Quarterly Portfolio Report – Third Quarter 2018

(Vol. XV, No. 1)

Dear Valued Clients:

We are pleased to provide you with the Third Quarter 2018 Report for Pennsylvania Trust's Multi-Cap Value strategy.[1] In the third quarter, the Multi-Cap Value strategy gained 5.56%, net of fees, versus a 7.71% return by the S&P 500 Index, our performance benchmark, which reports results without accounting for fees. Below are the strategy's results and equity-only results for the year to date and since inception (May 2004), net of fees, versus the benchmark:

	YTD (9/30/18)		Cumulative Since Inception		Annualized	
	Gross	Net	Gross	Net	Gross	Net
MCV Strategy	14.0%	13.47%	254.89%.	217.60%	9.24%	8.40%
MCV Strategy Equity Only	15.17%		286.50%		9.89%	
S&P 500	10.56%		249.96%		9.13%	

Past performance is no guarantee of future results. (Sources of index performance: Bloomberg; WSJ Market Data Group)

The strategy typically holds some cash to help cushion the Model Portfolio during market declines and to purchase new securities and/or add to existing holdings when prices are attractive. Cash comprised, on average, about 6.5% of the strategy's assets in the quarter. Our equities alone returned 6.12%.

Note: At the time of this writing, the fourth quarter had already begun with a sudden drop in stock prices as 10-year Treasury yields spiked above 3.2%, up from 2.9% a month ago. The selloff has raised fresh concerns among many investors and Wall Street prognosticators that this long-running bull market may finally be over. For the reasons set forth below, we don't believe this to be the case. So far, this looks to us more like a garden-variety 8% to 12% correction, something which usually happens once or twice a year. Most of the time these pullbacks help lay the ground for the next stage of the advance.

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Major U.S. stock indices hit all-time highs in the third quarter, shrugging off, among other things, another interest rate hike by the Federal Reserve (along with a promise of several more to come), the escalating trade battle with China, slowing economic growth outside the U.S., rising oil prices, and potential new legal headaches for the White House. By now the market's resilience in the face of such obstacles should come as no surprise. Investors have had it good for an unusually long time. In August, no less an authority than The Wall Street Journal declared this to be the longest equity bull market in American history. (Source: "*U.S. Stocks Poised to Enter Longest-Ever Bull Market*," The Wall Street Journal, August 21, 2018) It has now been a little more than nine-and-a-half years -- 3,492 days as of September 30 -- since share prices hit bottom on March 9, 2009. While there have been five separate pullbacks of at least 10%, stocks have thus far avoided a bear-market, commonly defined as a drop of 20% or more. The

[1] The commentary herein reflects our opinions and is not intended to be a forecast of future events, a guarantee of future results, or investment advice. All commentary concerning portfolio performance and specific portfolio holdings refers to the PTC Multi-Cap Value Composite and the Model Portfolio, respectively, and not to specific client accounts. See Addendum to Quarterly Portfolio Report attached hereto for additional important disclosures.

S&P 500 has climbed more than 325% over the period, a powerful move that almost no one foresaw and many still haven't come to grips with.

A lot has changed since the dark days of September 2008, when the bankruptcy of Lehman Brothers threatened to bring down the entire financial system. The event itself marked neither the beginning of the crisis, nor its nadir. But it proved to be the tipping point when a surge in systemic risk triggered by a tidal wave of bad subprime debt could no longer be ignored. Lehman's failure destroyed trust in securities markets, caused the flow of credit to dry up, and sparked a run on major lending institutions around the world. What came afterwards was the worst stock-market meltdown since the Great Depression. It forced authorities to take drastic action to restore confidence and arrest the freefall in share prices. In the U.S., disaster was averted, but only after a costly government-financed recapitalization of the banking industry and a massive monetary boost from the Fed. The effects are still felt today. Fortunately for most investors, the damage to their portfolios, though painful, was not fatal. Even so, memories of the financial crisis remain vivid, and the fear is that another calamity may be lurking just around the corner. It is one of the reasons why the doomsayers have gotten increasingly vocal the longer this bull market goes on.

To be sure, like all good things, bull markets eventually come to an end, and this one will be no different. But their longevity has never been simply a function of the calendar. Contrary to recent headlines, not everyone agrees that this bull market is the oldest. Some argue that the award properly belongs to the technology-driven boom that ended in March 2000. According to this view, that bull market lasted almost 4,500 days, because it started not, as is often claimed, in October 1990 -- following a 19.9% drop that never quite crossed into bear-market territory -- but after the historic October 1987 crash, when U.S. stocks plunged more than 30% over a four-day stretch. By this yardstick, it would take almost three more years of gains to break the record. (Sources: "*No, This Is Not the Longest Bull Market Ever*," barrons.com, August 22, 2018; "*Bull Market Beliefs: Stock Experts Differ on Market Cycles*," reuters.com, August 20, 2018) Others date the start of the current run from October 2011 rather than March 2009. By October 2011, most major U.S. stock indices and more than 70% of U.S. stocks had fallen 20% or more from their peak. And even though the S&P 500's 19.4% closing loss fell just short of the official bear-market threshold, the index had dipped as low as 21.6% in intraday trading. (Sources: "*Calling Bull on the Longest Bull Market*," The Wall Street Journal, August 22, 2018; "*Taking Exception to the Longest Bull Market Story*," Strategas Research Partners, August 22, 2018) This would leave the S&P 500 at least two years (and possibly as much as five years) away from setting a new mark.[2] In short, since the age of bull-market cycles seems to be in the eye of the beholder, we believe investors would be better served by focusing their attention elsewhere.

