

# Small Value

From Verdad on Aug. 22:

## The Size Factor

*Small caps are trading at the steepest discount to large caps in decades*

By: Dan Rasmussen, Brian Chingono, & Nick Schmitz

Over the past 50 years, small-cap stocks have returned, on average, about 2% per year more than large-cap stocks, according to Ken French's data. The inclusion of the small-cap factor to help better explain stock movements was one of Nobel Prize-winner Eugene Fama's biggest early breakthroughs.

This higher return, though, came with higher volatility. Over the past 50 years, large-cap stocks have had an annualized monthly volatility of 15% versus 21% for small caps, according to Ken French's data.

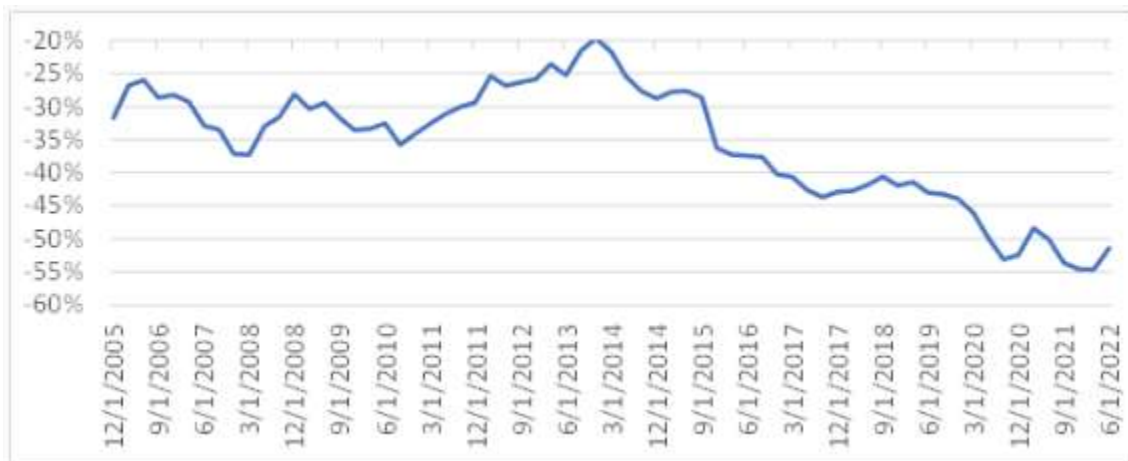
Smaller companies have had higher bankruptcy risk (about 18% higher). They also tend to be more sensitive to economic conditions and, as a result of lower trading liquidity, experience bigger price swings. In theory, investors should be compensated for taking on these incremental risks.

But recently, investors in small-cap stocks have experienced heightened volatility but lower returns. Over the last five years, the S&P 500 large-cap index has had an annualized return of 14% with an annualized standard deviation of 21%, while the S&P 600 small-cap index has had an annualized return of 10% with an annualized standard deviation of 26%, meaning that small-cap investors got roughly half the return per unit of volatility as large-cap investors. ...

In fact, betting on Fama's famed size factor has been a losing bet for over a decade. And small caps have had two periods—first during COVID in 2020 and then again this year—when they have lagged large caps by more than 20%. ...

Small caps have underperformed in about 1 in 4 decades historically. ...

**Figure 3: Discount of the S&P 600 to S&P 500 on EV/Sales**



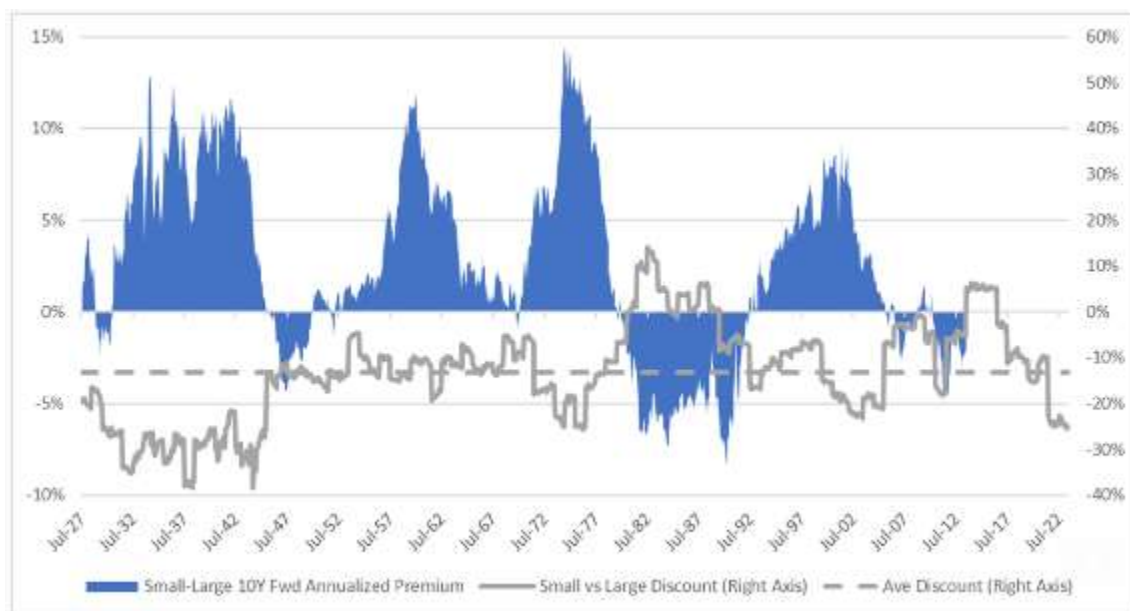
Source: Capital IQ

This specific horizon of underperformance has been accompanied by deeper and deeper relative discount for small caps versus large caps, the deepest in 20 years. The [above](#) chart compares the valuation of the S&P 600 small-cap index to the S&P 500 large-cap index on the ratio of enterprise value to sales.

