MUHLENKAMPMemorandum

Issue 142 Published Second Quarter

April 2022

QUARTERLY LETTER

By Jeff Muhlenkamp, Portfolio Manager and Ron Muhlenkamp, Founder

"The times they are a-changin'."1

Inflation appears to be here to stay. The US inflation rate in February (latest data available) as measured by year-over-year change in the Consumer Price Index (CPI) was 7.9% (up from 7% the end of December). Inflation measured this way has been above the Federal Reserve's 2% target since March 2021. Responding to higher inflation the Federal Reserve flipped from encouraging inflation to discouraging inflation. Specifically, they raised the Federal Funds rate .25% in March and are expected to continue increasing the Federal Funds rate for the next 18 months or so. They have also ended their bond purchasing program and have begun discussing reducing their holdings of bonds.

Thus, interest rates are rising. The yield on the 30-year Treasury bond on 28 March was 2.56% (up from 2% at the end of December) and the average rate on new 30-year fixed rate mortgages for a conforming borrower was 4.56% (up from 3.2% in December). You'll notice that both the 30-year Treasury yield and the mortgage rate are significantly below the rate of inflation - so both the Federal Government and homebuyers can borrow today and repay the loan with dollars whose value has declined at a faster rate than payments have accrued. This arrangement, where inflation-adjusted borrowing rates are negative, rewards the borrower at the expense of the lender. We discussed this in greater depth in Memo 140 which we published in October 2021.

As you probably already know, bond yields move in the opposite direction of bond prices. Thus, rising bond yields means falling bond prices. If you held a Treasury Bond that matures in 30 years on 31 December 2021 you've seen its price fall by roughly 10% in three months. The S&P 500 Total Return

¹ Bob Dylan, 1964



Index has fallen 4.3% over the same time frame. Reflect on that for a moment. Over the last three months "safe" treasuries have declined twice as much as "risky" stocks. Our fear is that the rules of thumb developed by investors over the last 30 years, a period of declining interest rates, will continue to be applied by investors going forward EVEN THOUGH THE CONDITIONS THAT MADE THEM TRUE NO LONGER EXIST. Bonds are no longer "safe." A 60% bond 40% stock portfolio is no longer "conservative." We can't say it any plainer than that.

We expect inflation will impact stocks as well. Inflation will obviously raise the input costs for businesses, many of which will struggle to pass those higher costs along to their customers – reducing their profitability. For those companies that rely on external capital for their growth, or even continued operations, they will find the cost of capital increasing and perhaps becoming less available. In general, we expect profitability to decline and price-to-earnings ratios (P/E ratio) to contract.

This dynamic appears to be unfolding before our eyes. Inflation and rising interest rates have proved to be the pin that popped the bubble in growth stocks. Starting last summer, most of the very popular growth stocks have experienced sharp price declines of up to 80 to 90%. While some of those stocks have reached reasonable valuations many others remain quite expensive. We are spending a fair bit of time looking for investments in this subset of the market but so far, we've kept our wallet in our pocket. We think there is more pain to come for these stocks.

The reappearance of US inflation is not the only potential seismic shift in the investing environment. I think four other shifts may prove to be significant going forward:

First, companies are shifting from optimizing efficiency in their supply chains to improving the reliability of their supply chains. Twenty-five years ago, companies built their new plant in China to take advantage of cheaper labor. Twelve years ago, companies built





their new plant in China because that's where the incremental demand for their products was coming from. Tomorrow companies will build a new plant where they can be more confident in its ability to continue to function under adverse circumstances—reducing shipping links and emphasizing reliable political jurisdictions. The change won't be dramatic, but over time it will significantly restructure how and where goods are produced. The shift in this direction started with the Trump tariffs, was turbocharged by COVID-19 related lockdowns, and has been re-emphasized by the Russia-Ukraine War. As an example, I just read an article today which discussed Chinese suppliers to American companies looking to build plants in Mexico at the request of their customers. Another recent example is Intel's decision to build new computer chip plants in Ohio instead of relying on manufacturers in Taiwan for their supply. So, to a small degree we are already seeing this occur. We believe this represents the early days of a new trend.

