Cliff's Perspective

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We Are Not Just Value!
Except, You Know, When We Are…

July 12, 2022

Our systematic stock selection process is far from just "value." It wasn't just value back when we started AQR in 1998[1] and given many other additions to our process since then, it's even less "value" now. And yet from 2018-2020 for the bad and 2021-2022 for the good, our world has indeed been all about value. What gives?

Below is the rolling correlation[2] of a "carve out" of AQR's Absolute Return Portfolio's stock selection strategy (i.e., a proxy for our stock selection investment process)[3] with a backtest[4] of a simple global value strategy.[5] Both are designed to be market neutral and largely industry neutral.[6] The former goes long a diversified portfolio of global stocks favored by our process and short their disfavored counterparts. The latter does the same but using only a few value measures to decide the longs and shorts.[7]

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[1] Or when some of us started trading in 1994 at Goldman Sachs, or in academia when my dissertation was on combining value and momentum using data through 1990.

[2] The graph here looks at rolling 12-month 5-day overlapping correlations. I have tried many other reasonable versions and the story/picture is essentially the same. I've also tested a modified form of correlation that doesn't use the 12-month mean but the full-period mean (so it's not quite a correlation but removes what potentially is a confounding effect of radically changing rolling means). It also doesn't change the picture.

[3] We use a carve out to get the longest track record that we have available. Our experience actually goes back further. The core team that founded AQR traded quantitative stock selection strategies for years at Goldman Sachs before 1998—but you'll have to ask them for the returns :). Also, note that the text says "hypothetical" because the carve out is only the stock selection component of a live portfolio that also pursued other strategies.

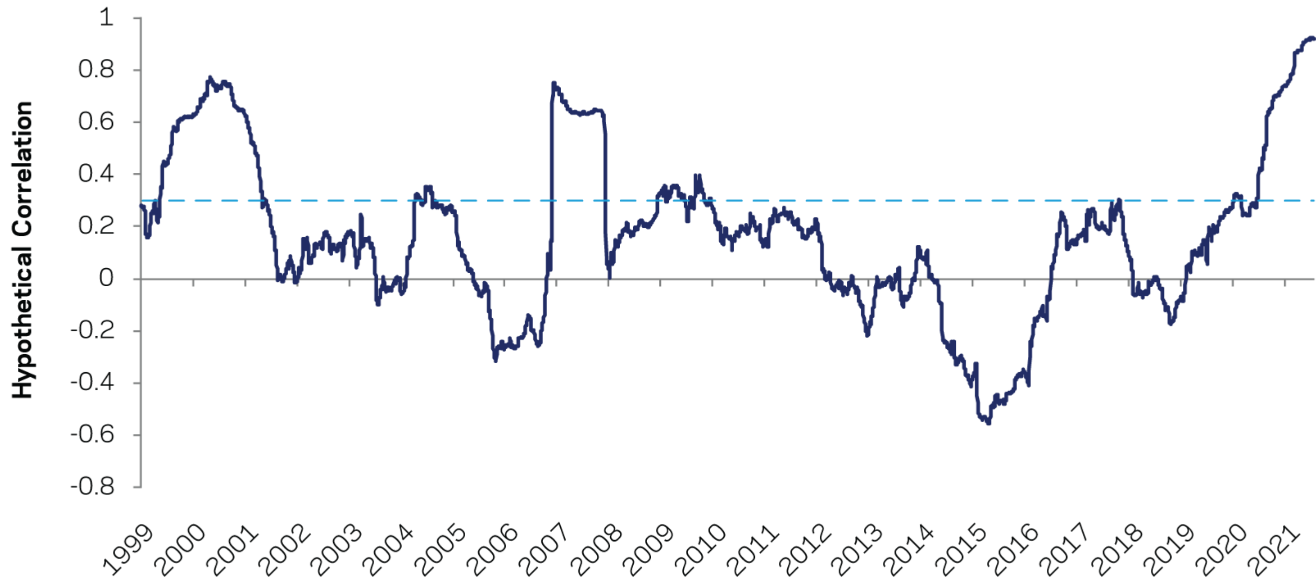
[4] It has to be a value backtest, as we haven't run a pure value strategy live over this time.