And we saw the same trajectory across six other valuation ratios. No matter how one measures it, the small cap discount compared to large caps is deeper today than it was at the start of this period of underperformance.

To put this in a broader context, we show below the historical discounts and (rare) premiums small caps have traded at relative to large caps since 1926. We also include the 10-year forward relative returns to small caps versus large caps at each entry price discount for the time series.

**Figure 4: Small Cap Relative Discount and 10Y FWD Relative Returns**



*Source: Ken French data library. Discounts calculated on P/B for the 2x3 portfolios.*

According to the Ken French data, there were only two periods in the last ~100 years when small caps cost more than large caps: the 1980s and just before this period of small cap underperformance. Small caps typically did poorly compared to large caps when they were more expensive. Conversely, as discounts widened to below the historical relative death rate for small caps (~18%), the relative premium to small caps in the next decade generally increased.

Perhaps the good news for investors today is that as small cap underperformed of late and the discounts widened to levels not seen in about 50 years, expected relative returns going forward may have increased yet again.

Cliff Asness has written extensively about the widening gap between the valuation of cheap stocks and expensive stocks, which surpassed 1999-level highs in 2020 only to compress and then widen out again this summer. The sharp widening of the value spread over the past few years has coincided with a sharp widening of the small-cap discount, dealing a double blow to small-cap value investors like us.

But, over the full period since 1963, small-cap value has been by far the best-performing corner of the equity markets, according to Ken French's data. And this relationship has been consistent across geographies, as shown in the figure below.

**Figure 5: Long-Term Annualized Returns across Market Segments**

United States: 1963 - 2022			Developed International: 1990 - 2022				
	Value	Neutral	Growth		Value	Neutral	Growth
Large	12.1%	10.3%	10.2%	Large	5.9%	6.1%	4.0%
Small	15.2%	13.6%	8.4%	Small	8.5%	5.8%	2.4%

Source: Ken French data library

Overall, these trailing relative returns to small caps (even over the long horizon we've seen of late) would not have been a good reason to switch investment styles in the long history of markets. When accompanied by lower entry prices, they were typically times to stay the course or add, for those market participants with the ability to invest that way.

The other possibility is that something has structurally changed with small caps relative to large caps. It's possible, but we doubt it. We spent a significant amount of time in 2018/19 and early 2020 addressing the myriad hypotheses claiming the demise of the value factor for structural reasons after a similar horizon of underperformance ending in a brutal relative drawdown. Then as now, we've found the most relevant factor for explaining the past and making long-horizon forecasts about the very uncertain future seems to have been changes in the entry price.

From Morningstar:

## Why Indexing Small-Growth Stocks Hasn't Worked

Bad luck is ~~only half~~ **not** the reason.

