FOUNDRY PARTNERS

Is Quality Investing Back "*En Vogue*"

In the current economic landscape, is now still the time for "quality" to shine?

In this piece we attempt to define quality in precise terms, examine the quality and value factors within the small cap space over market cycles, illustrate how we view quality within the Foundry Fundamental Small Cap Strategy and provide tools by which one can navigate market inflection points.

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The decade of the 1960s saw the baby boomers come of age, the civil rights movement at the forefront of politics and a level of peace-time economic growth not seen in seven decades - epitomized by the "Nifty Fifty" stocks. The ensuing decade was marred by the Vietnam War, bouts of inflation and a series of interest rate hikes that caused three recessions. The economic boom of the 1960s turned into the great inflationary reset of the 1970s.

Much like then as today, we find ourselves at a turning point in the economic environment after more than a decade of expansion (albeit below trend) that is affecting markets and geopolitics on a global scale. This shift in landscape is also impacting investment behavior and the factors driving performance.

In early 2021 we mused on the start of a new value cycle in our piece entitled "The Case for Small Cap Value Investing" and wrote the below:

"A shift towards reflation and rising interest rates. The move is upon us, value has reemerged and is showing signs of taking the lead. This should bode well for value and small cap stocks as growth spreads from the few disruptors to the entire market as the economy reopens."

The value and quality factors started to work, once again, in the middle of 2021 following several years of quantitative easing and shifts in the geopolitical landscape that were magnified by a major pandemic. We now find ourselves at the end of 2022 pondering on how long this current cycle will last.

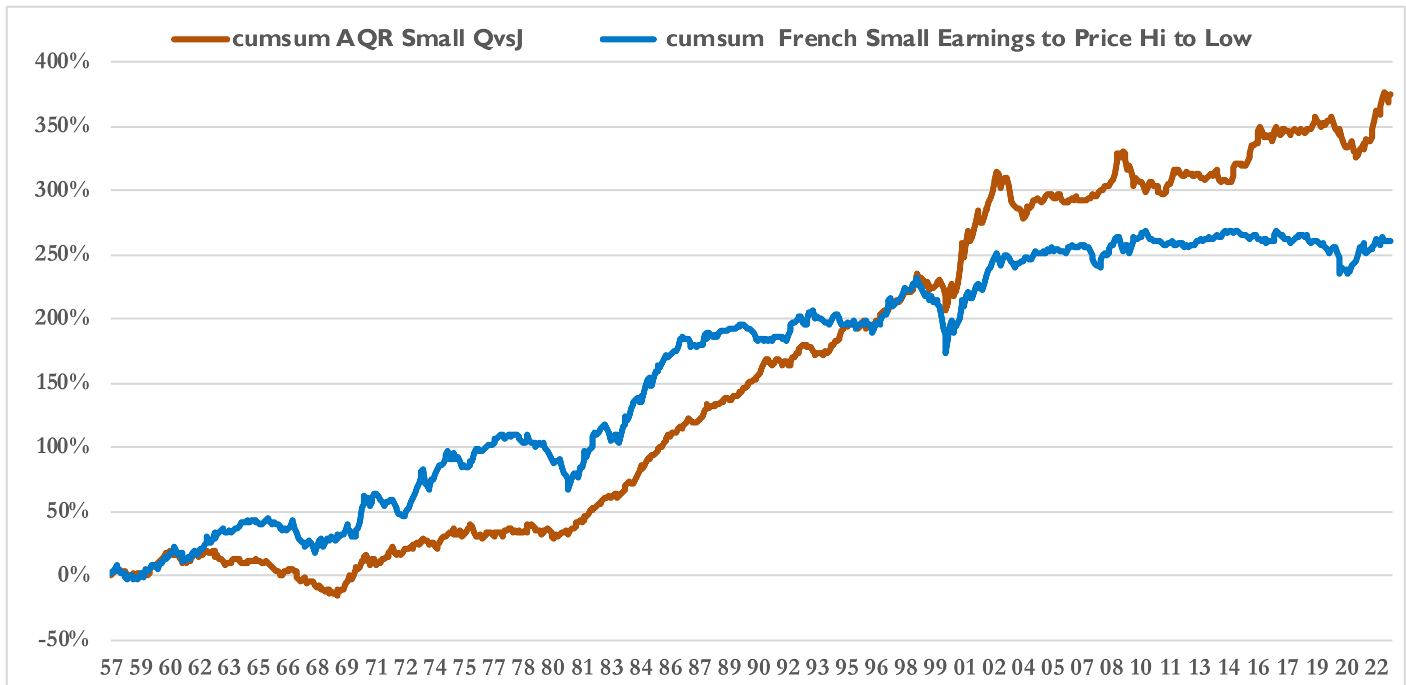
The level of rates and inflation expectations will no doubt have some impact on the outcome. History suggests, however, that we are at the start of a new cycle where the price paid for an asset (value factor) and the quality of that asset purchased (quality factor) will matter more than the past decade, particularly after a euphoric period like the one recently ended.