[5] Again, our actual process is not just pure value!

[6] That doesn't mean they always realize local short-term correlations of zero with the market, it just means that's the target. Full period they've indeed come in pretty close to the goal of market-neutrality. And as discussed in many earlier posts and above, our stock selection strategies focus less on industry views and more on within-industry opportunities (for better comparability and breadth).

[7] "The Absolute Return Portfolio's Stock Selection is a carve out of the daily return of the equity strategies in the AQR Absolute Return Portfolio. The hypothetical returns are net of transaction and financing costs, and gross of management and performance fees. "Value Backtest" is a hypothetical AQR global industry-neutral value composite that includes five value measures: book-to-price, earnings-to-price, forecast earnings-to-price, sales-to-enterprise value, and cash flow-to-enterprise value. The portfolio is beta-neutral through time and targets a constant amount of volatility. To construct industry-neutrality, the hypothetical portfolio is constructed by comparing the value measures within each industry. The risk models used are proprietary equity risk models. Hypothetical data has inherent limitations, some of which are listed in the Disclosures. For illustrative purposes only and not representative of an actual portfolio AQR currently manages. Please read the Disclosures for important information.

Hypothetical Correlation of Absolute Return Portfolio's Stock Selection and Value Backtest[8] (8/31/1998 - 3/31/2022)



Source: AQR. Correlation is 12-month rolling, using 5 day overlapping returns. For illustrative purposes only and not representative of an actual portfolio AQR currently manages. This hypothetical data does not reflect the deduction of any management or performance fees. See detailed explanation in the body of this article, and additional disclosures at the end.

Over the whole approximately 24 years[9] the correlation of our full hypothetical strategy with pure value has been +0.30. Frankly, without being able to back it up specifically, this strikes me as pretty reasonable. Value is an important part of our process in steady state, but not a majority of it, and parts of the rest (notably momentum but also quality) are negatively correlated with value. So you would expect positive correlation but wouldn't expect anything close to 1.0.[10]

But over shorter periods (here I look at rolling years[11]) the degree to which we look like value has varied a lot. We've peaked around or over 0.8 three times and troughed lower than -0.5 (yes, even with value being an important part of the process, if most of the rest of the process disagrees with it, we can come in negative).

The current 0.9 reflects a few things:

1. Our extra tilt to value right now[12]
2. Value not disagreeing with the other factors, but on net trading very correlated to them compared to history (said another way, it seems the bubble fans don't just like expensive names—they like expensive, high-beta, low-quality names)
3. Value as a standalone factor trading more volatile lately than the others (though all are elevated versus long-term norms)

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[8] Note, the title says "hypothetical" because the carve out is only the stock selection component of a live portfolio that also pursued other strategies, and the value backtest is by definition hypothetical.

[9] My God I can now start saying "about a quarter of a century" – that sounds so much longer.

[10] One complication is that by using live results, I'm also analyzing a process that has changed (I hope improved!) over time. Still, the ups and downs seem reasonably similar over time, which makes me think this exercise is valid.

[11] Though I've looked at shorter and longer rolling periods and found very similar results.

[12] This in turn comes both from the rare discretionary tilt to value we have on, and in some portfolios a systematic (always on, but often with no view) value spread + momentum model that also strongly favors value now.

This currently high correlation is conscious and we believe reflects the incredible 1-3 year tactical opportunity. But, when (and I do mean when) this period is over, I expect to return to our more sedate 0.3ish correlation to value for a long, long time.

With that said, looking at the extremes is instructive.