**John Rekenthaler**

Jan 14, 2022

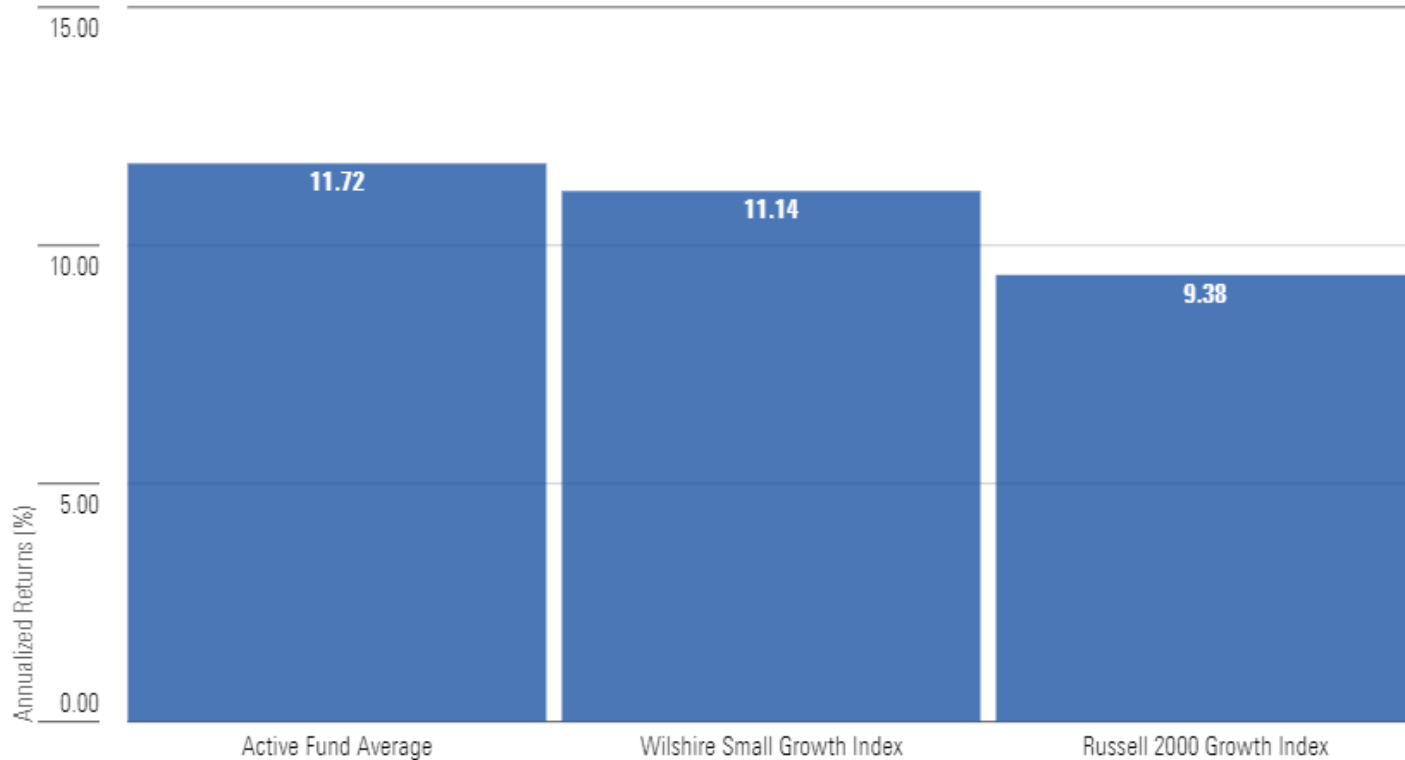
### A Notable Exception

It's an axiom of index investing that the practice uniformly succeeds, if given enough time. The belief is sound. For example, although emerging markets are commonly thought to be relatively inefficient, and thus fertile ground for active management, the MSCI Emerging Markets Index has outgained the average diversified emerging-markets stock fund over the past 15 years.

However, that claim has not held for U.S. small-growth stocks--at least not since Jimmy Carter's presidency. For the 42 years from January 1980 through December 2021, the two small-growth indexes (from Russell and Wilshire) that have sufficiently long histories have trailed the average actively run small-growth fund.

This result is not affected by survivorship bias. Frequently, fund averages are overstated because they include only the funds that operated throughout the period, overlooking the deadbeats that perished along the way. This column's calculation avoids that problem, as it uses monthly figures, which contain every small-growth fund that existed during those months. Thus, the chart accurately reflects shareholders' experiences.

**Exhibit 1** Small-Growth Returns (Annualized Returns, January 1980-December 2021)



Source: Morningstar Direct

### **Style Impurity**

Small-growth indexes have disappointed because small-growth companies have disappointed. This statement initially seems senseless. When discussing the relative performance of small-growth stocks, why bring up the rest of the stock market? However, in this instance, relative outcomes very much matter, because they highlight a key difference between indexes and active mutual funds: single-mindedness of purpose.

An index consists solely of securities that match its label. Every holding within the Wilshire U.S. Small Growth Total Market Index is a small-growth stock, as the company defines the term. If it were not, Wilshire would move it elsewhere. The same applies to other index providers. Their businesses depend upon delivering exactly what they declare. Should they stray from that promise, their customers will go elsewhere.

Mutual funds invest otherwise. Funds that are called “small growth” routinely invest in other styles, either because their managers fancy stocks that lie outside their funds’ putative boundaries, or because they retain positions that once fit the small-growth description but no longer qualify. Either way, actively run small-growth funds are less style-pure than their indexed competitors. **Unmentioned is the fact that Active Fund managers are paid to select the best stocks within their "boundaries". If you divide the small cap universe between value, and growth based on one or more valuation metrics, the "junk" tends to end up with the so called growth stocks, which the Active Fund managers aren't compelled to invest in. Those "junk" stocks that survive tend to remain small caps, which is why indexing works better with larger cap stocks.**

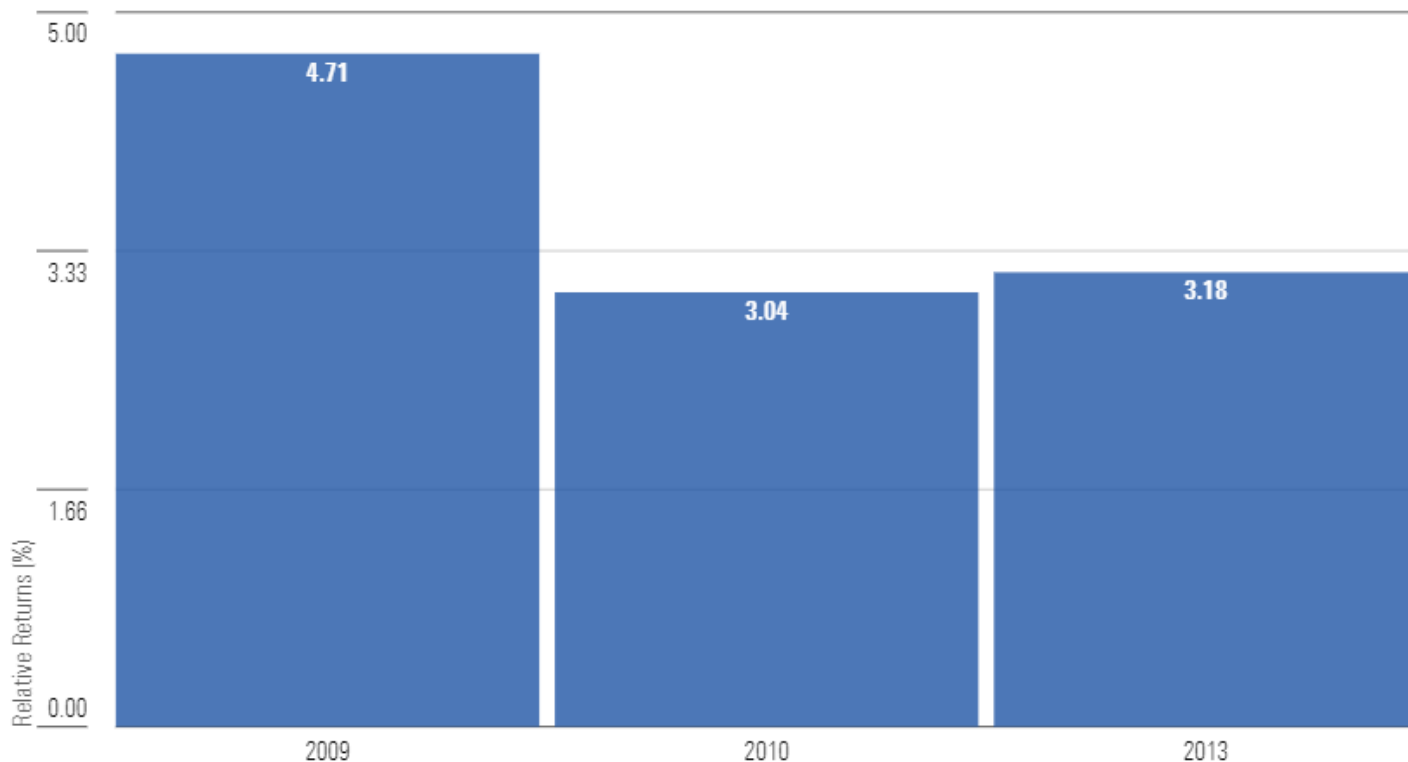
That impurity has helped active funds, as small-growth stocks were the lowest-returning sector of the U.S. stock market from 1980 through 2021. (Their risk-adjusted performance was even worse, as they also were the most volatile.) By diversifying outside their theoretical boundaries, small-growth fund managers were able to beat their benchmarks, even though their funds tended to be costly.