Second, China is in the beginning stages of dealing with its over-reliance on property development for growth. Several large property developers are in the slow-motion process of failing; property prices are falling, and the government is doing its best to manage the fallout. So far, things are under control. Things may, or may not, get out of hand, but the growth mechanism China has relied on for 30 years is now finished and a new one must be found. If history is any guide, it may take a while for a new source of demand to supplant the old one. Again, this isn't something we are predicting, it is something we are observing: and we think it will turn out to be meaningful. As an aside, our conclusion a year ago that Chinese stocks had become uninvestable appears to have been timely.

Third, the international role of the dollar as the trading currency of choice and the role of US Treasuries as a reserve for foreign central

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U.S. WORKERS ARE OWNERS: THEY JUST DON'T REALIZE IT

By Ron Muhlenkamp, Founder—This essay is an update to "Worker Capitalism Triumphs" written by Ron in Muhlenkamp Memorandum, Issue 2, October 1987.

The 100 Largest U.S. Retirement Funds

The data in the accompanying table ranks the top 100 U.S. privately managed retirement funds and their sponsors, along with the assets (in millions) in the fund. We have included a column labeled Market Cap (in billions) that shows the market value of the respective corporations for the corporate sponsored funds. When you look at the table, pay attention to the company market values with the asterisks in the last column. These are the companies whose (funded) pension plans are greater than the market values of the companies themselves.

At yearend 2021, aggregate privately managed pension assets worldwide were over \$22 trillion of which \$14 trillion were U.S. based.

The asset allocations within corporate and public pension plans are dictated by their portfolio goals and restrictions, thus the holdings are diverse. Typical asset allocation includes cash and cash equivalents, bonds, equities, real estate, alternative investments, etc. As owners of pension plans, workers indirectly hold shares of equities and therefore are beneficiaries of the activity on Wall Street.

Workers Are Owners

Today, through pension and retirement plans, U.S. workers, as a whole, are the owners of a major portion of the business assets of the United States. The 100 largest U.S. retirement funds have assets exceeding \$8.2 trillion. Of these 100 retirement funds, only 40 are sponsored by corporations, most of the others are plans for public sector employees.

The point is: workers, as a whole, own a huge chunk of America's capital assets, yet many seem to be unaware of it. A person retiring with a \$30,000 per-year pension and a life expectancy of 20 to 25 years may think he's poor, but if he receives the same amount in a lump sum, may consider himself rich. Same data—different

