

Inflation and Fed Tightening: Lessons in Inflationary History and How The Fed's Actions May Impact The Market Moving Forward.

“With a good perspective on history, we can have a better understanding of the past and present, and thus a clear vision of the future.”

- Carlos Slim
Telecom Magnate

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The market is currently roiled in uncertainty due to inflationary pressures and the prospects of a rising interest rate backdrop not seen in nearly two decades. What does this mean for value investing and equities in general? It behooves us first to take a page out of Mr. Slim's book and look at history to determine if we gain any insights in what potentially to expect and how we can go about navigating this environment.

In this paper, we will start by examining the current inflationary pressures and how they look compared to other periods in history. Secondly, we will examine historical periods in time where the Federal Reserve (The Fed) has raised rates, i.e. tightening the money supply. Lastly, we will look at the general historical swings in value as it relates to growth in an attempt to decipher the possible upcoming ramifications on the market.

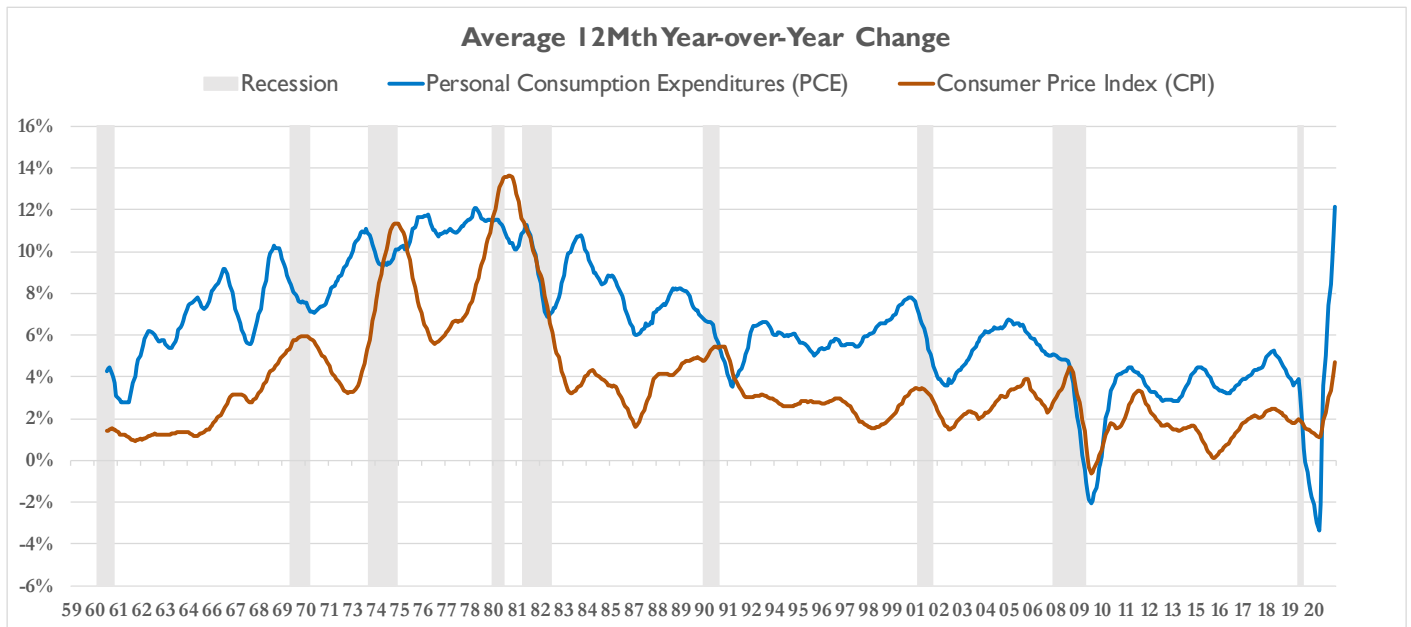
At Foundry Partners, we have been talking about inflation beyond the threat of “transitory inflation” dating back to late 2020 and early 2021. We even discussed in a podcast back in August of 2021 that “Concerns of inflation have bubbled to the surface since the start of 2021 as the global economy has dealt with the COVID pandemic.

\$6 trillion plus dollars of government stimulus and counting since March of 2020, supply chain issues across the globe, pent up demand as the world re-opens and pockets of labor shortages in the US have combined to create an ongoing period of rising prices on many goods and services not seen for nearly two generations.”