Here's a good place to start. Even with U.S. stocks trading near all-time highs, there is virtually none of the widespread euphoria that has marked previous market tops.[3] Typical were the results of a weekly survey of investor sentiment conducted near the end of the third quarter. Fully a third of respondents described themselves as "bearish" about the stock market's prospects over the next six

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[2] Still others speak of a "stealth" bear market in 2015-16. Back then, the S&P 500 fell only 14.2%, but the median stock in the index slid 25%, with Apple, Amazon, and Netflix each losing roughly 30%. The small-cap Russell 2000 index, S&P 500 transportation stocks, and major emerging market indices also suffered declines of 25% or more. (Sources: "*The Longest Bull Market of All-Time?*" theirrelevantinvestor.com, August 5, 2018; "*No, This Is Not An 8-Year Bull Market for the S&P 500*," allstarcharts.com, March 21, 2017)

[3] Now that the bitcoin bubble has deflated, the current investor frenzy over shares of Canadian marijuana companies is a notable exception.

months, while another 36% said they were "neutral"; both readings are above their historical averages. The same survey generated similar findings in each of the past seven months. (Source: American Association of Individual Investors) This lack of enthusiasm isn't a recent phenomenon but goes all the way back to the financial crisis. It is not for nothing that has this been called the "most unloved bull market ever," as individual investors have remained on the sidelines for much of the time. From March 2009, when share prices started rising, through the third quarter of this year, U.S. equity mutual funds and exchange-traded funds have seen total net outflows of more than $290 billion, as compared with more than $2.1 trillion of net inflows into low-yielding bond funds. (Source: Investment Company Institute) This year has seen more of the same. Net withdrawals from U.S. equity funds through the first nine months of 2018 amounted to almost $75 billion, while at the same time almost $175 billion moved into bond funds. (Source: Bespoke Investment Group)

Investors' relative indifference toward stocks is also reflected in the shrinking number of shares available for purchase on American exchanges. The drop stems in large part from a steady rise over the years in mergers and acquisitions, public companies going private, stock buybacks, and the like. As shares are removed from circulation, the amount of new issuance from initial and secondary public offerings has not kept pace. This trend toward de-equitization picked up speed during the long era of easy money, as companies gorged on cheap debt to pay for large buybacks (and, to a lesser extent, for capital improvements) rather than issue new shares. In 2016, net equity supply in the U.S. contracted for the first time ever. By some estimates, the pool of stocks on major U.S. exchanges is shrinking by as much as 1.5% annually, with the value of retired shares potentially reaching $400 billion this year alone.[4] (Source: "*Dearth of Equity Keeps Stock Market Bull Alive*," ca.reuters.com, September 18, 2018)

Perhaps all anyone can say for sure about the post-crisis bull market is that stocks have benefitted greatly from a mix of strong corporate earnings, low inflation, and investor-friendly monetary and fiscal policies. These tailwinds remain largely in place, which should bode well for the future. While interest rates have certainly been on the rise, they still sit at relatively low levels. Freed over the past 12 months of some tax and regulatory burdens, America's economy is now growing at its fastest pace in more than a decade. Gross domestic product increased 4.2% in the second quarter and is on track to hit 3.0% for the full year. Households are spending at a healthy clip, as consumer confidence hit an 18-year high in September. (Source: The Conference Board) At the same time, earnings at S&P 500 companies surged almost 25% in each of the first two quarters of 2018 versus the same periods last year. Forecasts call for a healthy 19% year-over-year increase in the third quarter. (Source: FactSet) This blistering pace is certain to moderate in the future, but the upward momentum presently shows no indication of stalling out. Why does this matter? The U.S. has *never* fallen into recession when corporate profits have been this strong. (Source: Strategas Research Partners) Ironically, this good economic news is now being cited as a cause for pessimism on the ground that things can only get worse from here.

Yet to us, these are pretty bullish signs for a stock market that has already come a long way. History shows that the time to worry most is when everyone becomes convinced that share prices can only go higher. This often signals a point of maximum demand, and it is when the risk of a market downturn has been the highest. But today, the prevailing mood can hardly be described as exuberant. Cautious, if not downright uneasy, is more accurate.