### Considering the Reverse

If small-growth stocks were to thrive, rather than flail, this condition would reverse. **Exhibit 2** illustrates the point. It compares the average return of the two previously mentioned indexes (the Russell 2000 Growth and Wilshire U.S. Small-Cap Growth Total Market indexes) against that of active small-growth funds, during the three most recent years when small-growth was the top-performing corner of the [Morningstar Style Box](#). A positive figure indicates that indexes bested the funds.

That they did. The indexes thrashed the active funds all three times. As each of those years was a bull market, the indexes benefited by being fully invested. But the cash drag cost funds only about 1.5 percentage points of return. The rest of index funds’ advantage owed to their style purity. When investing in the strongest section of

**Exhibit 2** When the Indexes Succeed (Average of Russell and Wilshire Indexes vs. Small-Growth Funds Average)



the marketplace, diversification offers no benefit.

The moral of this story, therefore, is not that small-company growth indexing is intrinsically flawed. Had small-growth stocks posted the strongest post-1980 returns rather than the weakest, small-company growth indexing would be celebrated. The sector was simply in the wrong place at the wrong time. Indexing usually wins--but not always. The strategy struggles to succeed when applied to the market's laggards.

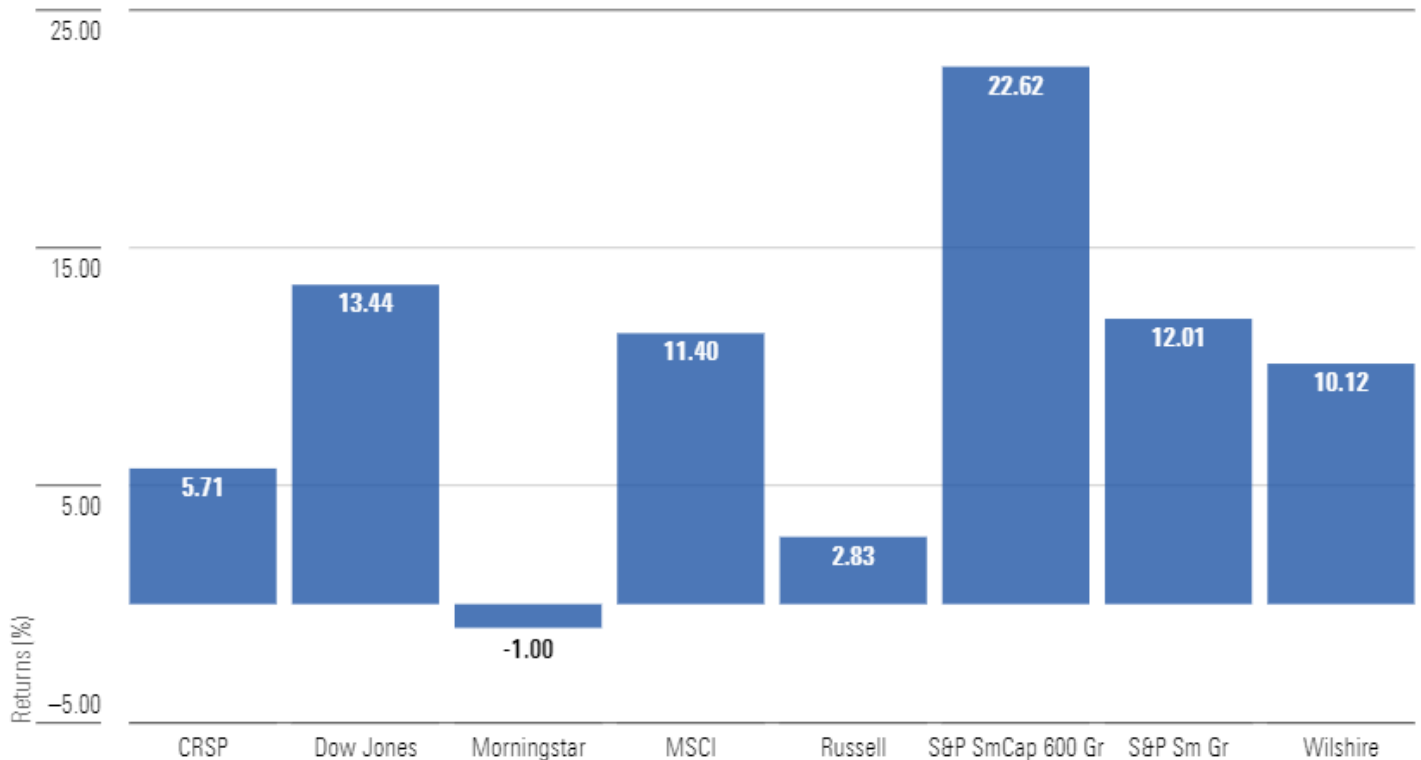
### The Second Drawback

Regrettably, small-growth indexes suffer from more than mere bad luck. They have an additional problem that cannot be solved by a small-growth bull market: inconsistency. One large-blend index is very much like another; their returns rarely vary by more than a couple of percentage points. Not so with small-growth stock indexes. One is a terrier, another a golden retriever, a third a beagle. As a result, investing in a small-growth index is not easier than buying an active fund.