The 100 Largest U.S. Retirement Funds

Fund deral Retirement Thrift lifornia Public Employees lifornia State Teachers	Total Assets in \$ Millions* \$774,176	DB Assets*	DC Assets*	Market Cap	***
lifornia Public Employees lifornia State Teachers		Assets*	\ \Ccotc*		***
lifornia Public Employees lifornia State Teachers				In \$ Billions**	
lifornia State Teachers	\$496,820	\$494,539	\$774,176 \$2,281		
	\$313,940	\$312,150	\$1,790		
w York State Common	\$267,756	\$267,756	\$1,750		
ew York City Retirement	\$266,702	\$266,702			
orida State Board	\$213,792	\$199,041	\$14,751		
xas Teachers	\$196,727	\$196,727	41.,751		
ashington State Board	\$161,517	\$134,977	\$26,540		
sconsin Investment Board	\$147,915	\$140,923	\$6,992		
eing	\$147,210	\$72,466	\$74,744	\$104	***
ew York State Teachers	\$144,396	\$144,396			
orth Carolina	\$137,116	\$121,336	\$15,780		
lifornia University	\$125,333	\$90,848	\$34,485		
nio Public Employees	\$121,574	\$119,190	\$2,384		
*&T	\$119,539	\$58,186	\$61,353	\$166	
M	\$115,427	\$51,961	\$63,466	\$113	***
ginia Retirement	\$110,014	\$103,710	\$6,304	=	
ytheon Technologies	\$108,864	\$55,029	\$53,835	\$147	-
chigan Retirement	\$107,959	\$95,401	\$12,558		<u> </u>
ew Jersey	\$104,452	\$98,732	\$5,720	+	
nnesota State Board	\$102,914	\$89,948	\$12,966		<u> </u>
iser eorgia Teachers	\$101,035 \$100,922	\$65,479 \$100,922	\$35,556	+	\vdash
egon Public Employees	\$100,922	\$100,922	\$3,209		
assachusetts PRIM	\$98,458	\$98,458	\$3,209		
eneral Motors	\$96,077	\$64,429	\$31,648	\$61	***
nio State Teachers	\$95,134	\$92,703	\$2,431	Ψ01	
eneral Electric	\$90,464	\$61,316	\$29,148	\$100	
nited Parcel Service	\$86,833	\$52,952	\$33,881	\$179	
nited Nations Joint Staff	\$86,196	\$86,196	455,001	4173	
ckheed Martin	\$85,742	\$36,167	\$49,575	\$122	
nnessee Consolidated	\$79,002	\$67,395	\$11,607	Ì	
nk of America	\$76,344	\$21,716	\$54,628	\$330	
rd Motor	\$72,790	\$48,963	\$23,827	\$65	***
s Angeles County Employees	\$72,708	\$72,708			
orthrop Grumman	\$71,975	\$36,148	\$35,827	\$70	***
nnsylvania School Employees	\$70,358	\$70,294	\$64		
lorado Employees	\$68,571	\$62,472	\$6,099		
aryland State Retirement	\$68,455	\$68,455			
ells Fargo	\$66,049	\$13,055	\$52,994	\$187	
rizon	\$64,099	\$21,293	\$42,806	\$222	
nois Teachers	\$64,026	\$64,026			_
. Morgan Chase	\$62,753	\$22,308	\$40,445	\$394	
dEx	\$60,725	\$29,785	\$30,940	\$57	***
evada Public Employees	\$58,789	\$58,789			_
ssouri Schools & Education	\$57,038	\$57,038			<u> </u>
nois Municipal	\$54,874 \$54,176	\$54,874 \$54,176		+	<u> </u>
amsters, Western Conference ah State Retirement	\$54,176 \$51,489	\$54,176 \$43,034	\$8,455	+	
an state ketirement inson & Johnson	\$51,489	\$43,034	\$8,455 \$24,441	\$445	\vdash
				\$443	
ate Farm izona State Retirement	\$50,741 \$50,076	\$33,954 \$50,076	\$16,787	+	
uth Carolina Public Employees	\$49,145	\$39,723	\$9,422		
abama Retirement	\$48,572	\$45,888	\$2,684		
elta Air Lines	\$47,636	\$19,143	\$28,493	\$20	***
diana Public Retirement	\$46,310	\$39,172	\$7,138	1.20	
okia USA	\$43,828	\$33,744	\$10,084	\$27	***
wa Public Employees	\$43,367	\$43,367	,		
nnsylvania Employees	\$43,128	\$38,440	\$4,688		
aska Retirement	\$42,582	\$33,591	\$8,991		
nnecticut Retirement	\$42,505	\$42,505			
xas County & District	\$41,916	\$41,916			
crosoft	\$41,706		\$41,706	\$2,162	
n Francisco City & County	\$40,873	\$36,059	\$4,814		
xas Employees	\$39,628	\$34,910	\$4,718		
	\$39,505	\$14,308	\$25,197	\$9	***
wa nr asl onr xa cr	Public Employees asylvania Employees aca Retirement acticut Retirement s c County & District assoft arrancisco City & County s Employees rican Airlines	Public Employees \$43,367 ssylvania Employees \$43,128 ka Retirement \$42,582 hecticut Retirement \$42,505 s County & District \$41,916 posoft \$41,706 Francisco City & County \$40,873 s Employees \$39,628 rican Airlines \$39,505	Public Employees \$43,367 \$43,367 ssylvania Employees \$43,128 \$38,440 ka Retirement \$42,582 \$33,591 necticut Retirement \$42,505 \$42,505 s County & District \$41,916 \$41,916 posoft \$41,706 \$41,706 grancisco City & County \$40,873 \$36,059 s Employees \$39,628 \$34,910 rican Airlines \$39,505 \$14,308	Public Employees \$43,367 \$43,367 ssylvania Employees \$43,128 \$38,440 \$4,688 ka Retirement \$42,582 \$33,591 \$8,991 necticut Retirement \$42,505 \$42,505 \$ s County & District \$41,916 \$41,916 \$41,916 osoft \$41,706 \$41,706 \$41,706 Francisco City & County \$40,873 \$36,059 \$4,814 s Employees \$39,628 \$34,910 \$4,718	Public Employees \$43,367 \$43,367 ssylvania Employees \$43,128 \$38,440 \$4,688 ka Retirement \$42,582 \$33,591 \$8,991 secticut Retirement \$42,505 \$42,505 \$ s County & District \$41,916 \$41,916 \$41,706 posoft \$41,706 \$41,706 \$2,162 grancisco City & County \$40,873 \$36,059 \$4,814 s Employees \$39,628 \$34,910 \$4,718 rican Airlines \$39,505 \$14,308 \$25,197 \$9