[4] For example, there were approximately 3,600 firms listed on the New York Stock Exchange in 2016, down from a peak of 7,500 almost 20 years earlier. (Source: "*Eclipse of the Public Corporation or Eclipse of the Public Markets?*" NBER Working Paper No. 24265, January 2018)

None of this means it will be all smooth sailing ahead. For one thing, market seasonality always seems to play an outsized role in the fourth quarter. October is a notoriously tough month for stocks (and it is thus far living up to its reputation). Indeed, there may be more turbulence than usual this time ahead of what promises to be a highly-contentious midterm election in early-November. Returns are most often substantially lower during federal election years than in off years, with midterm years like this one faring worst. The good news is that stocks almost always rally into the end of the year after the election is over, no matter who wins.[5] (Sources: "*How the Midterm Elections Could Impact the Stock Market*," barrons.com, September 4, 2018; "*The Midterm Equity Boost*," ftalphaville.ft.com, August 30, 2018) Even better, history suggests that 2019 should be positive as well. Thus, in each of the 18 years that followed midterm-election years between 1944 and 2016, the S&P 500 finished higher *every* time**.** Total returns ranged from a low of 1.38% in 2015 to a high of 37.43% in 1995, with an average increase of 19.13%. (Sources: Ibbotson & Associates; Morningstar)

The trade war between the U.S. and China is a more intractable problem, one whose obvious risks are getting harder for financial markets to ignore. Each side continues to impose hefty tariffs on the other's goods. Yet it hasn't stopped there. Tensions reached a fever pitch recently, after the White House called out the Chinese government for, among other things, its aggressive military buildup, stealing American technology, and meddling in America's domestic politics. For its part, China responded with angry charges of its own. A report by Bloomberg Businessweek that China had planted tiny spy chips into computer servers used by almost 30 large U.S companies, including Amazon and Apple, and by various agencies of the federal government only added fuel to the fire.[6] (Source: "*The Big Hack: How China Used a Tiny Chip to Infiltrate U.S. Companies*," Bloomberg Businessweek, October 4, 2018) Up to this point, the higher trade barriers have had relatively little impact on U.S. corporate profits. But that will almost certainly change. Not only do American tariffs weigh heavily on the Chinese economy, but China's other major trading partners, such as the European Union, also feel the ripple effects of a slowdown in demand. The weakness will in time reach the U.S.

In a worst-case scenario, the current hostilities morph into a much wider conflict between the world's two largest economies backed by its two strongest militaries. Any increase in sabre rattling by the two superpowers certainly won't sit well with investors. Yet for now, it still seems a fair bet that some sort of deal will be reached before the situation gets too far out of hand.[7]

In the longer term, the biggest threat to the bull market continues to be higher interest rates. Most equity bull runs breathe their last just ahead of a recession. Too much rate tightening invariably causes a sharp contraction in economic activity, soon followed by a similar slump in corporate earnings. No doubt the Fed will try to keep the current recovery intact for as long as possible. The problem is that monetary policy is a famously blunt instrument when it comes to preventing the economy from overheating. Because of the substantial time lag before rate hikes take effect, monetary policymakers

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[5] It has been suggested, on the other hand, that the stock market's atypical strength over the first three quarters of 2018 means this time could be an exception. (Source: "*The Stock Market Follows a Pattern in Election Years. Maybe Not This Time*," barrons.com, September 28, 2018)

[6] Both Apple and Amazon have since issued statements echoed by the U.S. Department of Homeland Security strongly denying the allegations.

[7] In recent weeks the U.S. has reached new trade agreements in principal with Mexico, Canada, and South Korea. Negotiations over a fresh trade accord with Japan are scheduled to begin shortly, and both sides have expressed optimism that a deal will be reached.

almost always err on the side of tightening too soon, rather than risk letting inflation get out of control. Since this tightening cycle began in late 2015, rates have risen eight times, including three times this year. Yet even as inflation remains relatively tame, there seems to be a consensus inside the Fed that much more tightening is needed, with one increase in December and at least three more in 2019 presently on the table. History suggests that eventually there will be one rate hike too many, though investors will usually receive some advance warning when it happens. An inverted yield curve, where yields on short-dated bonds exceed those on longer-dated bonds, has long been a reliable predictor of a slowdown. Right now, there not only hasn't been an inversion, but the yield curve has even steepened a bit recently. It suggests that with the economy humming along and profits growing nicely, the time to worry still appears to be some ways off.