For example, consider the 2021 results for eight small-growth indexes. (The index field has expanded since 1980.) As shown in Exhibit 3, their returns span 23 percentage points, ranging from negative 1% for the Morningstar Small Growth Index--which had the highest gain among the group during the previous year--to almost 23% for the S&P SmallCap 600 Growth Index. Note that S&P offers two such indexes, and even they diverged by more than 10 percentage points.

Understanding why those indexes performed as they did requires a great deal of research. (Not really.) I devoted two hours to the task, with little to show for my efforts. In other words, **most** investors in small-growth indexes are almost certainly flying blind. If their index fund were to sharply trail rival index funds--or, for that matter, the typical active fund--they are unlikely to know why. Nor can they be expected to discern why their fund succeeded, should it lead the index-fund rankings. ...

Exhibit 3 A Very Mixed Bag (2021 Small-Growth Index Returns)



Source: Morningstar Direct

The reason that the S&P SmCap 600 has historically outperformed the other indexes in Exhibit 3 is that the stocks that comprise the S&P 600 have to be profitable, a Quality Factor. This is why, as we have repeatedly shared, the S&P 600 (IJR) has outperformed the Russell 2000 (IWM) since inception, as shown as of Friday's close by Morningstar's chart:

It is also important to note, once again, that when you eliminate most of the "junk" by applying a Quality Factor (profitability), Small Caps (IJR) have beaten Mid Caps (IJH), and both have trounced Large Caps (SPY):



## Wrapping Up

Indexing small-growth stocks isn't unwise. The reduced cost of index funds is always helpful, and if small-growth stocks improve their relative fortunes, so will small-growth indexing. Neither, though, should indexing be regarded as the clearly superior approach. Small-growth indexes vary so widely that choosing one involves either guesswork or substantial research (once again, not really)--as with, for example, selecting an actively run fund.

*John Rekenhaller ([john.rekenhaller@morningstar.com](mailto:john.rekenhaller@morningstar.com)) has been researching the fund industry since 1988. He is now a columnist for Morningstar.com and a member of Morningstar's investment research department. John is quick to point out that while Morningstar typically agrees with the views of the Rekenhaller Report, his views are his own.*



From Verdad on Nov. 1st:

## The Great Equalizer

*What happens when value grows like growth?*

By Nick Schmitz

Small-cap deep-value stocks tend to suffer the worst in recessions, as macro-economic contractions hit smaller, cyclical firms harder and as financial market volatility tends to cause flight from illiquid assets, according to our research.

**Figure 1: Strategy Performance in Recessions and Recoveries (US 1963–2019)**

Period	Factor	Average Odds of Outperformance	Average Outperformance		
			All	Bubble	Shock to Fundamentals
Recession, Peak to Trough	Value	3 out of 6	11.0%	33.7%	-0.3%
	Low Volatility	5.5 out of 6	15.9%	23.5%	12.1%
	Quality	2.5 out of 6	2.8%	13.0%	-2.3%
	Small-Cap	2 out of 6	-2.7%	5.8%	-7.0%
	Momentum	3 out of 6	-2.2%	-0.3%	-3.1%
Recovery, 2 Yrs. After Trough	Value	5 out of 6	23.9%	24.6%	23.6%
	Low Volatility	1 out of 6	-7.1%	0.4%	-10.9%
	Quality	6 out of 6	22.4%	21.7%	22.8%
	Small-Cap	5.5 out of 6	22.0%	26.5%	19.8%
	Momentum	2 out of 6	-3.6%	-8.8%	-1.1%
Full Period, Peak to Recovery	Value	4.5 out of 6	33.8%	71.7%	14.9%
	Low Volatility	5.5 out of 6	19.4%	33.6%	12.2%
	Quality	5 out of 6	18.9%	33.2%	11.8%
	Small-Cap	4 out of 6	8.4%	23.2%	1.0%
	Momentum	1 out of 6	-4.8%	-5.4%	-4.6%

Source: Research Affiliates

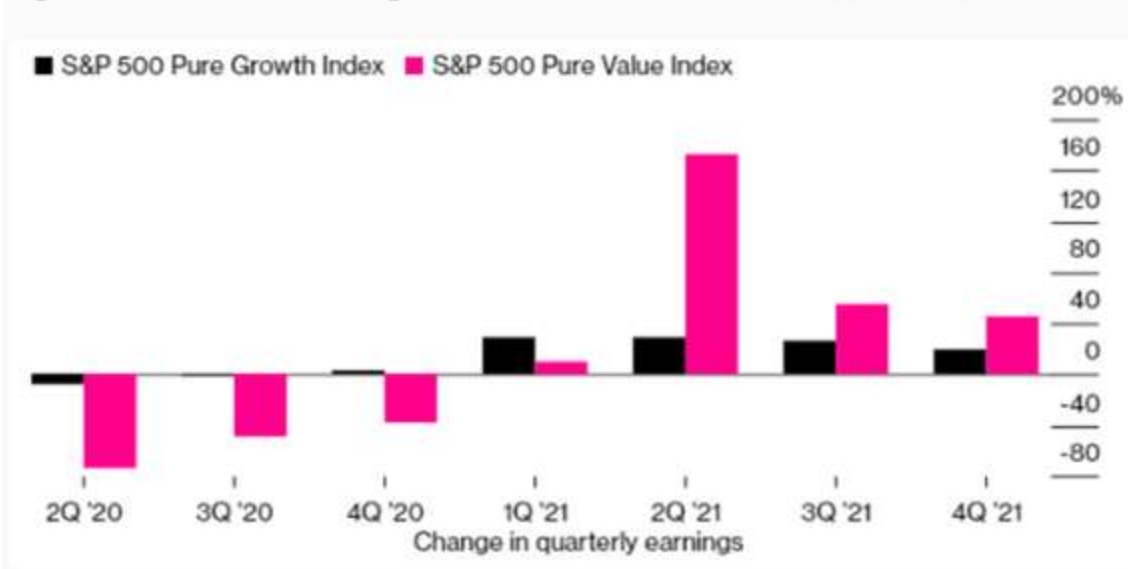
Yet, as we observed in our paper *Crisis Investing*, small-cap deep-value portfolios tend to perform the best coming out of recessions as the economy recovers and liquidity flows back in. A recent Research Affiliates paper found similar results looking at how factor portfolios performed in recessions and recoveries, **as shown above in Figure 1.**

