15.69%

Concert has continued its poor performance for the second month in a row. With no new developments within the organization, this month's move can be attributed to its high volatility and its ongoing litigation with the CTP-543 litigation. This litigation should be closely monitored as well as the company as a whole due to its volatility but no portfolio action is needed at this time.

Agios Pharmaceutical (AGIO) -6.49%

After a very strong 2-month performance from AGIO advancing 40%, half of these earnings were erased within a week. While this is a serious drop for, there were no new developments within the organization that would have warranted such a move. This would suggest that this event is more representative of a correction after the large gains from the previous months. Also, during the week of the collapse, the trading volume for AGIO was significantly lower than both the average for this stock as well as the trading volume experienced during the previous 2-month advance. This low volume suggests that this move is likely a short-term retracement in response to the rapid advances in the previous months. No action is needed at this time.

Abbvie (ABBV) -3.92%

After a new tax bill is passed that rewards companies for benefits companies that move profits out of the United States, Abbvie is used as one of the primary examples as reporters explain the changes. This resulted in a 9% drop in the share price for ABBV which was later pushed lower by unfavorable phase III trial results. In this trial, Abbvie's Ibrutinib failed to meet its endpoint for the treatment of diffuse large B-cell lymphoma. However, the drug did show clinically meaningful improvements in a subpopulation of patients with this diagnosis and will be further evaluated in this population. Also, Abbvie has been facing litigation regarding the misrepresentation of risks associated with AndroGel. Of the current trials, one verdict of \$140 million was overturned, another verdict of \$150 million was settled at \$3.2 million and Abbvie won several others. No action is needed at this time, however, the future trials of Ibrutinib and the litigation surrounding AndroGel need to be monitored moving forward.

Weakest Individual Holding: Overall

Johnson and Johnson (JNJ) -0.20%

While this pharma giant had taken a hit in the previous few months, it has started to recover and is now less than one percent below our purchase price. JNJ has recently been dealing with litigation regarding assertions that their talc based products contain asbestos and have caused cancer. A verdict was made on July 12th for JNJ to pay \$4.69 billion to 22 women that have developed ovarian cancer. However, JNJ has previously overturned similar verdicts and plans to fight this one the same. The company is also working to extend the patent of Xarelto to 2034. No action is needed but the status of this litigation and the patent extension should be monitored.

Concert Pharmaceuticals (CNCE) -14.90%

This volatility of CNCE has earned them notice in each month's update as both one of the strongest performing and weakest performing stocks. With ongoing trials for several deuterium analogs, this company has experienced growth from future potential returns as well as litigation regarding the parent for CTP-543. With no news on the results of the trials or the outcome of the litigation, this company should be monitored closely but no action should be taken yet. More information regarding the recent litigation can be found in the "Weakest Individual Holdings: Monthly" section.

Abbvie (ABBV) -3.80%

Abbvie had seen good performance in May due to a good earnings report for Q1 2018. However, the stock's poor performance in June and July has wiped out the gains from this May and proceed even lower. This poor performance is due to a combination of competition for Humira, reports of bad data from Ibrutinib's phase III trial, and litigation regarding Abbvie's misrepresentation of Androgel's risks. While it appears that Abbvie is handling both the poor trial data and Androgel litigation well, these should be continually monitored. More information regarding the Ibrutinib trial and litigation can be found in the "Weakest Individual Holdings: Monthly" section.

Market Comparison:

The Pitt Pharmacy Investment Portfolio saw a growth of 2.40% from the period of 6/23/18 to 7/20/18. Since the original investment on 4/23/18, the portfolio is up 5.84% overall. Over this same period, the S&P 500 Healthcare Index (SPXHC) had a monthly gain of 2.34%, and an overall gain of 5.85%.