There were more portfolio winners (20) than losers (7) in the third quarter. Leading the way was *Cognex* (ticker: CGNX) +25.13%, a mid-cap ($10.1 billion) designer and manufacturer of machine-vision systems, which we purchased in the second quarter. Other big gainers included: *HEICO Class A* (HEI.A) +23.87%, *Atrion* (ATRI) +15.92%, *Berkshire Hathaway Class B* (BRK.B) +14.71%, *Balchem* (BCPC) +14.21%, and *AAON* (AAON) +13.68%. We have owned shares of *Atrion*, a small-cap ($1.2 billion) supplier of medical devices and components to the healthcare industry, for more than eight years. It is a stock that no one follows on Wall Street. Headquartered in Dallas, Texas, the company focuses on developing proprietary fluid delivery, cardiovascular, and ophthalmology products for sale in niche markets that have significant potential for long-term growth. Since competition in these markets is limited, many of its products command significant market shares. Over the past 18 years, since current management took over, *Atrion* has increased sales, operating income, and earnings per share at annualized rates of 7%, 19%, and 22%, respectively. Unlevered returns on equity expanded from 5% to 20% over the same period. All this growth was achieved organically rather than by acquisitions. *Atrion* is debt-free and had cash and investments totaling almost $75 million at the end of 2017. Management has used the company's strong cash flows to fund research and development of new products and capital improvements in technology, facilities, and equipment. At the same time, excess cash has been consistently returned to shareholders through share repurchases and payment of quarterly and special dividends. Executive officers and directors own almost 22.5% of the outstanding shares, which provides them with a powerful incentive to run the company for the long term.

Our largest percentage decliners over the past three months were: *Mohawk Industries* (MHK) -18.16%, *NXP Semiconductors* (NXPI) -9.96%, *Copart* (CPRT) (a new purchase) -6.46%, *Cantel Medical (CMD)* -6.41%, and *Brown Forman Class B* (BF.B) -4.93%. Shares of *Cantel*, a mid-cap ($3.5 billion) supplier of infection prevention and control products and services to hospitals, medical and dental offices, and research laboratories, fell after the firm reported somewhat disappointing quarterly results. While earnings met Wall Street estimates, revenues came in a bit light and management lowered its revenue forecast for the rest of the year by the amount of the shortfall. Part of the problem was that investors' expectations were very high ahead of the report. *Cantel* has been a strong performer from the time we made our first investment more than four years ago. While the company is a relatively small player in the $50 billion global infection prevention market, it is a market leader in each of its three major product lines: Endoscopy, Water Purification and Filtration, and Healthcare Disposables. Almost 75% of annual sales are recurring, which lends a sizable degree of stability to the company's performance across the business cycle. Sales and earnings per share have compounded over the past decade at annual rates of 13% and 25%, respectively. At the same time *Cantel* remains on track to meet its five-year goal of doubling sales and profits by 2021. Insiders maintain a substantial ownership stake (12+%) in the company, which suggests that their financial interests are closely aligned with those of outside shareholders. For these and other reasons, we expect to hold *Cantel* shares for years to come.

When adding a new security to the Model Portfolio, we typically start with a partial position (i.e., a weighing between 1.50% and 2.50%). We try to avoid taking full positions too quickly, and typically increase the size of our stake on market pullbacks. As we see it, the more shares of a high-quality company that we can buy at lower prices, the better our odds of achieving a superior long-term return and the lower our risk of a poor outcome. In the third quarter, we purchased three new positions at prices that we believe are substantially below their long-term intrinsic values:

1) *Brown-Forman CL.B.* (BF.B), a large-cap ($24.1 billion) producer and marketer of premium spirits and wines worldwide. Founded in 1870, *Brown-Forman* is still led by members of the Brown family, who control most of the voting stock and have managed the business for the long-term. *Brown-Forman*'s top brands include Jack Daniel's Tennessee Whiskey, Finlandia vodka, Woodford Reserve bourbon, and el Jimador and Herradura tequilas. Jack Daniels Tennessee Whisky is the most valuable spirits trademark in the world. (Source: IWSR) The brand has seen strong growth in both the U.S. and abroad as American whiskies have become increasingly popular with consumers. In recent years, management has successfully introduced several extensions of the brand, most recently in the fast-growing flavored whisky category. Today *Brown-Forman*'s spirits and wines are sold in more than 135 countries, with more than 53% of sales now coming from outside the U.S. The premium spirits business is a particularly attractive area for long-term investment, thanks to its high margins, low capital requirements, strong free cash flow generation, and significant pricing power. In terms of profitability, if not in size, *Brown-Forman* consistently ranks at or near the top of the industry. Earnings and sales have grown at high-single-digit to low-double-digit annual rates over the past decade, with gross margins approaching 70% and returns on equity of almost 45%. During this time free cash flow exceeded $5 billion, with much of it returned to shareholders in the form of quarterly and special dividends and share repurchases. The company does face some headwinds from recently-imposed overseas tariffs and negative foreign currency exposure, but we believe they should ease over time. In any case, *Brown-Forman* seems uniquely well positioned to benefit from the secular increase in worldwide demand for whisky. With a volume market share of just 5%, there is plenty of room to grow.

2) *NXP Semiconductors, N.V.* (NXPI), a large-cap ($27 billion) global semiconductor company that is a leading supplier of high-performance mixed signal devices and microcontrollers used in a wide range of automotive, identification, wireless infrastructure, and computing applications. Headquartered in the Netherlands, the business operated as a subsidiary of Philips Electronics for half a century before being spun off in 2006 and later going public in 2010. Today the company's Automotive unit (48% of annual sales) is the largest supplier of connectivity chips and devices to the auto industry -- the fastest-growing end market for semiconductors -- with a market share greater than its second- and third-largest competitors combined. These connectivity chips occupy a central place in the manufacturing supply chain for, among other things, in-vehicle networking, and self-driving cars. *NXP*'s Secure Connected Devices unit (29% of sales) is another high-growth business, supplying a wide range of high-performance, low-power connectivity solutions such as embedded microcontrollers, short-range radio frequency and wireless connectivity, security, and sensors for smartphone communications, mobile transactions, and contactless mobile payments. The company also dominates the market (~62% share) for Near Field Communications and Bluetooth Low Energy semiconductors, which facilitate myriad types of wireless communication.