Perhaps the most significant—and surprising—reason that value stocks outperform coming out of recessions is high earnings growth rates: growth rates that often exceed the growth in more expensive, glamour stocks. As Eugene Fama and Ken French noted back in 2000, “negative changes in earnings and extreme changes seem to reverse faster.”

And, from our perspective, this reversal drove value stocks to show earnings growth rates higher than growth stocks in recoveries from past recessions. The same pattern seems to be holding today. Our friends at Factor Investor recently posted the analysis in the figure below of quarterly earnings expectations for growth and value stocks within the US S&P 500 index.



Figure 2: S&P 500 Q2 Earnings Growth and Forward Estimates for Value and Growth



Source: Factor Investor, Bloomberg. Figures are estimates except for this year's second quarter.

In the United States, now that the Q2 earnings hit to value stocks has come out, analysts are expecting value stocks to grow earnings significantly more than growth stocks a year from now, according to the above figure.

We wanted to see if this phenomenon was a quirk of the last 70 years of US market history, so we performed a similar analysis in the biggest developed-world market outside of the US (Japan) for the data we have going back to the 1990s.

In Japan, during both the 2000 bubble and the 2008 crash, markets correctly anticipated that deep-value earnings would contract more severely than extreme-growth earnings in the short term. But deep-value stocks ended up growing earnings as fast as any other stocks in the long term.

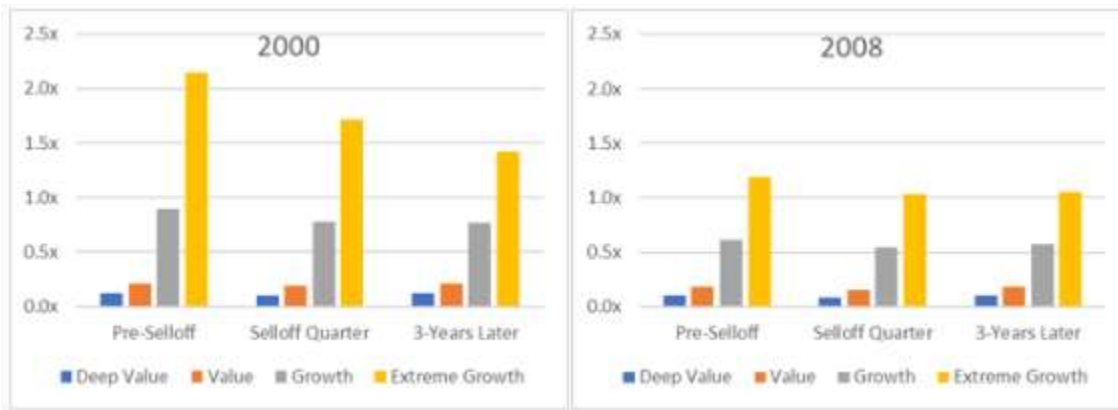
Figure 3: LTM EPS Growth before, during and after Recessions



Source: Capital IQ. All Japanese stocks above \$25M in market cap, excluding REITs and financials. Breakpoints for deep value to extreme growth are at the 10th, 50th and 90th percentile of market cap/revenue multiples for all stocks.

But, we noticed that for that same long-term EPS growth, deep-value investors paid 1/16th the amount per dollar of revenue in December of 2000 and 1/12th as much in December 2008 after markets first sold off.

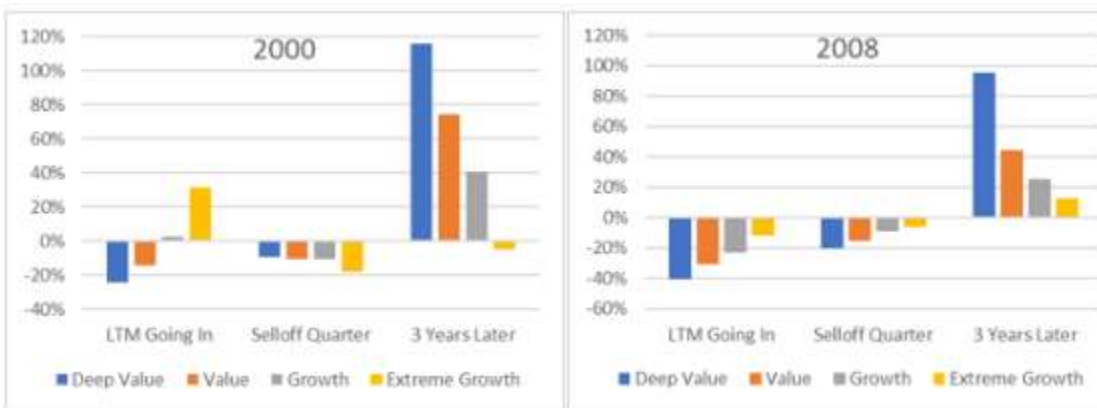
**Figure 4: Market Cap / LTM Revenue Multiple through Recessions**



Source: See Figure 3. Dec 2000 and Dec 2008 were the first major selloff quarters in Japan.