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2021	Fund	Total Assets	DB	DC	Market Cap	***
Rank	Funa	in \$ Millions*	Assets*	Assets*	In \$ Billions**	
68	Pfizer	\$38,869	\$17,960	\$20,909	\$274	
69	Honeywell	\$38,650	\$21,793	\$16,857	\$127	
70	Mississippi Employees	\$38,242	\$35,949	\$2,293		
71	Walmart	\$38,204		\$38,204	\$386	
72	Exxon Mobil	\$36,814	\$17,523	\$19,291	\$350	
73	Texas Municipal Retirement	\$36,087	\$36,087			
74	3M	\$35,035	\$20,194	\$14,841	\$83	
75	General Dynamics	\$34,915	\$14,119	\$20,796	\$65	
76	New York State Deferred Comp.	\$34,172	·	\$34,172		
77	CVS Health	\$33,751	\$6,663	\$27,088	\$137	
78	Walt Disney	\$33,599	\$17,786	\$15,813	\$243	
79	Caterpillar	\$32,682	\$17,087	\$15,595	\$112	
80	Citigroup	\$32,280	\$13,249	\$19,031	\$110	
81	Exelon	\$31,803	\$20,764	\$11,039	\$43	
82	United Airlines Holdings	\$31,395	\$4,245	\$27,150	\$11	***
83	Shell Oil	\$31,311	\$18,905	\$12,406		
84	Los Angeles Fire & Police	\$31,095	\$31,095			
85	PepsiCo	\$30,886	\$17,294	\$13,592	\$217	
86	Chevron	\$30,608	\$11,674	\$18,934	\$323	
87	National Electric	\$30,450	\$17,912	\$12,538		
88	World Bank	\$30,359	\$30,359			
89	Illinois State Board	\$30,308	\$24,797	\$5,511		
90	PG&E	\$29,733	\$21,639	\$8,094	\$22	***
91	FCA US	\$29,623	\$20,006	\$9,617		
92	Louisiana Teachers	\$29,449	\$26,489	\$2,960		
93	Intel	\$29,174	\$1,584	\$27,590	\$190	
94	Costco Wholesale	\$29,000		\$29,000	\$238	
95	Dow	\$28,784	\$16,273	\$12,511	\$43	
96	New York City Deferred Comp.	\$28,580	·	\$28,580		
97	National Railroad	\$28,411	\$28,400	\$11		
98	Deloitte	\$27,977	\$8,535	\$19,442		
99	Illinois State Universities	\$27,538	\$23,785	\$3,753		
100	Ascension	\$27,384	\$9,664	\$17,720		
	TOTAL	\$8,258,979	\$5,888,412	\$2,370,567		

^{*} Retirement fund data (total assets, DB assets, & DC assets) as of 9/30/2021. Defined benefit (DB) and defined contribution (DC) breakouts were not available or applicable to all funds.