This is our second stint owning *NXP* shares. You may recall that we reaped a handsome gain of more than 60% the first time around, when chip giant Qualcomm offered a huge premium to acquire *NXP* in October 2016. The deal ultimately fell through in July of this year, an early casualty of the trade war, after Chinese antitrust regulators withheld approval in retaliation for the imposition of U.S. tariffs. As the agreement unraveled and the share price plunged, we took another look at the company to see if anything

had changed since we sold our original stake in February 2018. We concluded that ***NXP*** is as attractive now as it was when we first invested in the business three-and-a-half years ago, if not more so. At the time of this latest purchase, the stock was trading 35% below Qualcomm's $127.50 offer, which implies a sizable premium in any future takeover bid. Today the balance sheet is much stronger, as management used the company's prodigious cash flow during the 21-month bid period to pay down debt from a prior large acquisition. *NXP* also received a $2 billion breakup fee from Qualcomm and has initiated a quarterly dividend. This is in addition to a $5 billion buyback, enough to retire 15% of the total share count, that is expected to be completed by the end of 2018. Trading at less than 10 times 2019 consensus earnings estimates, the stock currently sells at a sizable discount to industry peers and at a huge discount to the market as a whole.

3) *Copart* (CPRT), a large-cap ($12.9 billion) provider of online auctions and vehicle remarketing services in the U.S (82% of 2017 sales) and internationally (primarily the U.K. and Canada). *Copart* acts as an intermediary, connecting sellers, which are primarily insurance companies, with buyers, such as used car dealers, exporters, dismantlers, rebuilders, and the general public. Most vehicles are either damaged and deemed a total loss by the insurer or recovered stolen vehicles on which an insurance settlement has already been made. All transactions are conducted using *Copart*'s virtual bidding Third Gen Internet auction-style sales platform. Sales are generated from fees paid by vehicle sellers and buyers, fees charged for appraisal, transportation, storage, and other ancillary services, and the proceeds from purchases and resales of vehicles for the company's own account. The number of totaled cars and trucks in the U.S. is huge. Most of these vehicles are at least 10 years old. But stricter safety standards, a shift to lighter-weight aluminum (instead of steel) body construction, and the increasing use of complex electronic systems and components, among other things, has led to a steady rise in total loss frequency among newer models as well. One of the company's strengths is its business model. The risk to *Copart* of high inventories, large accounts receivable, and loss from damaged goods is very low, because the company never acquires title to and disclaims any liability for the vast majority of vehicles that are sold through its marketplaces, and because buyers take possession of purchased vehicles only after making payment to the company in full.

There are certain economies of scale that come from operating more than 200 salvage yards worldwide. In its most recent fiscal year, almost half of the company's vehicles sold in the U.S. were to buyers outside the state in which the vehicles were located and roughly 20% were sold to international buyers. *Copart*'s online auction platform provides a fast, efficient, and cost-effective clearinghouse for transferring goods in an otherwise illiquid market. The platform also benefits from powerful network effects as it expands in size. Every increase in the number of vehicle sellers increases the value of the platform to potential buyers, and the addition of new buyers to the platform attracts more sellers, and so on. Barriers to entering this market are also quite high. It would require an enormous amount of time and money to replicate *Copart*'s state-of-the-art auction technology, long relationships with insurance company sellers, and proprietary list of registered buyers. Today the vehicle auction industry in the U.S. is effectively a duopoly, where *Copart* is the oldest, largest, and best-financed competitor. This helps explain the company's consistently-high level of profitability since its creation in 1982. Over the most recent five-year period, earnings and sales have compounded at annualized rates of 16.7% and 9.4%, respectively. The consensus forecast calls for 17.7% annual profit growth over the next five years. Officers and directors, who include the company's chairman and founder, maintain a sizable 16.4% ownership stake.

We typically choose to sell a holding in the Model Portfolio for one or more of the following reasons: 1) our original basis for investment has been undermined; 2) the security trades at such a large

premium to our estimate of intrinsic value that is likely to impair its expected long-term returns; 3) we have lost confidence in management's ability to manage the company successfully and/or its willingness to act in the best interest of outside minority shareholders; and 4) a superior investment alternative becomes available. In the third quarter, we sold the following positions:

Sales	**Avg. Realized Gain/Loss***	**Reason for Sale**
NewMarket Corp.	+24.8% Long Term	Replaced with a more attractive investment.
Royal Dutch Shell Class B	23.5% Long-term	Replaced with a more attractive investment.
AMERCO	21.7% Long-term	Replaced with a more attractive investment.
*Includes payment of any dividends over the holding period		

We also added to our existing position in *Comcast* (CMCSA) at a price that we believe is substantially below the company's intrinsic value.