Quant Flash Crash

First let's look at the short spike[13] in early August 2007. That month saw what amounted to a quant "flash crash." Pretty much any factor used by quantitative investors suffered very large losses over a few days and then pretty much made it all back over the next few weeks. You get a very high correlation to value over rolling periods that include that period, as value was no different from the other factors. This will be a theme. We are more correlated to value when the other factors in our process (e.g., momentum, low versus high beta, quality, quite a few others) are more correlated to value.[14] August 2007 is interesting for a lot of reasons, but not so much for the point of this piece. Moving on to the next extreme…

Long Periods of Low to Negative Correlation with Value

Next let's look at the biggest negatives. From around 2012 to somewhere around 2015-2016, the rolling correlation was almost always negative, hitting a nadir of almost -0.6 in early 2015. This is kind of interesting. We've noted many times that from the Global Financial Crisis (GFC) to about late 2020, value's performance was somewhere between subpar and terrible.[15] That's a long time! Yet from the GFC through 2017, despite value's troubles, our process performed well. This is because the other factors we trade were both negatively correlated with value (often making the whole process negatively correlated with value) and these non-value parts delivered strong positive returns.[16]

I think I have a useful way to describe value's tough 2009-2017[17] and I think it's consistent with us doing well over this same period. In a nutshell: many forms of value "deserved to lose." By "deserved" I mean the expensive companies grew earnings (relative to the cheap) more than what was priced in. Now, we believe value "works"[18] over the long-term precisely because this is the exception, not the rule (i.e., more often than not, the expensive companies deserve to be more expensive but by less than what the market is pricing in, and that's how value on average wins).s[19,20]

Another way to say "deserved to lose" is "value lost for rational reasons." In contrast—and staying with this oversimplified lexicon—"irrational reasons" are those based simply on large relative multiple expansion for expensive versus cheap without any fundamental victory behind it, and ending at unreasonable valuation

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[13] It lasted exactly a year until the offending few days-weeks rolled out of the annual window.

[14] How the other factors are moving is the main driver of these changing full-process correlations with value over time. But a secondary one is relative volatility. Even if correlations are entirely at their long-term average, if the standalone value factor is trading more volatile than the other factors, it will drive more of the overall process for a while (and vice versa).

[15] Our version of value (we generally measure cheap and expensive against a stock's own industry or other method of determining peers; we diversify across many measures of value, most notably not being just price-to-book, which is a valid value factor but gets way too much attention in the literature and business) underperformed its norm over this period (post GFC through 2017) but didn't really lose. More traditional measures of value lost, some in a big way. Don't worry, I'm not just bragging, as during the value crash of 2018-2020 ours offered no place to hide!

[16] Correlation and average return are related here but don't necessarily have to tell exactly the same story (though they seem to here). Moreover, a diversified style portfolio may perform especially well or poorly amid positive or negative correlations to value.

[17] Again, it varied by value methodology but even measures of value that held up better still underperformed their historical norms.

[18] The scare quotes around "works" is to remind that I mean "works on average over the long term and is a good addition to a portfolio." As I've said many times, if your car worked at the same daily frequency as value, you'd fire your mechanic.

[19] That is, the market tends to pay too little/much for cheap/expensive companies, but it does not assert that the cheap companies shouldn't be at all cheap – everything has a price.

[20] But "on average" is just that. Sometimes you don't get the average even over some reasonably long periods. In such times the expensive companies turn out to be worth it (or more than worth it). Given that value spreads (see here or many of my blog entries for the last few years for a primer on value spreads) were not very high over this period (that's a post-2017 phenomenon), this was far more possible then than it is today. Going forward from here, expensive stocks versus cheap stocks have to overcome a far bigger valuation challenge.

differentials. A more mild way to put it than "irrational" might be "it wasn't fundamentals at all, rather it was the 'taste' for expensive versus cheap stocks that changed."