While the value factor can be easily quantified, the quality factor is more elusive given some of its qualitative characteristics (i.e. competitive moat, management capabilities, etc.). The phrase "I know it when I'll see it" [1] comes to mind when dealing with quality. Most investors know quality when they see it but differ on what it exactly entails.

Several white papers over the past decade have attempted to quantify quality each with their own amalgamation of metrics. Cliff Asness and crew from the well-known quant fund AQR Capital Management have done the best, in our opinion, of doing just that in their 2017 white paper entitled, Quality vs Junk[2].

Below we graph AQR's Small Cap Quality vs Junk score overtime along with the low value versus high value factor as defined by the French database[3]. As illustrated, both factors have worked for the better part of six decades, with some periods of underperformance for each factor.

Exhibit 1: cumsum[4] AQR Small Cap Quality vs. Junk & French Hi vs. Low Earnings to Price



Source: AQR & French Data

[1] In 1963 a United States Supreme Court Justice Judge uttered the phrase "I know it when I'll see it" with regards to a case on obscene content involving an adult film. https://supreme.justia.com/cases/federal/us/378/184/#F2/2

[2] The authors combined three measures into one score that in their opinion define quality: Profitability, Growth and Safety. Each measure is quantified with common financial metrics and the final score is grouped into portfolios based upon size (Small and Large) and quality (Low, Medium, High). The dataset goes back to 1957. See link for more details: https://link.springer.com/article/10.1007/s11142-018-9470-2

[3] We use the French Database of portfolios that is constructed at the intersection of 2 portfolios formed on size (Small and Large) and 3 formed on Earnings/Price (Hi, Medium, Low). https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/six_portfolios_me_ep.html

[4] The cumsum is a rolling summation of the difference between high quality and low-quality stocks and low value and hi value stocks using monthly returns. A rising line indicates that quality is outperforming "junk" and low value is outperforming high value.

In the tables that follow, we breakdown and analyze the decades into four periods: 1) 1965 to 1998; 2) 1999 to 2010; 3) 2011 to 2019 & 4) 2020 to Today.

In the second half of the 1960s both the quality and value factors underperformed within the small cap space. As the 1970s progressed, the headwind that quality and value faced turned into a tailwind. Value experienced a considerable drawdown to growth at the start of the 1980s. While both factors picked up significant momentum throughout the 1980s and 1990s, ending at the onset of the dotcom bubble.

Exhibit 2: Value & Quality Factors (1965 to 1998)

Dates	Length	French Data (Cumulative)		AQR Small Cap Quality (Cumulative)	
Start to End	(Mths)	Hi PE	Low PE	Low Qual	High Qual
12/64 to 01/69	49	249%	219%	188%	126%
02/69 to 09/79	127	38%	219%	-36%	21%
10/78 to 11/80	25	74%	28%	33%	31%
12/80 to 12/89	108	75%	574%	-47%	77%
01/90 to 08/98	355	119%	249%	-16%	113%

Source: AQR & French Data

The 2000s were plagued with two bursting bubbles. Post the dotcom frenzy, both the quality and value factors provided downside protection (03/00 to 02/03) but lagged in the initial recovery phases of the rally (03/03 to 08/03). During the credit crises, value lagged while quality protected to the downside (02/07 to 03/09). The opposite occurred in the ensuing recovery phase (04/09 to 05/10) as value rebounded, while quality stocks underperformed.