We are grateful for the opportunity to manage your assets and will continue doing everything we can to merit your continued confidence and support. As always, if you have any questions about the information in this report and/or your investment portfolio, please do not hesitate to contact us at (610) 975-4300, or toll-free at (800) 975-4316.

Sincerely,

Gilpin W. Bartels
Senior Vice President
Pennsylvania Trust Multi-Cap Value Portfolio Manager

October 16, 2018

Addendum to Quarterly Portfolio Report

Cautionary Statement

This report has been prepared for the benefit of our clients and friends. It is issued without regard to the specific investment objectives, financial situation, or needs of any individual recipient. The information in this report regarding portfolio holdings and activity is based upon the Pennsylvania Trust Multi-Cap Value Model Portfolio. Such information is presented only to illustrate the application of our multi-cap value investment philosophy and/or the achievement of portfolio objectives and should not be considered recommendations by us. Not all portfolio holdings cited in this report may have been purchased for and/or sold from all client portfolios. Although every effort is made to achieve uniformity with the Model Portfolio, there are often differences in holdings between individual client accounts and the Model Portfolio. Such differences are the result of our strict adherence to our value-based investment philosophy (see below) and each client's specific financial requirements.

Our views and opinions regarding the investment prospects of particular portfolio holdings and our Model Portfolio as a whole are "forward-looking statements," which may or may not be accurate over the long term. You can identify forward-looking statements by words like "believe," "expect," "anticipate," or similar expressions when discussing prospects for particular Portfolio holdings and/or the Portfolio as a whole. You should not place undue reliance on forward-looking statements, which speak only as to the date of this report. We disclaim any obligation to update or alter any forward-looking statements, whether because of new information, future events, or otherwise. While we believe we have a reasonable basis for our views, and we have confidence in our opinions, actual results may differ materially from those we anticipate. Information contained in this report has been obtained from sources we believe to be reliable, but which cannot be guaranteed. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness, or correctness of the information and opinions expressed herein. Such information and opinions should not be considered a recommendation to purchase or sell a particular security. The opinions and other information provided are subject to change without notice.

Investment Philosophy and Achievement of Portfolio Objectives

Our primary investment objectives are to generate long-term positive returns and simultaneously manage portfolio risk. We select stocks for client portfolios one at a time using a bottom-up selection process. We invest in the common stocks of companies of all sizes that we believe are undervalued and have been mispriced by the market. Whenever the expected extra return that stocks should provide over lower-risk investments (the risk premium) does not, in our opinion, adequately compensate stock owners for bearing the extra risk, we may add a high-quality bond component to client portfolios. When there are few or no investments that meet our requirements, we may hold cash in anticipation of future opportunities.

Our investment philosophy is risk averse and highly dependent on determining an optimal price before investing. As the share price of a successful investment rises significantly, typically so does the risk assumed by new purchasers at the higher price. Whenever we believe that a holding in the Model Portfolio would not be attractive to us *as a new purchaser* at the prevailing price, we will not purchase it for an incoming new client. Whenever possible, we will attempt to purchase an omitted holding(s) at a more attractive price in the future. But we will not sacrifice our value-based investment discipline -- and thereby increase the portfolio risk to newer clients -- simply to achieve uniformity among client portfolios. We would never manage our personal and family portfolios that way.

Achievement of our investment objectives requires the ability to avoid material risk during certain market conditions. Since no consideration is given to benchmark allocations or weightings, client portfolios often do not closely track broad market movements over extended periods. We recommend that clients have a time horizon for their investments of at least three to five years.

Multi-Cap Value Composite Performance Summary

September 30, 2018

	Gross Composite Return (%)	Net Composite Return (%)	S&P 500 (%)*	DJIA (%)*	NASDAQ (%)*	Russell 3000 (%)*
Year to Date 09-30-2018	14.00	13.47	10.56	8.83	17.48	10.57
Year Ending 12-31-2017	14.18	13.31	21.83	28.11	29.64	21.13
Year Ending 12-31-2016	-1.76	-2.55	11.96	16.50	8.87	12.74
Year Ending 12-31-2015	4.53	3.76	1.38	0.21	6.96	0.48
Year Ending 12-31-2014	8.15	7.35	13.65	10.02	14.80	12.55
Year Ending 12-31-2013	36.39	35.47	32.36	29.65	40.15	33.55
Year Ending 12-31-2012	7.35	6.55	15.98	10.23	17.73	16.42
Year Ending 12-31-2011	-1.60	-2.44	2.09	8.34	-0.79	1.02
Year Ending 12-31-2010	17.15	16.19	15.06	14.06	18.14	16.92
Year Ending 12-31-2009	24.20	23.24	26.45	22.70	45.34	28.35
Year Ending 12-31-2008	-24.23	-24.81	-36.99	-31.92	-39.98	-37.31
Year Ending 12-31-2007	9.96	9.12	5.56	8.87	10.67	5.15
Year Ending 12-31-2006	12.87	12.00	15.77	19.03	10.87	15.71
Year Ending 12-31-2005	7.02	6.04	4.91	1.72	2.11	6.10
06-01-2004 through 12-31-2004	16.36	15.84	9.25	7.13	11.01	10.21