 $Source: Reprinted \ with \ permission \ from \ Pensions \ \& \ Investments \ (Crain \ Communications, Inc.) \ www. \ pionline.com$

- ** Company market capitalization as of March 2022. Source: Bloomberg.
- *** Denotes pension plan assets are greater than the market value of the company.

perceptions. (The present value of \$30,000 per year for 25 years using a discount rate of 2% is \$597,000.)

We always discuss participation in the economy as though consumers, producers (workers), and owners are separate individuals. We are all consumers. One third of us are workers. Through our retirement plans, most workers are also significant owners of industry, they just don't realize it yet.

Note that public sector plans are heavily defined benefit (DB), while corporate plans have gradually moved to defined contribution (DC) plans. This is in response to the stagflation of the 1970s. Inflation drove retirees to demand higher pension benefits at the same time that stagflation and recession drove corporate profits down, driving many companies towards bankruptcy.

Many public sector plans are currently underfunded by 20-30% or more. A repeat of stagflation would drive them into further underfunding, necessitating benefit reduction and/or tax increases.

The comments made in this article are opinions and are not intended to be investment advice or a forecast of future returns.

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banks are being challenged. Saudi Arabia is considering allowing China to purchase oil with Renminbi (China's currency) potentially reducing the demand for dollars as a trading currency. Nearly simultaneously central banks holdings of US treasuries as a reserve has just gotten a lot less attractive in the wake of the US freezing Russia's dollar reserves after the invasion of the Ukraine. What good are savings you can't access when the emergency comes? We expect central banks will think very hard about the assets they hold as reserves and may shift their holdings. Equally interesting were two decisions by Russia last week. First they are now requiring that "unfriendly countries (meaning the European Union) pay for natural gas shipments in Rubles (the Russian currency) not Euro (the European Union's currency). Second their central bank has declared they will buy gold at a fixed Ruble

rate—which looks like a gold peg to me. The Euro used to be the "hard currency" and the Ruble was only good inside of Russia. Are we seeing that reverse before our eyes? These developments raise many, many questions in our minds. We have no conclusions yet, but it certainly seems as if some long-standing assumptions are getting challenged when it comes to the international role of currencies.

Fourth. Western Europe is now dealing with the consequences of past energy and defense policies. An emphasis on solar and wind energy created a fragile power grid that fell short in the winter of '21-'22 when the wind was lighter than normal and natural gas prices skyrocketed. The Russian invasion of the Ukraine brought home the reality that European reliance on Russian natural gas and the poor state of Western European militaries severely constrained the ability of European governments to shape their response to Russian aggression. Now Western Europe is quickly declaring natural

gas and nuclear power "green" energy and scrambling to diversify away from Russian sources while simultaneously pledging to increase defense spending and revamp their armed forces. Quite the turn of events in a very short time.

We think these changes are large and will likely be long lasting. In many respects the near future will not be like the immediate past and it will be important to shift investing strategies to adapt to the changes. In short, we think the investing environment is changing.

How is this thinking reflected in our process and portfolios? Most obviously we continue to think bonds on anything but a very short-term basis are unlikely to grow your wealth. Bonds went from being potential losers to being actual losers, and we think that trend continues until the government gets serious about fighting inflation – which they haven't done yet. (It may take an election cycle or two. We probably have to hire politicians continued on page 4



MUHLENKAMPMemorandum

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who campaigned on the promise to fight inflation in order to get it done). We've also changed the assumed inflation in Ron's valuation model which we use to evaluate companies. In general, this gives us a lower valuation for companies and means fewer stocks look attractive when we compare our estimate of their value to their current price. Last summer we observed that our tech holdings had both gotten above our assessment of fair value and were losing their upward momentum—so we reduced our holdings in those companies. We also observed that energy companies had gotten very disciplined about spending money on new sources of supply for a variety of reasons. This meant the supply of oil and gas is unlikely to grow even as demand returns after the COVID induced restrictions end. This seemed an attractive opportunity and we invested in a couple of energy companies. This shift in our portfolio over the last six to nine months has worked out pretty well so far.