Exhibit 3: Value & Quality Factors (1999 to 2010)

Dates	Length	French Data (Cumulative)		AQR Small Cap Quality (Cumulative)	
Start to End	(Mths)	Hi PE	Low PE	Low Qual	High Qual
09/98 to 02/00	18	108%	19%	101%	56%
03/00 to 02/03	36	-39%	38%	-68%	8%
03/03 to 08/03	6	43%	31%	65%	34%
09/03 to 01/07	41	66%	99%	51%	62%
02/07 to 03/09	26	-41%	-44%	-64%	-45%
04/09 to 05/10	14	56%	74%	110%	68%

Source: AQR & French Data

Exhibit 4: Value & Quality Factors (2011 to 2019)

Dates Start to End	Length (Mths)	French Data (Cumulative) Hi PE	French Data (Cumulative) Low PE	AQR Small Cap Quality (Cumulative) Low Qual	AQR Small Cap Quality (Cumulative) High Qual
06/10 to 10/19	113	185%	152%	49%	184%

Exhibit 5: Value & Quality Factors (2020 to 2022)

Dates Start to End	Length (Mths)	French Data (Cumulative) Hi PE	French Data (Cumulative) Low PE	AQR Small Cap Quality (Cumulative) Low Qual	AQR Small Cap Quality (Cumulative) High Qual
11/19 to 01/21	15	45%	23%	68%	27%
02/21 to 8/22	19	2%	19%	-34%	6%

Source: AQR & French Data

The low-rate environment perpetuated by the Federal Reserve during the 2010s weighed upon the value factor for most of the decade. Quality companies outperformed, however, given the sluggish growth environment.

Both factors significantly underperformed through COVID. The euphoria bubbling under the surface prior to the pandemic reached peak mania in 2021 given the amount of stimulus infused into the markets. This period was eerily reminiscent of the late 1960s and 1990s outlined above. Since the peak of the "meme market" in 2021, and particularly given the recent rise in rates, both the quality and value factors have outperformed.

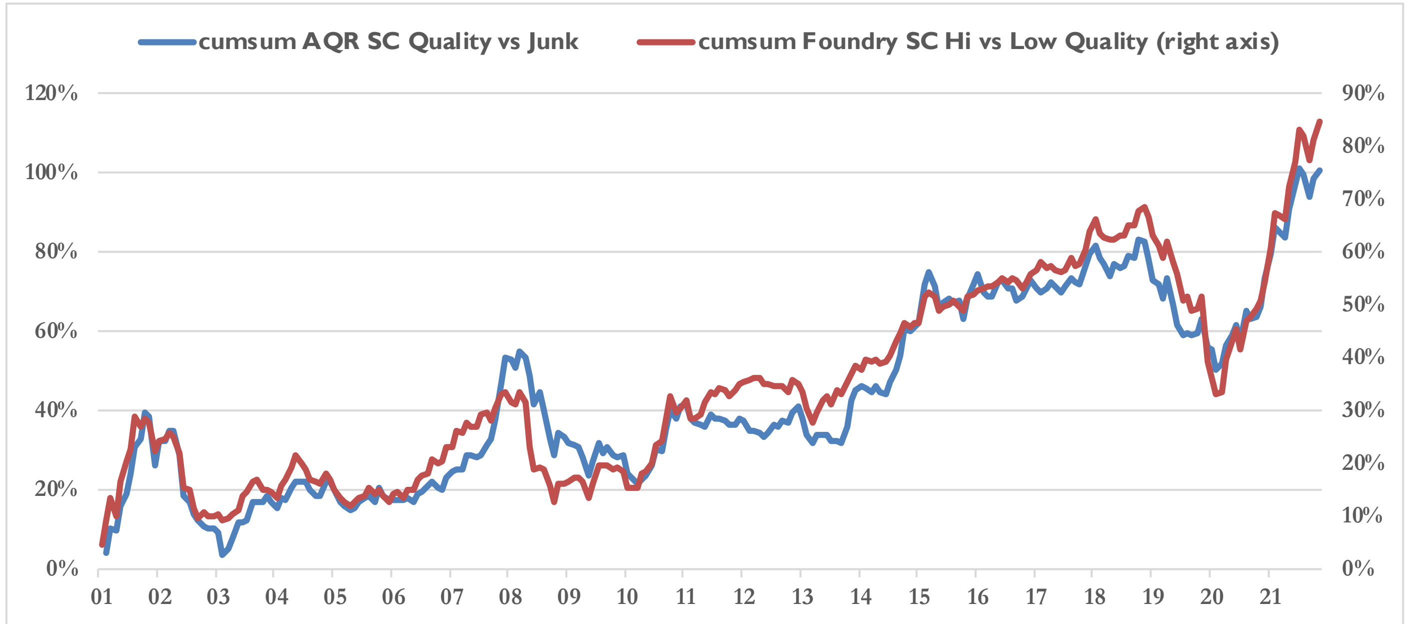
We have always leaned on quality as a guiding factor supported by our fundamental work. In 2016 we quantified *quality* within our screening process and defined it under four key categories[5].