What exactly is inflation? The most common definition is a sustained period of rising prices and the most widely used measures are CPI (the Consumer Price Index) and PCE (Personal Consumption Expenditures component of the gross domestic product report); with both being reported by the government on a monthly basis. While we have our reservations on the accuracy of such measures (which could take up an entire paper of its own), for simplistic purposes these are the best indicators and most likely what people will read about in the paper, or as we like to say "frame the narrative.” We also like to look at the velocity of money as an indicator, which is just simply the ratio of GDP divided by the money supply in the economy.

In Exhibit 1, we chart the Consumer Price Index (CPI) and Personal Consumption Expenditure (PCE) Component of Gross Domestic Product (GDP) dating back to 1959 (grey shaded areas indicate a recession). The chart represents the year over year change in these two data sets and are the most common used measures to gauge the level of price changes in the economy (or inflation/deflation).

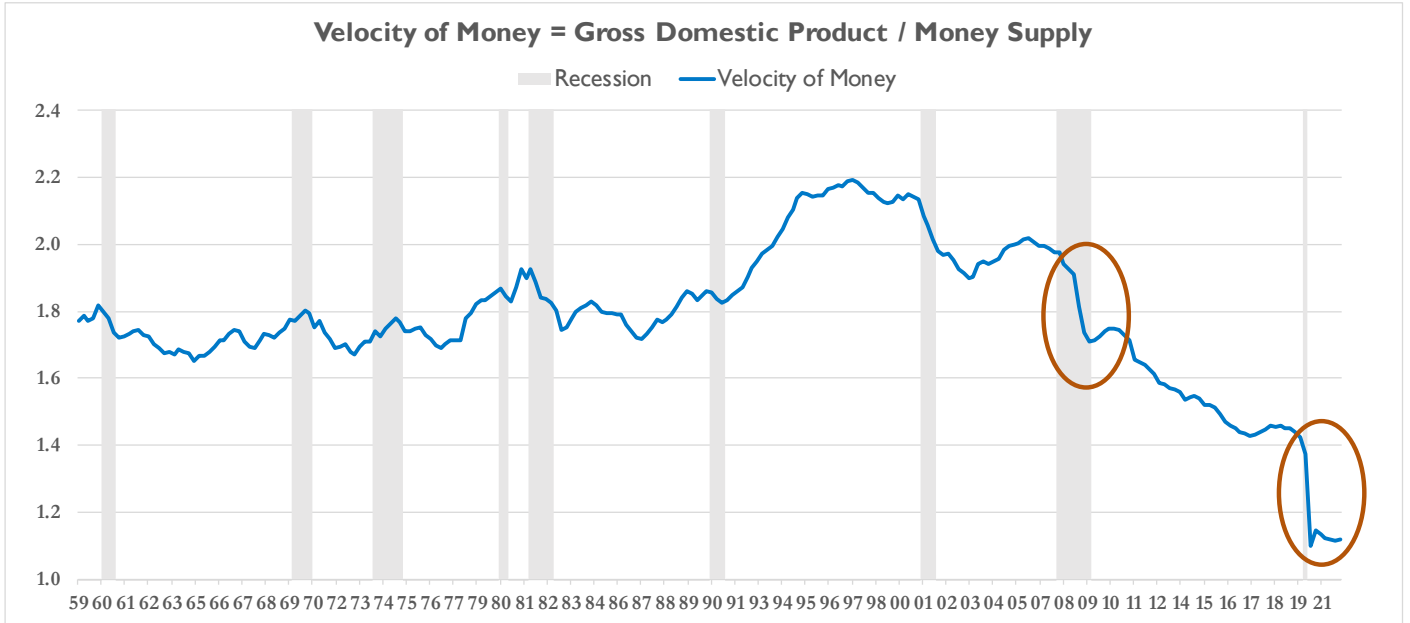
Exhibit 1



Source: Federal Reserve Bank of St. Louis

The velocity of money, as seen in Exhibit 2 (following page), is another metric that can help determine inflationary or deflationary pressures. This simple equation is the ratio of the United States’ GDP over the amount money circulating in the economy. This ratio has been on a steady decline since 2001. Measures taken by the Federal Reserve to offset recessionary pressures has increased the supply of money at a faster pace than the growth in GDP. This is most evident in the severe drop coming out of the 2008 credit crisis and 2020 COVID pandemic.