Figure 1: PPIP July Performance Value at Market Close vs Date

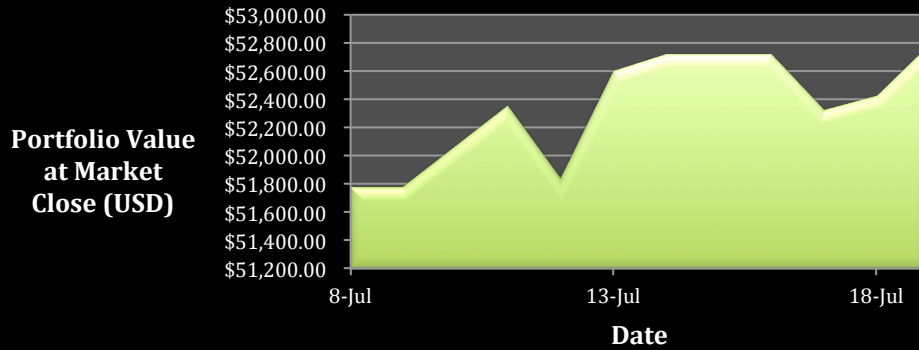
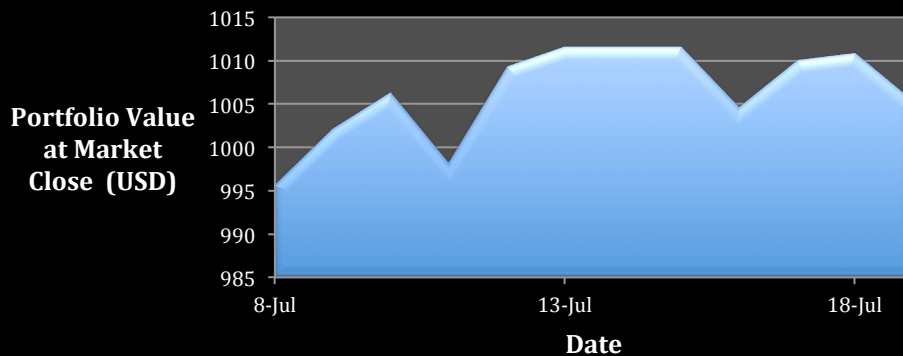


Figure 2: SPXHC July Performance Value at Market Close vs Date



Figures 1&2: The above figures depict the trend of the PPIP and the SPXHC from 6/23/18 to 7/20/18. 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. Despite the similar stability, the PPIP was able to outpace the growth of the SPXHC: 2.40% vs 2.23%, respectively. The data for the figures was collected from yahoo finance.

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

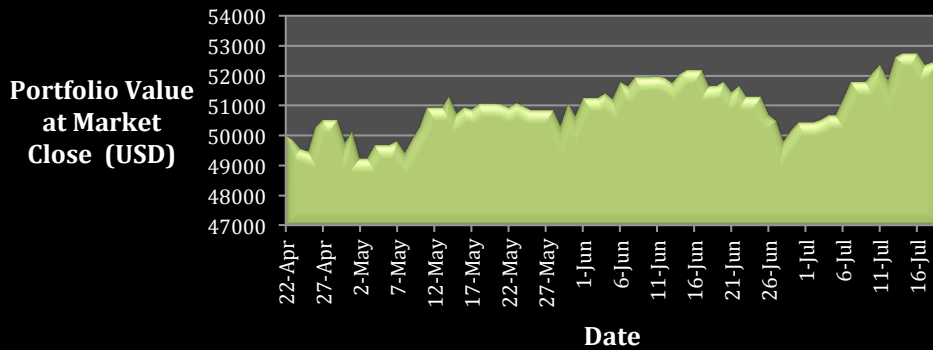


Figure 4: SPXHC Overall Performance Value at Market Close vs Date



Figures 3&4 : The above figures depict the trend of the PPIP and the SPXHC from initial investment on 4/23/18 to 7/20 /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, with the SPXHC posting a growth of 5.85% and the PPIP posting a growth of 5.84% .

Conclusion: This month, the Pitt Pharmacy Investment Portfolio saw a growth of 2.40% and relative stability when compared to the S&P 500 Health Care Index. Overall, the portfolio has grown 5.84% and showed continued stability and potential for growth over the first three 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. Currently, there is nothing to warrant any holding adjustments for the portfolio.