1. Level of profitability
2. Directional change in profitability
3. Variance of profitability
4. Financing used to source profitability

As shown in the chart on the following page, our small cap quality factor is highly correlated with AQR's small cap "quality vs junk" score. We recognize the flaws in attempting to quantify a factor that can be subjective and one which is influenced by sector nuances (i.e. energy prices within exploration & production names, credit charge-offs within banks). Nonetheless, the quantitative components highlighted above provide a guide in analyzing quality across sectors and a framework to monitor potential inflection points in investor preferences.

[5]We exhausted several of the similar metrics used in prior whitepapers and filtered the list down to 6 key metrics that corresponds with the categories highlighted above: 1) ROE & ROA; 2) proprietary earning trend factor; 3) share buybacks & yield; and 4) free-cash flow to debt. We Z-scored each metric using small cap and sector constraints. We then added up the individual scores into one final score which we decile ranked within respective sectors. We exclude the REIT sector and equal weight the portfolios comparing the top 3 decile ranked quality names versus the bottom 3 ranked ones.

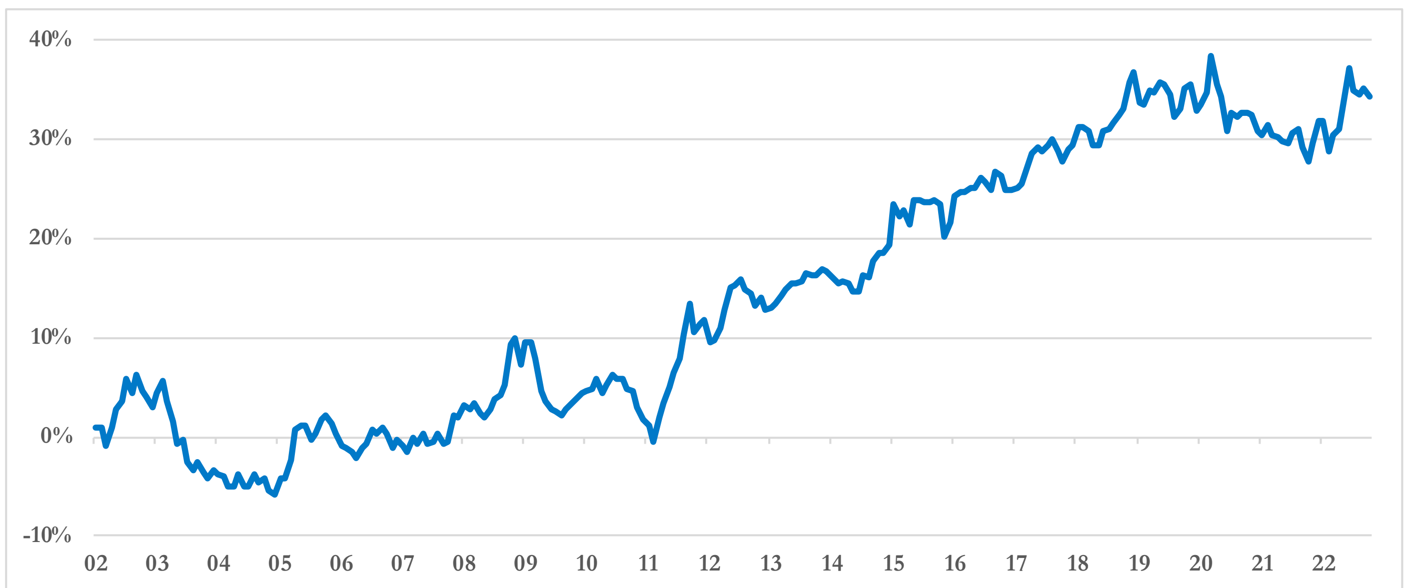
Exhibit 6: cumsum AQR Small Cap Quality vs Foundry Partners Small Cap Hi vs Low Quality



Source: AQR & Foundry Partners LLC

Below we graph the difference in performance of a basket of small cap quality value stocks[6] versus the performance of all other value stocks, both equally weighted using monthly returns. A rising line indicates that quality is adding alpha, while a declining one indicates detraction. A bias towards quality within value has added alpha over the past two decades, despite periods of underperformance.