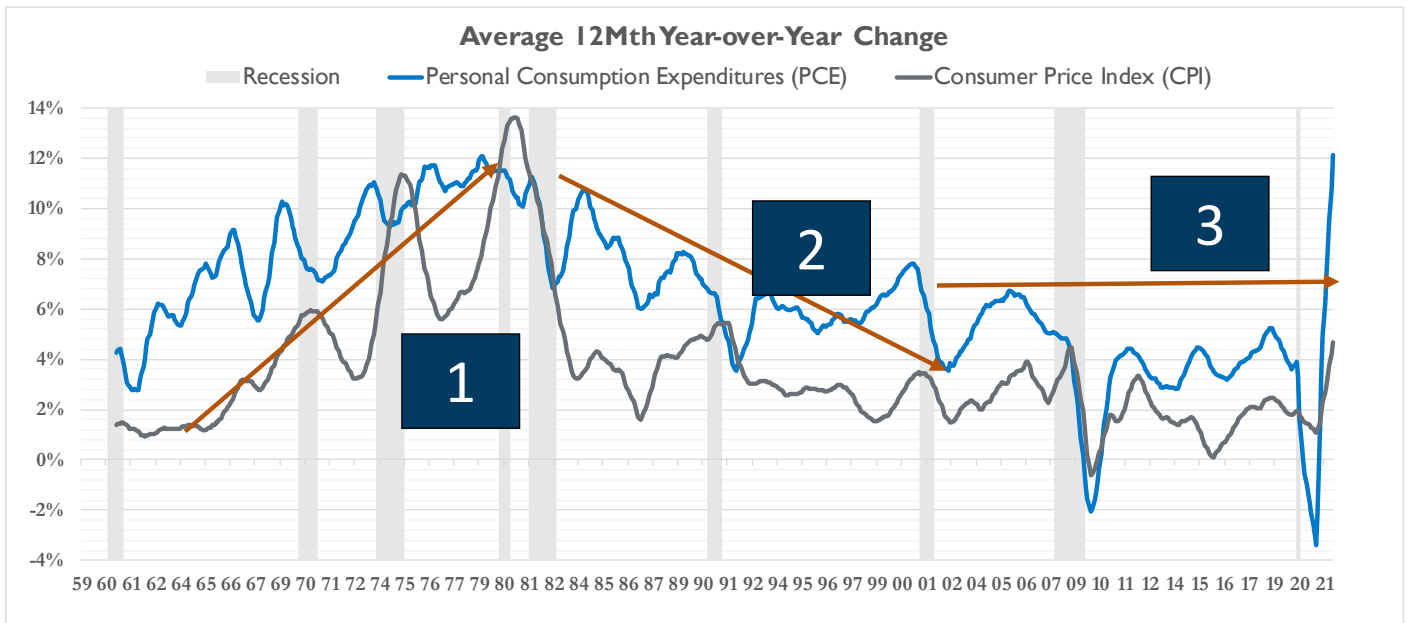
Exhibit 2



Source: Federal Reserve Bank of St. Louis

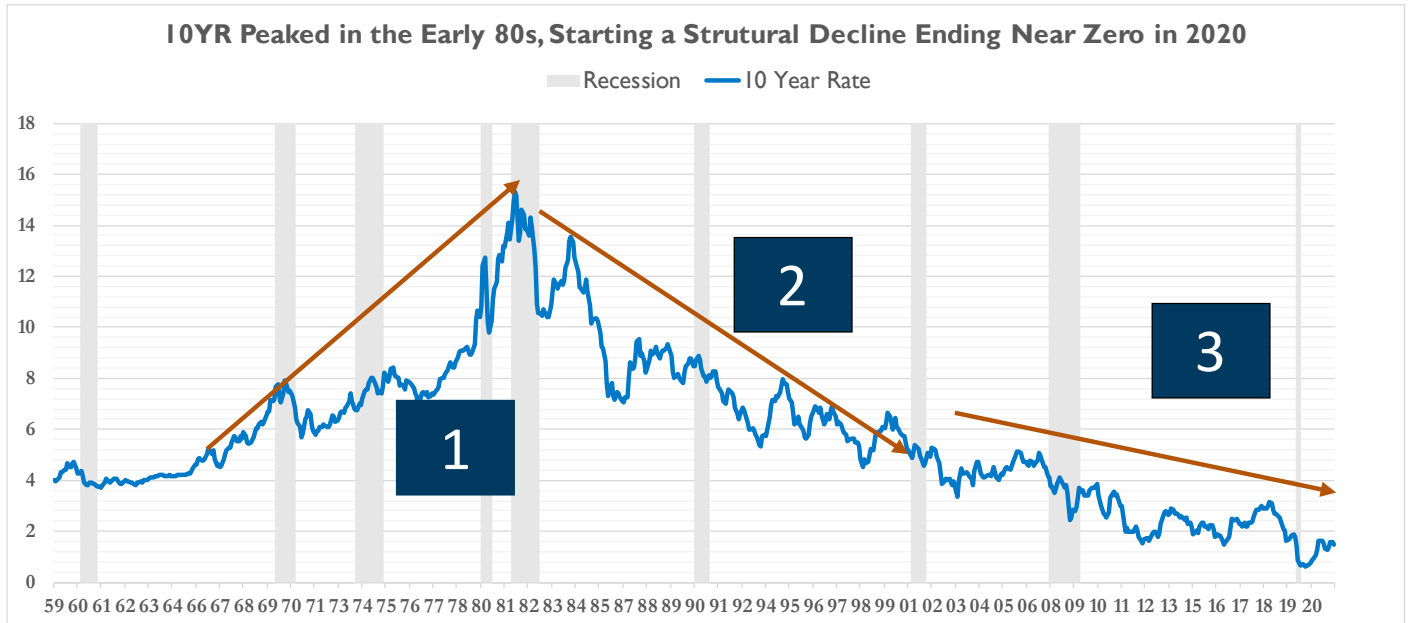
We break down the past five decades into three stages starting with the 1970s, which is the most well-known period of inflationary pressures. The first chart (Exhibit 3) is the year-over-year change in CPI and PCE while the second (Exhibit 4 – next page) is a chart of the 10-year rate.

Exhibit 3



Source: Federal Reserve Bank of St. Louis

Exhibit 4



Source: Federal Reserve Bank of St. Louis

Despite periods of growth, the decade of the 1970s (#1) resembled more of a stagflationary environment (rising prices with falling GDP) as it started and ended with a recession. Nixon going off the gold standard, oil shocks, government deficits and rising wages due to social unrest all contributed to the inflationary pressures felt during that period. Interest rates rose dramatically as the Federal Reserve Chairman at that time, Paul Volcker, raised rates to stymie the effects of inflation. The rate increases worked, but it came at a cost of three recessions.

The second phase covered the early 80s to the late 90s (#2). This stage was characterized by two juggernaut themes: globalization and a technological revolution. Despite spurts of rising money supply to offset exogenous shocks and climbing government deficits, these two themes created overcapacity in the manufacturing sector and higher productivity in the services industry keeping a lid on inflationary pressures.

The final phase (#3) started with the tech bubble which perpetuated a cycle of lower rates that accelerated during the credit crisis as the Federal Reserve kept rates near zero and culminated with real rates (or inflation adjusted rates) going negative during the COVID pandemic.