Annualized Returns

As of September 30, 2018	Gross Composite Return (%)	Net Composite Return (%)	S&P 500 (%)*	DJIA (%)*	NASDAQ (%)*	Russell 3000 (%)*
1 Year	16.00	15.26	17.91	20.76	25.17	17.58
2 Year	14.43	13.61	18.26	23.09	24.42	18.14
3 Year	10.43	9.61	17.31	20.49	21.70	17.07
4 Year	9.53	8.72	12.55	14.39	17.01	12.41
5 Year	9.77	8.96	13.95	14.57	17.72	13.46
6 Year	12.18	11.37	14.83	14.74	18.53	14.78
7 Year	13.36	12.52	16.91	16.35	20.19	16.86
8 Year	10.89	10.05	14.81	14.71	17.89	14.69
9 Year	10.56	9.72	14.29	14.64	17.31	14.27
10 Year	9.92	9.08	11.97	12.22	15.79	12.01
Since Inception†	9.24	8.40	9.13	9.63	11.39	9.33

Composite Accounts and Market Value

	Number of Accounts	Market Value ($mil)	Total Firm Assets ($mil)**	% of Firm Assets**	Composite Dispersion (%)
September 30, 2018	58	120.6	3,349.4	3.6	0.61
December 31, 2017	63	112.0	3,107.8	3.6	0.60
December 31, 2016	82	123.4	2,712.7	4.5	0.45
December 31, 2015	82	124.1	2,625.5	4.7	0.39
December 31, 2014	91	143.8	2,324.1	6.2	0.57
December 31, 2013	79	129.1	2,069.3	6.2	1.10
December 31, 2012	81	98.9	1,708.5	5.8	0.54
December 31, 2011	105	140.6	176.0	79.9	0.35
December 31, 2010	94	120.5	153.1	78.7	0.72
December 31, 2009	72	90.9	129.5	70.2	0.96
December 31, 2008	45	49.1	103.6	47.4	1.22
December 31, 2007	49	64.4	95.8	67.2	0.60
December 31, 2006	41	42.1	91.8	45.9	0.71
December 31, 2005	29	29.0	79.4	36.5	0.72
December 31, 2004	21	9.0	41.4	21.7	N/A

*The index returns are derived from published sources and have not been examined.
**For periods ending on or before 12-31-2011, total firm assets are those of Spartan Capital Management, LLC.
N/A - Data is not applicable for the time period.
† Inception date: 05/31/2004
See accompanying Composite Performance Disclosure

Composite Performance Disclosure

Organization

The Pennsylvania Trust Company (the "Firm") provides investment management and trust administration, tax, estate, and related account services to high net worth individuals and institutions. The Firm provides a broad range of investment services for clients through separately managed portfolios representing a variety of investment styles. Certain of the Firm's principals are investors along with the Firm's clients.

On February 1, 2012, Spartan Capital Management, LLC joined the Firm. Substantially all of the investment decision makers transferred from Spartan Capital Management, LLC to the Firm and the decision making process remains unchanged. As a result, the composite performance record included herein from June 1, 2004 through January 31, 2012 is that of Spartan Capital Management, LLC and has been linked to the performance included herein.

Composite Description

The Multi-Cap Value Composite (the "Composite") includes all discretionary, fee paying portfolios invested in the Firm's Multi-Cap Value Strategy (the "Strategy").The Strategy employs a value-based approach that incorporates principles of behavioral finance to build a portfolio with relatively low correlation to market indices. The Strategy seeks superior long-term capital growth for its clients with below average market risk. The Strategy is typically comprised of equity securities of companies of all sizes that the firm believes are undervalued and mispriced by the market; portfolios generally hold between 20 and 35 securities. From May 31, 2004 through August 31, 2004 all discretionary portfolios were included in the composite after the first full month of being invested. From September 1, 2004 through December 31, 2015 all discretionary portfolios were included in the composite after the first full quarter of being invested through the last full quarter prior to termination. Effective January 1, 2016, portfolios are included in the composite beginning with the first full month of performance through the end of the last full calendar month prior to termination. Portfolios that have a significant cash flow, defined as a contribution or withdrawal of 20% or greater of the beginning market value of that month(effective January 1, 2016)/quarter (prior to January 1, 2016), are excluded from the composite for the month (effective January 1, 2016)/quarter (prior to January 1, 2016) in which the flow occurs.