Exhibit 7: cumsum Foundry Small Cap Hi Quality Value Stocks vs Remainder Value Stocks

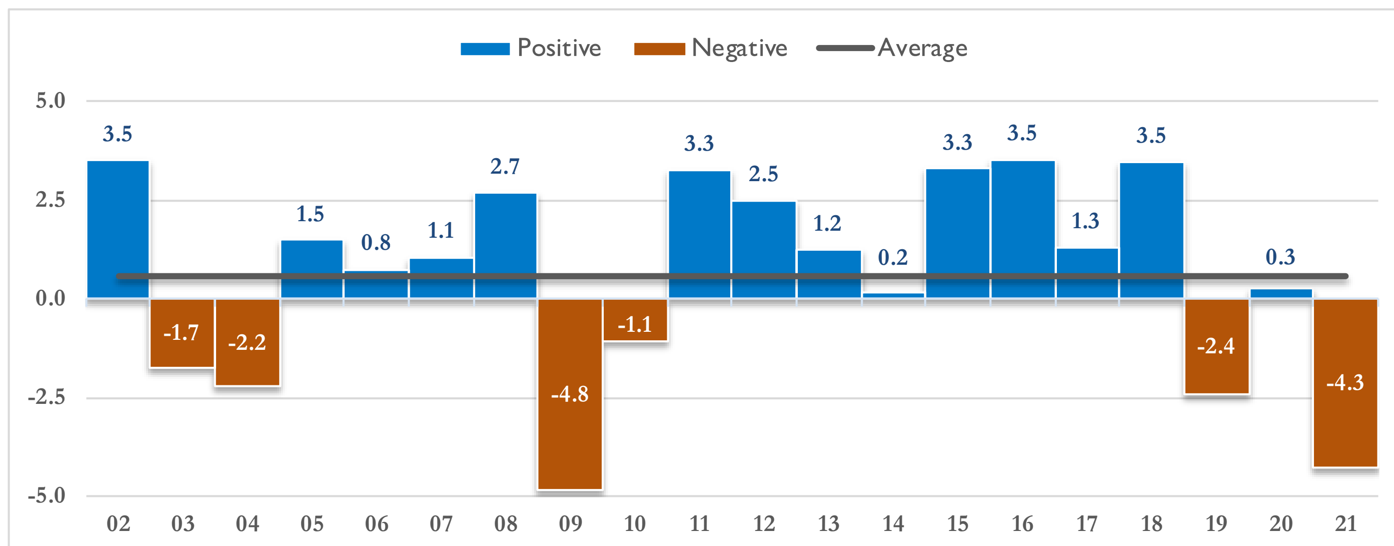


Source: AQR & Foundry Partners LLC

[6]Foundry Partners defines value as the top two quintile of stocks ranked within proprietary industry groupings utilizing a next-twelve-month price-to-earnings multiple.

Given our apprehension to only look at factors in the aggregate (a flaw we discussed in our think piece entitled *Fear and Greed: Navigating Behavioral Biases and White Paper Expectation Fallacies**), we run the quality factor through our proprietary portfolio simulator. This tool allows us to recreate portfolios over time and evaluate the impact of a specific factor through multiple trading iterations[7]. Below we chart the results over a 20-year period. A positive number indicates that the Foundry Partners quality factor added alpha that year while a negative indicates detraction.

Exhibit 8: Alpha Added to a basket of Small Cap Value Stocks when trading the Foundry Quality Factor



Source: FactSet & Foundry Partners LLC

After applying the Foundry Partners quality factor to the small cap value universe and looking at the AQR data we walk away with some interesting observations:

1) trading based upon quality within small cap value over the past two decades added alpha;
2) the factor does the best between market extremes; and
3) the bias comes at a cost off market bottoms.

Studies have showed that certain quality factors have a negative correlation with value[8]. This negative correlation helps during selloffs as investors flock to companies with a steady stream of earnings but detracts during market rallies when investors return to oversold names. These episodes tend to follow a period when fear has paralyzed market participants. It is from these bottoms where low quality companies have been oversold and bounce the hardest (the junk rally). The period after 9/11, the nadir of the credit crisis and most recently the COVID bottom resulted in underperformance for the quality factor. It is during these periods where an emphasis on value over quality provides better upside participation during the initial recovery phase.