The Federal Reserve has implemented a zero interest-rate policy for a better part of the last 20 years, particularly since the credit crisis. From an investment standpoint, long-duration assets (i.e. negative earners and new entrants) and compounders (i.e. accelerating profitability and earnings growth stocks) have performed the best in this environment. The laggards over this period were incumbent companies in low-growth industries with profitable mature businesses that generated considerable cash flow but topline growth was capped.

COVID provided the perfect spark. We can see and feel that inflation is here and has exhibited characteristics beyond “transitory.” We continue to see escalating energy prices, breaks in the supply chain, and empty shelves. Easy money policies have only exacerbated this issue, further fanning the flames. This puts The Fed in a precarious situation, as they would like to slow down the decay of the dollars purchasing power and reign in the current inflation. Jerome Powell, current Federal Reserve Chairman, has telegraphed the expectation of multiple rate hikes in 2022 and beyond. This prompts us to look at past tightening cycles and try to glean information about what we can possibly expect going forward.

Dating back to 1924, we have witnessed roughly 16 “tightening periods” (see Exhibit 5). For a majority of those periods we can see notable trends that are present and provide the brush strokes that frame a picture. First off, the performance of the S&P 500 was generally positive over the 12-month period before and after a tightening period with the Great Depression period as the only exception. In addition, there were 11 periods where the S&P 500 rose double digits during these tightening cycles, three where it was flat to marginally higher, and only two where the index fell. History would suggest that the macro drivers in play prompting The Fed to take a tightening policy has been an overall positive for the market.