And the consequences for returns were very similar to what we saw in the United States. After markets had sold off, we calculated that deep value outperformed extreme growth by 121% and 83% over three years, in 2000 and 2008 respectively, as shown below.

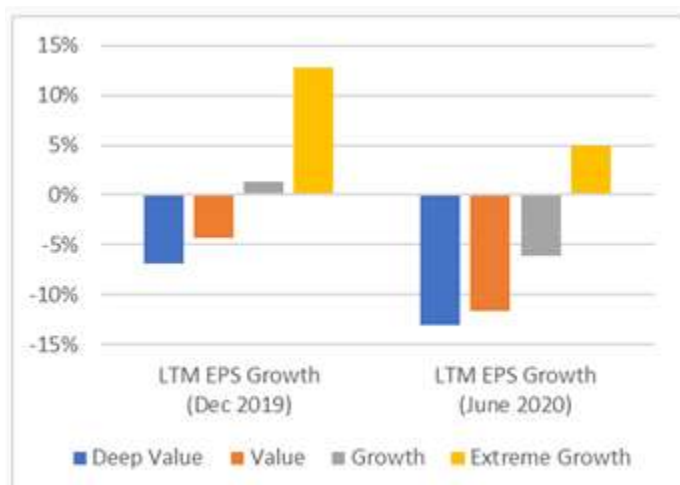
**Figure 5: Returns before, during and after Recessions**



Source: See Figure 3. Dec 2000 and Dec 2008 were the first major selloff quarters in Japan.

And while we don't have a crystal ball to confirm that the next three years of factor returns will approach what we have seen elsewhere, we can see that the last quarter's financial results look a lot like past recessionary contractions following a market selloff. Unsurprisingly, market participants have "correctly" priced in the short-term contraction for deep-value stock earnings compared to extreme-growth stocks.

**Figure 6: LTM EPS Growth by Stock Valuation**



*Source: See Figure 3.*

We're not sure what could be so different this time around that would invalidate Fama's 2000 observations about margin mean reversion. What is perhaps unique is that we have both a growth bubble and the first-quarter results of an economic contraction occurring simultaneously in the United States, Europe and Japan.

One need not believe that this global historical trend is explained by a behavioral fluke, short-termism or even by "just compensation" for the bumpy ride. This counter-cyclical deep-value strategy was closed to most sizable market participants at precisely the crisis moments when liquidity was prized the most within and across markets globally.

In the Japan examples above, the median extreme-growth stock was 15x larger than the median deep-value stock in 2000 and 10x larger in 2008: a welcome safe-haven of liquidity for larger allocators when global liquidity had dried up. Back then, deep-value stocks were very tight. With median market caps of \$73M and \$53M, respectively, it was easier for a camel to go through the eye of a needle than for a rich man to pursue the counter-cyclical deep-value strategies we described.

In our view, this is perhaps a more reassuring justification for why market participants seem to have left so much money on the table so consistently in the contractions of yesteryear and why they may be doing so again today. Despite all the unique causes, attributes and explanations of the particulars of each historical recession, these basic unifying conditions do not appear to have changed today.

## **The Great Equalizer Part II: Evidence from Europe**

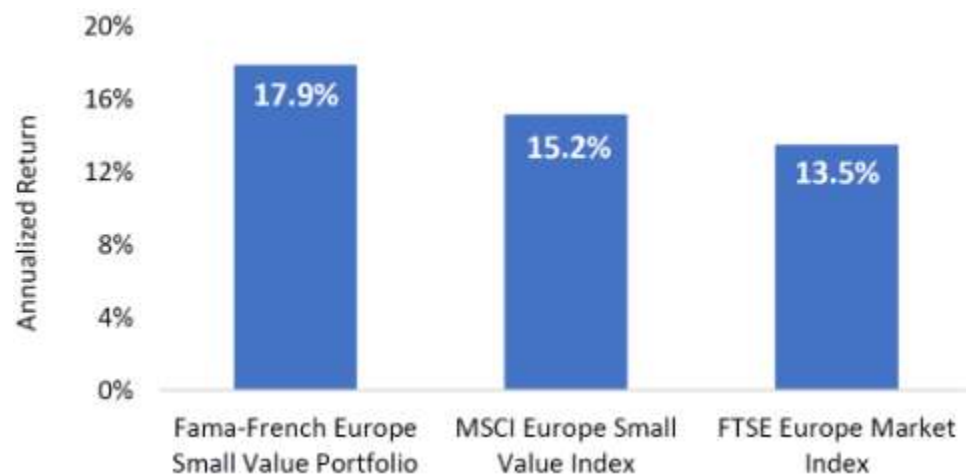
*Around this time last year (shown above), we asked "what happens when value grows like growth" coming out of a recession? A year later, European equities have provided an answer.*

By: Brian Chingono

The past two years have been a rollercoaster for investors, with the COVID drawdown in 1Q 2020, followed by a remarkable market recovery in the subsequent quarters. On the other side of this uncertain period, value stocks have come out ahead. Over the past two years, the MSCI Europe Small Value Index has compounded at a

15.2% annualized rate, outpacing the European market by 1.7 percentage points per year. The outperformance was even higher among deep-value companies that trade at cheaper valuations than the commercial index from MSCI. The Fama-French Europe Small Value Portfolio returned approximately 17.9% annualized over this period, outperforming the market by around 4.4 percentage points per year.