[7]Each year we start with a portfolio of the lowest value quintile stocks (called the static portfolio) and compare it to a portfolio that filters out low quality names over the course of the year (called our dynamic portfolio). The dynamic portfolio is traded every three months. Value stocks (quintile rank 4 and 5) that become low quality (decile rank 8, 9, 10) are replaced randomly with ones that are high quality (decile rank 1,2,3). We then take the difference in annual performance between the static and dynamic portfolios. It answers the question, "Would I have been better off utilizing this factor if I had multiple trading lives?"

[8]A whitepaper published by University of Rochester Professor Robert Novy-Max in 2012 entitled "Quality Investing" discusses some of the most common quality strategies. In this piece he provides a table that shows correlations across these strategies and the value factor. Pg11, Table 1 http://rnm.simon.rochester.edu/

**Fear & Greed* Paper can be found: https://foundrypartnersllc.com/wp-content/uploads/2019/07/Fundamental-White-Paper_2019.pdf

We also find that quality stocks lag when greed has gripped the market and market participants are more focused on long-term prospects rather than near-term fundamentals. During these euphoric episodes neither a bias to value nor quality will protect relative performance as fundamentals become detached from reality. This happened in the late 1960s amid the run of the Nifty-Fifty stocks, again in the late 1990s when the tech bubble was underway and most recently during the Covid stimulus bull market of the late 2020/early 2021 period.

Exhibit 9: Value & Quality Factors During Euphoric Periods

Dates	Length	French Data (Annualized)		AQR Small Cap Quality (Annualized)	
Start to End	(Yrs)	Hi PE	Low PE	Low Qual	High Qual
12/64 to 01/69	4.1	36%	33%	30%	22%
09/98 to 02/00	1.4	58%	11%	55%	32%
11/19 to 01/21	1.2	35%	15%	46%	20%

Exhibit 10: Value & Quality Factors After Euphoric Periods

Dates	Length	French Data (Annualized)		AQR Small Cap Quality (Annualized)	
Start to End	(Yrs)	Hi PE	Low PE	Low Qual	High Qual
02/69 to 08/98	29.6	8%	17%	-3%	6%
03/00 to 01/07	6.9	5%	20%	-3%	13%
02/21 to 08/22	1.8	2%	12%	-24%	4%

Source: AQR & French Data (Exhibits 9 & 10)

This boom-and-bust cycle across markets and within industries provides a fertile ground for stock-pickers to invest in high quality companies at low valuations. To the left we illustrate the annualized returns of both quality and value during and after those euphoric periods.

As fundamental investors we strongly believe in active management, but as behavioral investors we are grateful for efficient markets!

At the start of the 1970s the economist Eugene Fama published his seminal work defining the Efficient Market Hypothesis with this sentence "A market in which prices always 'fully reflect' available information is called 'efficient'" [9]. Markets are efficient - too efficient, in our opinion, in pricing in the irrationality of the majority.

The market is a forum for players to interact and a mechanism in which price discovery is allowed. The collective perception of the data analyzed at that place and time creates the market, regardless of the rationality of the players involved. Market extremes represent times when the majority is acting most irrational. Only in hindsight, during the postmortem phase of such a period, do we realize just how entrenched the irrationality of the players were in influencing the pricing mechanism of the markets.

It is of our opinion that all extreme markets, regardless of cause, end up as a behavioral phenomenon driven by crowd mentality (FOMO at the peak and fear of permanent loss at the bottom). They start, however, from differing points of rationality. Inflection points and repricing of markets occur when new players enter the market and sway the decision making of the majority or if current participants start interpreting the data differently. The participants and data at play impact the length and degree to which this irrationality is perpetuated. This shift in behavior can be quantified using natural language processing or NLP to help understand the shifting narratives of the market. In our next paper we will dive into how we analyze news and earnings data using these techniques and the insights they provide.

[9] Eugene F. Fama, Efficient Capital Markets: A Review of Theory and Empirical Work

The passing of time provides perspective. We can read about the follies of the past and demur in awe of how foolish the people were of that time. It is irrational today to think that a tulip bulb was valued as much as a house in the 1600s at the peak of the tulip mania[10] or that AOL was worth $224 billion (or 23x price to sales) during the dotcom bubble (sold for $4.4 billion in 2015)[11]. Yet in 2021 the entire crypto space (ex. bitcoin) was worth $1.6 trillion on no sales[12] and Tesla peaked near 30x price to sales[13].