Exhibit 5

Date	Fed Funds or similar	% Incr in Fed Funds	CPI			SP500			SP 500 5Y Avg Multiple	Real GDP	M3	French B/M Returns During Tightening						
			IYR Before	IYR During	IYR After	IYR Before	IYR During	IYR After				Start/End	During	During	Date	Hi P/B	Qnt 2	Qnt 3
1924	1.9	3.2	-1%	0%	4%	15%	175%	20%				1924						
1929	5.1								19x			1929						
1931	0.4	2.4	-9%	-3%	-10%	-32%	-41%	-65%	12x			1931	-38%	-39%	-45%	-48%	-50%	
1931	2.8								8x			1931						
1947	0.4	1.9	18%	22%	10%	-20%	61%	13%	15x	33%	27%	1947	85%	99%	120%	109%	179%	
1953	2.2								10x			1953						
1954	0.7	2.9	0%	5%	-1%	21%	42%	37%	11x	14%	18%	1954	35%	42%	57%	57%	57%	
1957	3.5								14x			1957						
1958	0.6	3.4	3%	2%	1%	-6%	32%	28%	14x	10%	9%	1958	44%	42%	46%	53%	56%	
1959	4.0								17x			1959						
1961	0.7	5.1	2%	10%	1%	3%	35%	16%	18x	37%	56%	1961	32%	56%	73%	98%	153%	
1966	5.7								20x			1966						
1967	3.6	6.0	2%	11%	4%	17%	0%	4%	20x	9%	13%	1967	9%	12%	19%	29%	38%	
1969	9.6								18x			1969						
1972	3.3	9.3	4%	20%	4%	8%	-25%	9%	18x	11%	32%	1972	-55%	-50%	-40%	-36%	-31%	
1974	12.6								14x			1974						
1976	4.7	13.1	5%	38%	7%	18%	0%	-10%	14x	14%	41%	1976	90%	74%	77%	90%	125%	
1980	17.8								10x			1980						
1980	9.0	10.2	13%	10%	11%	17%	10%	8%	10x	4%	10%	1980	38%	41%	38%	35%	40%	
1981	19.2								11x			1981						
1983	8.4	3.1	4%	7%	4%	23%	14%	15%	10x	12%	14%	1983	-7%	19%	28%	36%	50%	
1984	11.5								11x			1984						
1988	6.6	3.2	4%	6%	5%	-9%	14%	10%	16x	5%	6%	1988	4%	20%	21%	20%	22%	
1989	9.9								15x			1989						
1994	3.0	3.0	3%	4%	3%	9%	7%	-2%	20x	4%	2%	1994	-12%	2%	4%	7%	12%	
1995	6.0								20x			1995						
1999	4.7	1.8	2%	6%	3%	30%	18%	14%	32x	7%	14%	1999	40%	41%	32%	41%	43%	
2000	6.5								33x			2000						
2004	1.0	4.3	3%	10%	3%	15%	34%	6%	22x	9%	25%	2004	28%	54%	53%	49%	66%	
2007	5.3								22x			2007						
2015	0.4	2.0	1%	8%	2%	2%	44%	4%	19x	9%	17%	2015	39%	31%	35%	31%	25%	
2019	2.4								24x			2019						
2022	0.1		7%			23%			33x			2022						

*Fed Funds Rate from 1954 on; 3Mth T-Bill or similar before

*10Year Rate from 1961; US Yield on LT Rates before

	IYR Before	IYR During	IYR After	Hi P/B	Qnt 2	Qnt 3	Qnt 4	Low P/B
MEAN	6.9%	26.3%	6.8%	22.2%	29.5%	34.6%	38.0%	52.4%
MEDIAN	11.7%	15.7%	9.4%	31.7%	41.3%	35.3%	36.1%	42.9%

Sources: Kenneth French, FRED website (Federal Reserve), and Foundry Partners

We also examined the relationship between value and growth by using the French data (Kenneth French of the Fama/French study) and looked at returns in five separate quintiles based on the Price-to-Book ratio (P/B). In 11 of the 15 tightening periods, the quintile with the lowest P/B ratios posted the highest returns. Furthermore, in two of the remaining four periods, the lowest P/B quintile had the second-highest returns.