As always, if you have questions, give us a call. We'd love to hear from you. Λ

CPI – The Consumer Price Index ("CPI") measures the average change in prices over time that consumers pay for a basket of goods and services, commonly known as inflation. One cannot invest directly in an index.

S&P 500® **Index** – The S&P 500® Index is a widely recognized, unmanaged index of common stock prices. The S&P 500® Index is weighted by market value and its performance is thought to be representative of the stock market as a whole. One cannot invest directly in an index.

The comments made in this article are opinions and are not intended to be investment advice or a forecast of future returns.



We are pleased to announce that Muhlenkamp & Company's All-Cap Value Strategy won the 2022 SMArtX Virtual Award for Balanced Strategy of the Year.

SMArtX presented their 2022 Virtual Awards for eleven different categories. Winners

were selected by first categorizing all strategies widely available on the SMArtX platform into award categories. Each strategy was then ranked by three metrics: 2021 performance, 3-year annualized return, and the 3-year annualized Sharpe Ratio. Each place was given a weighted score and then a final score was tallied for the strategies in each category. The firm with the highest score won the honor of that category's Strategy of the Year. Visit the SMArtX Advisory Solutions website for further details.

Jeff Muhlenkamp, Portfolio Manager, provides a model investment portfolio to SMArtX. Muhlenkamp & Company, Inc. is compensated by SMArtX when clients invest using the Muhlenkamp & Company, Inc. All-Cap Value Strategy. Investing through the SMArtX TAMP model involves risk. Principal loss is possible. Past performance does not guarantee future results. This information does not constitute an offer to sell or a solicitation to buy.

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ALL-CAP VALUE

For the period ended 3/31/2022

Muhlenkamp & Company's All-Cap Value SMA (Separately Managed Account) is designed for investors' accounts over \$100,000. We employ full discretion, applying fundamental analysis.

INVESTMENT OBJECTIVE

We seek to maximize total after-tax return through capital appreciation, and income from dividends and interest, consistent with reasonable risk.

INVESTMENT STRATEGY

We invest in undervalued assets wherever they may be found. Typically, this results in holding a portfolio of companies we believe are materially undervalued by the market. Bonds may be included in the portfolio if they are a good investment.

INVESTMENT PROCESS

We start with a bottom-up scan of domestic companies, typically looking at most U.S. companies at least four times per year. We add to that an understanding of the sector dynamics in which companies are operating, an assessment of the business cycle, and a review of macroeconomic conditions.

Our primary screening metric is return on shareholder equity (ROE). We are looking for companies with stable returns that can be purchased cheaply, or for companies with improving returns that have not yet been recognized by the market.

We don't believe that a holding period of "forever" is appropriate in all cases, but are comfortable holding companies as long as they continue to meet expectations.

INVESTMENT RISK

We define investment risk as the probability of losing purchasing power over long periods of time, which is quite different from Wall Street's definition of price volatility in very short periods of time. Taxes, inflation, and spending will ALL impact the purchasing power of your assets.