The indices are presented for comparison purposes only; one cannot invest directly in an index. The indices are provided to represent the investment environment existing during the time periods presented. The Standard & Poor's 500 Index (S&P500) is a market value weighted index, which broadly measures the performance of U.S. large capitalization stocks. The Russell 3000 Index measures the performance of the largest 3,000 U.S. companies, representing approximately 98% of the investable U.S. Equity market. The Dow Jones Industrial Average (DJIA) is a price-weighted average of 30 blue-chip stocks that are generally the leaders in their industry. The Nasdaq Composite Index is a broad-based capitalization-weighted index of stocks listed on Nasdaq. Performance results for indices are reported on a gross basis and do not assume any advisory, brokerage, or custody fees.

Performance Calculations

Performance results are calculated on a total return basis and include all realized and unrealized capital gains and losses as well as dividends and interest. Portfolio performance calculations are time-weighted to account for periodic contributions and withdrawals. The Composite returns consist of size-weighted portfolio returns using beginning of period values to weight portfolio returns. Gross of fees returns reflect the deduction of transaction costs. Net of fees returns reflect the deduction of actual transaction costs, custody and investment management fees. Portfolios in the Composite presented record transactions based on trade dates. All of the Composite's valuations, returns, and disclosures are computed and stated in U.S. dollars.

Prior to July 1, 2012, monthly returns are calculated using the Modified Dietz Method assuming cash flows occurred at the end of the day. Monthly linking of interim performance results is used to calculate annual returns. Portfolios are valued on a monthly basis or when a large flow occurs. The Firm defines "large flows" was those over 10% of the beginning market value for that month. The Firm calculates performance for interim sub-periods between all "large flows" using the Modified Dietz Method and geometrically links the performance to calculate periodic returns. The Modified Dietz Method is as follows:

$$r_t^{MD} = \frac{V_t^E - V_t^B - \sum_{i=1}^{I} CF_{i,t}}{V_t^B + \sum_{i=1}^{I}(CF_{i,t} \times w_{i,t})}$$

where

r_t^{MD} = the Modified Dietz return for the portfolio for period t
V_t^E = the ending value of the portfolio for period t
V_t^B = the beginning value of the portfolio for period t
i = the number of external cash flows $(1, 2, 3 \dots I)$ in period t
$CF_{i,t}$ = the value of cash flow i in period t
$w_{i,t}$ = the weight of cash flow i in period t, as calculated according to the following formula:

$$w_{i,t} = \frac{D_t - D_{i,t}}{D_t}$$

where

$w_{i,t}$ = the weight of cash flow i in period t
D_t = the total number of calendar days in period t
$D_{i,t}$ = the number of calendar days from the beginning of period t to cash flow i

Beginning July 1, 2012, portfolios are valued and returns are calculated daily. The daily calculation utilizes the formula described above. For the period July 1, 2012 to July 31, 2015, all flows are assumed to occur at the end of the day where the weight of the cash flow is zero. Beginning August 1, 2015, all cash flows are assumed to occur at the beginning of the day where the weight of the cash flow is one. In instances where securities are transferred in or out of an account, mid-day weighting is utilized. For these transactions, the weight of this flow is equal to 0.5. The daily returns are geometrically linked to generate monthly performance. Monthly linking of interim performance results is used to calculate annual returns.

Investment Management Fees

The fee schedule is as follows as of June 30, 2018: 1.25% on the first $1million; 1.00% the next $1million; 0.75% on the next $3million; 0.50% on the balance.
The minimum annual fee is $12,500.

Composite Minimum

Effective January 1, 2005 a Composite minimum was established at $500,000. Accounts within the Composite that decrease in value below $400,000 at the beginning of a calendar month (effective January 1, 2016)/quarter (prior to January 1, 2016) are removed from the Composite for the calendar month(effective January 1, 2016)/quarter (prior to January 1, 2016) in which they are below the minimum. Accounts are added back to the Composite once they have reached the composite minimum as of the beginning of a calendar month (effective January 1, 2016)/quarter (prior to January 1, 2016).

Composite Dispersion

Composite dispersion measures the consistency of the Composite performance results with respect to the individual portfolio returns within the Composite. Composite dispersion is calculated using the asset-weighted standard deviation method for all portfolios that were included in the Composite for the entire period.

Examination & Future Performance

The Multi- Cap Value Composite has been independently examined for the periods July 1, 2011 through June 30, 2018. The historical rates of return should not be relied on as indicative of future results. Investors should be aware that other performance calculation methods may produce different results and that comparison of investment results should consider qualitative circumstances and should be made only for portfolios with generally similar investment objectives.

This material is for illustrative/informational purposes only. This material is not intended to constitute legal, tax or investment advice. The information contained herein may not be applicable to or appropriate for every investor and should only be used after consultation with professionals who have re-viewed your specific situation. Views and security holdings are subject to change at any time based on market or other conditions. Past performance is no guarantee of future results. Indexes shown are for informational purposes only. It is not possible to invest directly in an index. This material shall not be redistributed without the express permission of The Pennsylvania Trust Company. The information is intended only to provide general information and is not, nor may it be considered legal advice or tax advice and cannot be used by any taxpayer for the purpose of avoiding penalties.