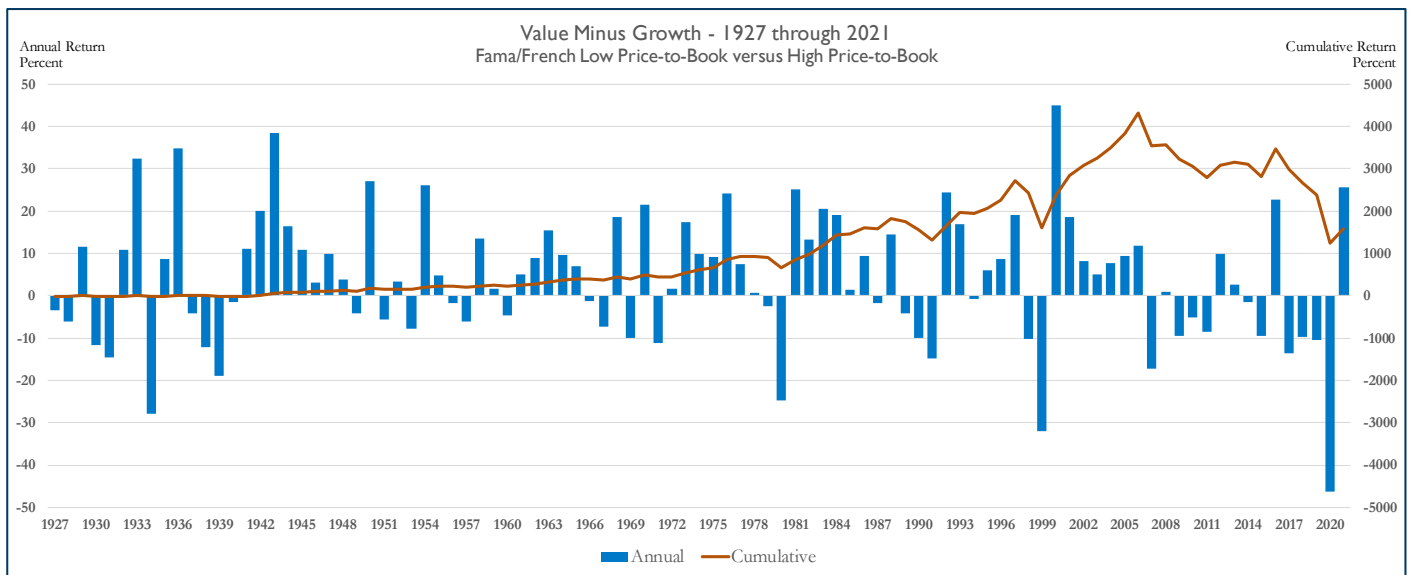
Overall, tightening periods tend to provide a positive tailwind for the value factor. The most common reason for this dynamic is that tightening periods traditionally occur when the economy is still growing as can be seen in the rise of Real GDP growth in the table above. Are there other potential tipping points that we can infer from the past?

We appear to be exiting one the longest cycles of low multiple stocks underperforming expensive ones (particularly in the case of Price-to-Book). History would suggest that a rotation in leadership is well underway due to the events following the pandemic and that we are entering a multi-year period of low-multiple stocks outperforming higher ones (i.e. or value outpacing growth).

By continuing to look at Kenneth French’s data, in Exhibit 6 we charted the spread in performance between the Low Price-to-Book stocks (value) and High Price-to-Book stocks (growth) over the past 95 years (dating back to 1927).

As Exhibit 6 indicates, value’s premium has historically had an upwards trending cumulative slope (outperforming 57 out of the 95 periods – 60% of the time) and peaked in 2006 during the bursting of the housing bubble. In the aftermath of the credit crisis, through COVID, growth outperformed value in 10 of those 14 years. Additionally 2020 saw the greatest year of growth outperformance at approximately 46% (particularly notable as the second largest spread was in 1999 at approximately 32%). This capped the fourth straight year that growth (in terms of Price-to-Book) outperformed value, which has happened only one other time (in the 30’s) in our 95-year examination period.

Exhibit 6



Source: Kenneth French (https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html), Foundry Partners.

Chart Summary (Above)

The Fama/French factors are constructed using the six value-weighted portfolios formed on size (Small, Large) and book-to-market (Value, Neutral, Growth).