ALL-CAP VALUE COMPOSITE PERFORMANCE (NET OF FEES)

			Annualized				
	Year to Date	One Year	Past 3 Years	Past 5 Years	Past 10 Years	Past 15 Years	
Return	4.58%	19.19%	17.12%	10.45%	8.77%	5.76%	
S&P 500 Total Return*	-4.60%	15.65%	18.92%	15.99%	14.64%	11.45%	
Consumer Price Index**	* 1.76%	7.87%	3.92%	3.10%	2.23%	2.24%	

- * The S&P 500 is a widely recognized, unmanaged index of common stock prices. The figures for the S&P 500 reflect all dividends reinvested but do not reflect any deductions for fees, expenses, or taxes. One cannot invest directly in an index.
- ** Consumer Price Index (CPI) As of February 2022 U.S. CPI Urban Consumers NSA (Non-Seasonally Adjusted), Index. The Consumer Price Index tracks the prices paid by urban consumers for goods and services and is generally accepted as a measure of price inflation. Price inflation affects consumers' purchasing power.

Consolidated performance with dividends and other earnings reinvested. Performance figures reflect the deduction of broker commission expenses and the deduction of investment advisory fees. Such fees are described in Part II of the adviser's Form ADV. The advisory fees and any other expenses incurred in the management of the investment advisory account will reduce the client's return. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of the above accounts. A list of all security recommendations made within the past twelve months is available upon request.

TOP TWENTY HOLDINGS

		% of Net
Company	Industry	Asset
EQT Corporation	Oil, Gas, & Consumable Fuels	4.47%
McKesson Corporation	Health Care Providers & Services	4.17%
Occidental Petroleum	Oil, Gas, & Consumable Fuels	3.89%
Dow Inc	Chemicals	3.67%
Schlumberger NV	Energy Equipment & Services	3.61%
UnitedHealth Group Inc	Health Care Providers & Services	3.35%
Kirby Corp	Marine	3.28%
Berkshire Hathaway Inc Class B	Diversified Financial Services	3.27%
Mastec Inc	Construction & Engineering	3.15%
CVS Health Corp	Health Care Providers & Services	3.04%
Tenneco Inc	Auto Components	3.02%
Broadcom Inc	Semiconductors & Semiconductor Equipment	2.93%
Apple Inc	Technology Hardware, Storage & Peripherals	2.83%
ALPS Alerian MLP ETF	Exhange Traded Funds	2.81%
Microsoft Corp	Software	2.77%
Bristol-Myers Squibb Company	Pharmaceuticals	2.43%
Microchip Technology Inc	Semiconductors & Semiconductor Equipment	2.40%
SPDR Gold Shares	Exhange Traded Funds	2.36%
Lockheed Martin Corp	Aerospace and Defense	2.29%
Rush Enterprises Inc	Trading Companies & Distributions	2.20%

Composite holdings are subject to change and are not recommendations to buy or sell any security.

Composite Top Twenty Holdings are presented as supplemental information to the fully compliant presentation on the next page.

Return on Equity (ROE) is a company's net income (earnings), divided by the owner's equity in the business (book value).

PORTFOLIO MANAGER



Jeffrey P. Muhlenkamp,

Portfolio Manager, CFA, has been active in professional investment management since 2008. He is a graduate of both the United States Military Academy and Chapman University.

INVESTMENT ADVISER

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SMA FACTS

Average Number of Equity Holdings 31 Cash & Cash Equivalents 21.07%

SMA Facts are presented as supplemental information.

SMA INFORMATION

The inception date for the All-Cap Value Composite is December 31, 1993. The All-Cap Value Composite was created in December 2003. The Composite includes fee-paying accounts over \$100,000, full discretion, under management for at least one full quarter which are invested in the All-Cap Value strategy. The composite excludes the Muhlenkamp Fund and any wrap fee account.

Minimum Initial Investment \$100,000.00 Management Fee* 1% (first \$1 million); 0.5% on the remainder

* May vary by account.

Muhlenkamp & Company serves individual and institutional investors through our no-load mutual fund and separately managed accounts.