In 2010-2017 tastes didn't change much (value spreads were relatively stable and normal). In fact, very late in that period (up to 2017) I was still taking the other side versus those value managers who said investors should buy or overweight value ASAP as it's so beaten up. They were looking at realized returns, not the current state of valuations; and if realized returns are justified by improving relative fundamentals for the expensive stocks, then the valuation spread doesn't get crazy. Despite losing (or our versions underperforming their norm) from 2010-2017, value just didn't look especially cheap versus growth.[21] Most of the time when you lose for a long while, you get cheaper (at least in reasonably slow turnover strategies like value). But not every time.[22] Again, if you lose on the fundamentals coming in better for your shorts versus the longs (compared to what was priced in), you lost, but you ain't necessarily cheaper going forward. That was the case, as I saw it, in 2017.

Now, again, one thing of more than a little interest to us was that despite value's poor (or desultory for us) performance 2010-2017, it was, in general, a very strong period for our stock selection process. That's essentially the point of this note. We ain't all value, not by a long shot. In particular, when value loses for what I have been calling "rational reasons," the rest of our process has historically done a pretty nice job of picking up for it. I think that's intuitive. Much of the rest of our process (e.g., fundamental and maybe price momentum, quality, even low-risk investing, and other more proprietary measures) are uncorrelated or negatively correlated with value and collectively have great hope of picking up the "rational reasons" for value's losses (i.e., they like the strong winning companies that value is eschewing at these times). Basically, we don't fear a value loss, short or long term, if it's fundamentally justified. It seems the rest of our process picks that up pretty well.

Irrational[23] Value Crashes

This brings us to 2018-2020.[24] I've been putting this one off for last as it's painful! But here it goes. Over this period value was obliterated and the other factors didn't help (or didn't help nearly enough). What was different? Well, to continue my taxonomy from above, we believe this was an "irrational loss" for value. Unlike 2009-2017, the fundamentals didn't come in worse than what was priced in for value versus growth (actually a bit the opposite), but the multiples that people were willing to pay for expensive versus cheap just exploded. It turns out, and we knew this from basic logic and the 1999-2000 experience, that when value loses for irrational reasons, we suffer.[25] Pretty much only price momentum has great hope in such a period, and there's a limit to how much of that anyone, even someone who wrote a dissertation showing momentum works thirty freaking years ago, is willing to have in a process.[26] Not only do we suffer but we look a lot more like value during these periods (hence the very high correlations in the graph above during 1999-2000 and its aftermath and then 2018-today). That makes sense. Value is dying and the other factors are not fighting it[27] because value is not dying for the rational reasons these factors try to pick up.

Basically I just said that's there's a type of market we know our process hates (irrational bubble losses for value—not rational losses for value). Now, if our process works over the long term, it's not a tragedy if there's one type of

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[21] It was the last thing I was to be right about for another three years :). And, of course, if I was really right I would've not just screamed "it's not time to overweight value as it's not relatively cheap!" but rather "short the heck out of value!" I don't know what I would've used to make that forecast, but it would've worked out well.

[22] I like to use a very simplistic example to bring this home. If you bought a stock because it had a low P/E (don't buy a single stock on a single value measure!) and it then falls 50%, most of the time it likely got cheaper (on your measure). But if this time the earnings also fell 75%, it actually got doubly expensive. Again, more often than not cheapening does follow losing and richening follows winning. But not all the time. If the fundamentals change enough it can break this link.

[23] Somewhere I know Gene Fama is weeping over me using this word and I feel bad…

[24] And 1999-2000 though I'm not going to explicitly discuss the tech bubble as the discussion would be so similar to 2018-2020 – they ain't the same but they rhyme.

[25] Though the degree of value suffering was certainly beyond what I thought I'd see in my career! This is mostly the result of two pretty bad years (2018-2019) followed by a global pandemic that people (ex post wrongly) decided would be the end of value stocks and all you needed was Tesla and Zoom. I'm not sure what lesson to take away from that. When you have two bad years, it's bad to have a global pandemic not seen since 1918 hit that the market wrongly decides you're short! (Note: An investment in the above named security does not suggest the achievement of a profit or loss, realized or unrealized).