Value stocks are characterized by high ratios of book value to market value (conversely Low Price-to-Book). HML (High Minus Low) is the simple average of the return on the two value portfolios (Small Value and Big Value) minus the simple average of the return on the two growth portfolios (Small Growth and Big Growth). When the result is positive, Value is outperforming Growth.

These rotational periods where the “cheapest” quintile stocks (P/B) come into favor over the most “expensive” quintile often are associated with sharp and sustained periods. Looking back at other periods of outperformance by growth, value tends to rebound very nicely.

Exhibit 7

Time Frame	Equal Weighted Annualized Returns				
	High P/B	Q2	Q3	Q4	Low P/B
1937 to 1940	-6%	-8%	-9%	-11%	-18%
1941 to 1950	11%	15%	19%	22%	36%
	High P/B	Q2	Q3	Q4	Low P/B
1978 to 1980	56%	41%	34%	32%	34%
1981 to 1986	3%	14%	17%	19%	22%
	High P/B	Q2	Q3	Q4	Low P/B
1998 to 1999	22%	13%	9%	9%	13%
2000 to 2006	0%	13%	16%	21%	27%
	High P/B	Q2	Q3	Q4	Low P/B
2017 to 2020	22%	16%	12%	7%	9%
2021 to ????	??	??	??	??	??

Sources: Kenneth French, Foundry Partners.

In summary, the Fed's determination to counter inflationary pressures due to the monetary and fiscal responses that started after the credit crisis and culminated during COVID is setting up for a period of rising rates and a less accommodative money supply. History suggests that low-multiple (value) stocks tend to outperform high-multiple (growth) stocks during these tightening periods. Additionally, 2021 saw a shift away from what has been one of the longest and most notable periods of growth outperforming value over the past 95 years, and in our opinion was the canary in the coal mine. We believe that there are multiple factors in play suggesting an upcoming period of time that is favorable for value investors and for stocks that have a low-valuation emphasis.

In Exhibit 7, we looked at three of these rotational periods where "expensive" stocks notably outperformed "cheap" stocks, and what happened in the cycle following the inflection point.

Starting with the growth outperformance in 1998 and 1999, value saw the strongest year in 2000 and set up a run lasting seven years. We also saw similar value rebounds in the 80's and 40's following a strong growth cycle in 1979 and 1980 and the growth outperformance (relative to value) in the late 30's.

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Mark Roach is the Lead Portfolio Manager on the Fundamental Small Cap Value team for Foundry Partners. Mark started in the industry in 1995 and has been with Foundry Partners since the company's transaction with Dreman Value Management (DVM) in June of 2016. He was with DVM from late 2006-June 20, 2016 in a similar capacity. Prior to joining DVM, Mr. Roach was a Portfolio Manager at Vaughan Nelson Investment Management, managing a small cap product from 2002 through 2006. Mr. Roach has significant experience in working with institutions, pensions and endowments and is well known in the consulting and high net worth community. Mr. Roach served as a security analyst from 1994 to 2001 for various institutions including Fifth Third Bank, Lynch, Jones & Ryan and USAA.

Mr. Roach graduated from Baldwin Wallace College with a B.A. in Business, and earned a MBA from the University of Chicago's Booth School of Business. In addition, Mr. Roach is a former board member on the Rice University Wright Fund.

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Mr. Tufano graduated from Pennsylvania State University with a B.S. in Finance. He is a CFA charterholder and is a member of the New York Society of Security Analysts (NYSSA).

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Jason Thon is the Marketing and Products Manager for Foundry Partners LLC. Jason started in the industry in 1999 and has been with Foundry Partners since inception in 2013. Prior to joining Foundry Partners, Mr. Thon did creative consulting and oversaw marketing and vendor relations for Staja Studios. Jason began his career as part of a small discretionary management group within Everen Securities. After two years as an analyst with a family owned practice, he joined regional consulting firm, Defined Contribution Advisors as an analyst, where he was later promoted to lead the performance reporting functions for DCA while continuing to conduct manager research.

Jason earned a B.S. in Finance from the University of Wisconsin, LaCrosse in 1998.

About Foundry Partners:

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The firm was formed out of a desire to create a unique and independent atmosphere. With an average of over 25 years of investment experience per manager, our autonomous investment teams are able to offer a diverse product set while bringing the stability and confidence needed to navigate a variety of market environments.

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