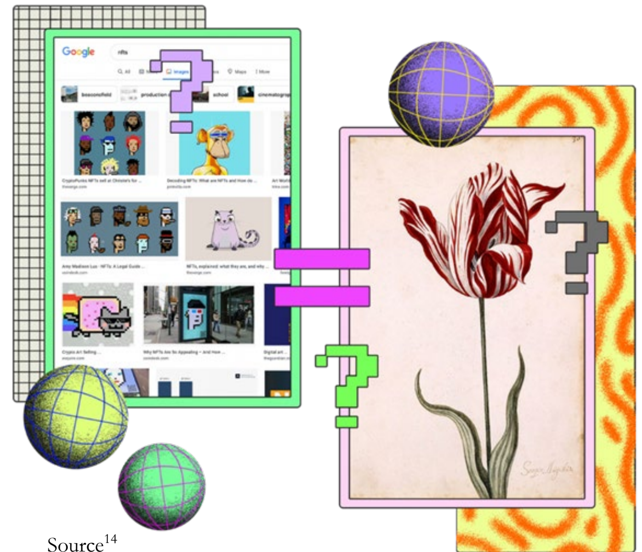
The same phenomenon that occurs during periods of peak greed occurs at the other end of the spectrum when peak fear drives companies and industries to low valuations. At the depth of COVID, oil companies were pricing in a world of complete alternative energy. The same thing happened at the nadir of the credit crisis when banks and homebuilding stocks were priced to extinction and at the bottom of the dotcom bust when technology was priced to obsolescence.

At the end of an irrational period and until the next crisis arises, the market and its participants return to an environment where the quality of the business matters just as much as the price paid. We are in one of those periods today. Investors who continue to long for the euphoric days where irrationality is at extremes will be left behind in this less irrational marketplace, particularly if rates remain at more elevated levels.

Bob Dylan summed it up perfectly in his 1964 album "A Times They Are a-Changin". The interest rate waters we are all wading in have increased considerably over the past year. As investors, we better start swimming to areas of quality or get caught sinking like a stone for the times they are a-changin.

Come gather 'round people, wherever you roam
And admit that the waters around you have grown
And accept it that soon you'll be drenched to the bone
If your time to you is worth saving
Then you better start swimmin' or you'll sink like a stone
For the times, they are a-changin'

-Bob Dylan: A Times They Are a-Changin



Source[14]

Our brief look at quality over the past six decades leaves us with the following conclusions:

1. We are now in the initial stages of an investing environment where both value and quality will matter, particularly coming out of a euphoric period like the one just ended.

2. Quality works best between market extremes and adds alpha to a value portfolio overtime. This dynamic comes at a cost during the initial phases of a recovery after fear has paralyzed the market (the junk rally). An emphasis on value over quality during these periods provides better upside participation.

3. Applying tools to capture the narrative and sentiment of the market can help in navigating periods of extreme fear and greed across markets and within industries. Like value, quality and momentum, these tools are more arrows in our quiver to navigate the behavioral biases of the market which we will discuss in greater detail in our next thought piece: *The Narrative Machine & You*

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[10] https://penelope.uchicago.edu/~grout/encyclopaedia_romana/aconite/semperaugustus.html

[11] https://qz.com/403266/by-the-numbers-aol-then-and-now

[12] https://coinmarketcap.com/charts/

[13] FactSet

[14] https://thirst.sg/put-my-verse-into-the-meta-this-christian-artist-is-using-nfts-to-spread-the-gospel/

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Foundry Partners, LLC, is a boutique asset management company that specializes in active management. Established in September of 2012, the company officially began managing assets in February 2013. The firm originated after its founders, former Fifth Third Asset Management Employees, acquired the growth and value products/assets from Fifth Third Asset Management, Inc. As part of Foundry's long term plan to grow both organically and strategic acquisition, Foundry Partners added to its Cleveland office with the acquisition of the Small and Mid-Cap Value team (and assets) from Dreman Value Management. This was followed by acquiring growth manager, Arbor Capital Management in Minneapolis. As part of each transaction, the accompanying portfolio management teams transitioned over to Foundry Partners.

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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