[26] Momentum also offers the hope, maybe even the expectation, of picking up irrational moves but not the certainty. Even if momentum (as we believe) works on average it is more sensitive to "the path" than value. That is, in a period of irrational trends you might rationally expect momentum to help (and I'd agree), but if there's much more or less whipsaw along the way, it could help much less or more than you'd have thought.

[27] In contrast, the other factors are agreeing with value!

market it suffers in. In fact that's probably pretty normal for any investment process. Few work in all possible environments and few to none that are available at institutional scale. Going further, both in 1999-2000 and 2018-2020 the suffering occurred in very bullish markets where people were generally pretty happy with their other investments, and then our process came back (well more than all the way in 2000-2002 and on the way, we hope, in 2021-2022) when our investors were suffering elsewhere. That's not a terrible property to have long term (even if it makes the bubble periods, when everyone else is happy but thinks you're an idiot, quite difficult)!

But it does beg the question, can we find something to add to the process that fixes this. The short answer is probably not. Finding something that goes up when AQR is suffering in an irrational value bubble (again, rational losses for value are OK!) isn't hard. You can short value, or, if you're feeling cheeky, you could find a way to short AQR. But I do not recommend either over the long term! An actual holy grail for us would be finding factors that do very well in an irrational loss for value and make money on average over the long term (the prior two examples nail the first part but get the second part tragically backwards). We will never stop looking, and we do think there are a few factors with some potential,[28] but mostly we don't think this holy grail exists. We think we have a great long-term process (shocking that we think that I know) that tends to suffer when the world is irrationally happy and then helps when it has its inevitable hangover. If we ever find a way to ameliorate the suffering without reducing the long-term performance, we'll be very excited – but until then we'll continue to work tirelessly on improvements that we think are more realistic and sustainable!

Summary

Whew, OK that was a lot. Basically, to sum up, value is an important part of our process but not usually a dominant part. When it has been dominant it has usually been in bubble periods of irrational losses for value (and in their more pleasant aftermaths). Furthermore, these losses have tended to be when most traditional portfolios were doing great and the large gains that followed when traditional portfolios were suffering. Over normal (non-bubble) periods, value can lose (or fail to deliver) for long stretches, and we can do quite well if it's driven by fundamentals.

But, once every twenty years or so,[29] when value loses for terrifically irrational reasons, we do strap on our armor and become value warriors (you see that in performance and in our rolling correlation to value). We think round trip that adds returns (it did in 1999-2000 when we made more in 2000-2002 than the prior losses, and it's off to a good start for 2021-2022 but still has a way to go before I can say that again). We think in non-bubble times (i.e., most of the time!) we look like a process that's pretty themeless with very nice return/risk/correlation characteristics. We think the combination of these two[30] states of the world leads to a great addition to most portfolios.[31] But we know it means there will be some years of great pain along the way.[32] We're still working on the holy grail that would deliver the long-term positives without having to suffer along the way, but I'm not holding my breath!

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[28] E.g., there are some factors having to do with R&D expenditures (you like firms with higher R&D scaled by some relevant metric) that seem to do well long term and do well in bubbles. But there are very few factors like this, and they do not have nearly the cross-market and out-of-sample corroboration of many of our other factors.

[29] Based on our real life experience since 1994, so "once every 20 years" is only based on like 28 years of live data! Still, in real life we have indeed become value warriors pretty rarely but then pretty dramatically.

[30] Most of the time pretty themeless but value warriors every 20 years when warranted.

[31] A great addition both from the themeless alpha of the normal process most of the time and from the round-trip value warrior periods. Again, these value jihads mostly occur when we suffer while the rest of the portfolio is peachy keen (or more so, whatever's better than peachy keen in a bubble). In our one round-trip example (1999-2000 then 2000-2002) it added return in total, and is at least healthily on its way to doing so again (not yet though! – value spreads are still crazy).

[32] Though, again, we think it took the market (kind of wrongly) deciding value was horribly on the wrong side of the worst global pandemic since 1918 to really make it excruciating.

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