**Figure 1: Annualized Return of Small Value vs. the Market in Europe (Oct 1, 2019 – Sep 30, 2021)**

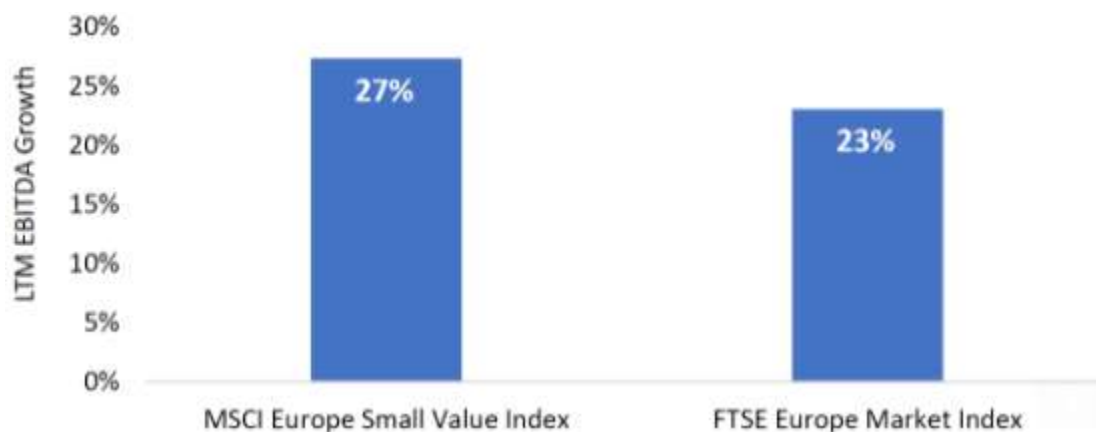


*Sources: Ken French data library, Capital IQ, MSCI, and FTSE Russell. Note: since the Fama-French portfolio returns are currently only available through August 2021, we impute the September 2021 return by assuming the same return as the MSCI Europe Small Value Index in that month. Conclusions are not sensitive to the imputation in this single month (the annualized return of the Fama-French portfolio would be 18.1% if we had assumed the market return instead in September). Throughout this article, the term “FTSE Europe Market Index” is an abbreviation for the FTSE Developed Europe All Cap Index.*

As we have written before, value investors earn a premium for staying the course. And we believe we’re still in the early innings of a gradual rotation toward value, given today’s historically wide valuation spreads. A key driver of those valuation spreads is the divergence in expectations about value stocks relative to the market. Investors typically expect lower earnings growth from value stocks compared to the large growth companies that dominate market indices. Yet coming out of recessions, value stocks often grow their earnings at a faster rate than their expensive peers, as cyclical value companies lead the recovery. This has been the case yet again in the most recent recovery, as small value stocks have grown their earnings at a higher rate than the market over the past year. Although the Fama-French index does not disclose underlying holdings, we can see the earnings picture by comparing the MSCI Europe Small Value Index against the FTSE Europe Market Index. Over the past year, European small value companies in the MSCI index grew their EBITDA by 27%, outpacing the market average of 23% earnings growth over the same period. This earnings outperformance is consistent with what we wrote at this time last year:

“Perhaps the most significant—and surprising—reason that value stocks outperform coming out of recessions is high earnings growth rates: growth rates that often exceed the growth in more expensive, glamour stocks.”

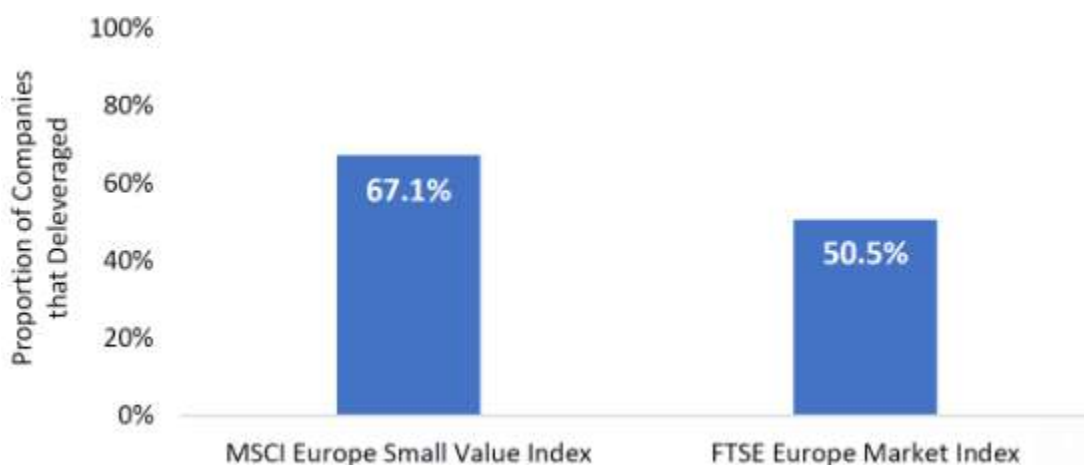
**Figure 2: European Earnings Growth over the Past Year (6/30/2021 vs. 6/30/2020)**



*Sources: Capital IQ, MSCI, and FTSE Russell*

Not only did small value stocks outperform the market on earnings growth, they also deleveraged at a higher rate. Figure 3 shows the proportion of leveraged companies that paid down some debt over the past year. Within the small value index, two-thirds of the leveraged companies paid down debt over the past 12 months. On the other hand, only about half of the levered companies in the market index paid down debt.

**Figure 3: Deleveraging in Europe over the Past Year (6/30/2021 vs. 6/30/2020)**



*Sources: Capital IQ, MSCI, and FTSE Russell*

As we have written previously, deleveraging is predictable and contributes positively to returns. ... going forward, we believe the biggest contributor to small value returns will be a gradual narrowing of valuation spreads from the extremely wide levels recorded last year. In 2020, the spread in valuations between cheap and expensive companies in Europe reached its widest level on record since 1975. As these valuation spreads gradually revert to their historical averages, we believe that mean reversion will provide a powerful tailwind for small value returns in Europe over the next decade.