MUHLENKAMP & COMPANY, INC. ALL-CAP VALUE COMPOSITE ANNUAL DISCLOSURE PRESENTATION

		Total Firm	Composite	ANNUAL PERFORMANCE				THREE-YEAR ANNUALIZED STANDARD DEVIATION*			
	Year End	Assets (USD) (millions)	Assets (USD) (millions)	Number of Accounts	Composite Gross	Composite Net	S&P 500 Total Return Index	Composite	S&P 500 Total Return Index	Composite Dispersion**	
-	2021	317	48	48	28.05	27.11	28.71	18.28	17.41	1.67	
	2020	265	38	45	14.06	13.14	18.40	18.63	18.79	1.38	
	2019	253	34	48	14.70	13.78	31.49	10.33	12.10	1.37	
	2018	254	32	51	(11.71)	(12.45)	(4.38)	9.24	10.80	1.21	
	2017	342	40	52	`15.24	`14.30 [′]	21.83	8.70	9.92	2.12	
	2016	339	39	52	(1.86)	(2.68)	11.96	9.73	10.59	1.17	
	2015	422	48	67	(4.66)	(5.45)	1.38	10.41	10.47	0.68	
	2014	541	51	67	10.27	` 9.37 [´]	13.69	9.55	8.97	2.06	
	2013	585	50	60	35.50	34.39	32.39	11.29	11.94	3.13	
	2012	491	41	66	11.29	10.34	16.00	12.02	15.09	1.14	
	2011	555	45	74	(2.84)	(3.67)	2.11	16.60	18.70	0.85	
	2010	724	59	82	2.96	2.15	15.06			1.45	
	2009	839	90	107	32.68	31.72	26.46			2.80	
	2008	759	112	155	(40.53)	(40.94)	(37.00)			1.97	
	2007	1886	327	289	(7.61)	`(8 19)	` 5.49´			3 77	

The objective of this All-Cap Value Composite is to maximize total after-tax return, consistent with reasonable risk—using a strategy of investing in highly profitable companies, as measured by Return on Equity (ROE), that sell at value prices, as measured by Price-to-Earnings Ratios (P/E).

Muhlenkamp & Company, Inc. ("Muhlenkamp") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Muhlenkamp has been independently verified for the periods December 31, 1993 through June 30, 2016 by Ashland Partners & Company LLP and for the periods July 1, 2016 through December 31, 2021 by ACA Performance Services. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firmwide basis. The All-Cap Value Composite has had a performance examination for the periods December 31, 2006 through December 31, 2021. The verification and performance examination reports are available upon request.

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Muhlenkamp is an independent registered investment advisory firm registered with the Securities and Exchange Commission. The firm maintains a complete list of composite descriptions and pooled funds, which is available upon request.

Returns are based on fully discretionary accounts under management, including those accounts no longer with the firm. Composite may invest in

American Depositary Receipts (ADRs).*** Accounts may be shown gross or net of withholding tax on foreign dividends based on the custodian. Past performance is not indicative of future results.

The U.S. dollar is the currency used to express performance. Returns are expressed as percentages and are presented gross and net of management fees and include the reinvestment of all income. Net of fee performance was calculated using actual management fees. The annual Composite dispersion presented is an asset-weighted standard deviation calculated for the accounts in the Composite the entire year. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.

- * Three-Year Annualized Standard Deviation is a measure of volatility, calculated by taking the standard deviation of 36 monthly returns, net of fees, then multiplying the result by the square root of 12 to annualize it. Since standard deviation measures the dispersion of a set of numbers from its mean, higher results indicate more variation in monthly returns over the trailing three years.
- ** Composite Dispersion is a measure of the similarity of returns among accounts in the Composite. It is the standard deviation of the annual returns, net of fees, for all accounts which were in the Composite for the entire year.
- *** American Depositary Receipts (ADRs) are shares that trade in U.S. markets, but represent shares of a foreign company. A bank (the depository) purchases a number of the foreign shares and holds them in a trust or similar account; in turn, the bank issues shares tradable in the U.S. that represent an interest in the foreign company. The ratio of ADRs to foreign shares is set by the bank. ADRs do not mitigate currency risk, but can reduce transaction costs and simplify trading compared to buying the local shares in the foreign markets.