Cliff's Perspective

Liquid Alt Ragnarök? (Condensed)

September 17, 2018

As promised, for those looking for a more manageable read, what follows here is the "medium" length version of my recent Cliff's Perspective.

Introduction

If you can find diversifying, positive expected return liquid alts, then you can materially improve a portfolio. I make no claims that this is an easy thing to do, and in this piece I do not offer a general defense of liquid alts as an investment category. But I believe the bar is not as high as many think. To add value to your portfolio, you don't need a strategy that never loses money. Liquid, sometimes well-known strategies, with attractive but realistic risk-adjusted returns are likely more important than "magic" strategies that (over?)promise much more.

Here, and in the fuller article in more detail, I address many of the common questions we receive from clients during challenging times. I consider specific hypotheses as to whether the recent returns are a harbinger of the future. Has the world changed such that these strategies are "broken"? Are they too crowded or costlier to trade now? I revisit the long-term evidence and the economic motivations behind our strategies. And finally, I acknowledge the difficulties that come with sticking with such strategies through tough times. Having said that, we think this is a big part of why they work to begin with and are sustainable going forward.

As tempting as it may be, we do not call for a quick miracle bounce-back. But, we do believe the case that adding some specific liquid alts, ones that are based on a gigantic amount of evidence and economic common sense and are truly "alt" (meaning very low correlation to traditional assets), remains as strong as ever, especially as compared to the current, quite expensive levels of traditional stock and bond markets.

Why Would You Want a Liquid Alt in the First Place and What Should Your Expectations Be?

You do not want a liquid alt because you're bearish on stocks or traditional assets. That kind of timing is difficult to do well. Plus, if you're convinced traditional assets are going to plummet, you want to be short, not "alternative." In other words, liquid alts are a "diversifier" not a "hedge." You should invest because you believe that it has a positive expected return and provides diversification versus everything else you're doing. If you can add an asset with a positive expected return that's not correlated to the rest of your portfolio, it makes your portfolio better.[1] You can achieve, for the same risk, a higher expected return, or for the same expected return, a lower risk (or improve both).

When it comes to assessing a strategy, the most popular measure of risk adjusted return is the investment's Sharpe ratio, which is the ratio of its arithmetic average excess return over cash divided by its volatility. However, it's far from perfect. For instance, it doesn't work well for non-normal distributions. Still, we think the Sharpe ratio is very often useful if care is taken to not apply it to highly non-normal processes.

To give some context, the Sharpe ratio of the US stock market from 1926 to mid-2018 is just over 0.4 (0.43 using monthly data). It's enough to make "stocks for the long-run" a very powerful argument, even if occasionally oversold. That's because if you stick with a 0.4 Sharpe ratio for the long-term it's very likely (though never certain) to work out for you.

Let's look at some statistics. Assuming you can create an investment process with a true 0.4 Sharpe ratio similar to the equity market, and assuming a normal distribution (which is a better assumption the longer your horizon), your chance of positive returns (over cash) for any given day is 51%. For any month, it's 55%. For any six-month period, 61%. For any year, 66%. For five years, 81%. For ten years, 90%. That sounds pretty great, no? It is. But there's also a 10% chance that the investment strategy you created is as good as investing in the stock market and yet you fail to make a dime over cash for a decade.

Still, the math would show, and basic common sense would agree, that finding an investment process you truly believe is as good as the stock market, yet not correlated to it, would be a pretty great thing. In that case you'd literally want to take as much risk in your new discovery as in stocks themselves. Now, few do this, and I'm not recommending it. For one thing, you must be able to stick with the strategy. When an "optimal" approach comes up with allocations you know you can't reach, I always recommend doing the amount you really believe you can stick with through a very bad period.

Even modest amounts of truly diversifying investments matter. The math says the first small move gets you more bang than the last small move. However, there is more to sizing these investments appropriately than what the math tells you (literally going to the "optimal" amount isn't always long-term optimal). Even if the math says you should invest X%, if X% is too painful to stick with when they don't

[1] The strategic case (let's call this a 10-year horizon) for this kind of investing may actually be stronger now as we believe the expected long-term prospective return on stocks and bonds is lower from today's high prices than in the past. Remember, we're having this discussion after an amazing bull market for stocks (US stocks, in particular).

work (and everything won't work for a while at some point), then X% is too much. But that doesn't make 0% the right answer either.[2]

Managers, particularly of alternatives, often strive for more than the Sharpe ratio of the market. For instance, across our various offerings we usually are striving for above a 0.5 Sharpe ratio for some strategies and up to perhaps near a 1.0 for others.[3] In our view, the investing world over-lionizes the quest for super-high Sharpe[4]; and, it greatly underappreciates the value of a more modest, but still impressive, risk-adjusted return that's truly diversifying to the rest of your portfolio.

In short, what shouldn't be arguable is that if you have really found a 0.5-1.0 Sharpe strategy with very low correlation to the rest of your portfolio, it's a wonderful thing.

So, What Do We Do When Tough Times Hit? (And They Will Hit)[5]

First consider why you believed in this investment process to begin with.

Your first line of defense is the evidence and intuition that convinced you to do these things in the first place. We think the evidence that factors like value, momentum, quality/low risk, carry, and trend work over the long-term is incredibly strong. The gigantic literature showing their efficacy goes way beyond choosing US stocks to now include non-US stocks, equity index selection, bond market selection, commodities, currencies, credit, where to be on a yield curve, etc. Furthermore, these results have held up out-of-sample in almost 25 years of our own trading.[6]

I'm not going to leave it there. There is always a chance that the world has changed and that this time is truly different and what was once true is no longer so. But you must start with the amazingly powerful amount of evidence of a modest (not hundreds of factors in an orgy of data mining) set of economically intuitive strategies done in a ton of places over the long-term.

As a blunt example, in general we believe in choosing individual stocks with good value, good momentum (both price and fundamental), low risk, high quality (e.g., profitability, margins), and positive views from those we think are "informed investors."[7] We like to under-weight or sell their opposites.

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[2] One of the great errors in investing is focusing not on the whole portfolio, but on each individual line item. When it comes to modest-sized investments, the question is not "would I bet my portfolio or career on this working?" but "would I put 5% of the portfolio in this investment to make a modest, but real, ex ante improvement?" We are highly confident in our process (as this piece discusses: the amazing amount of long-term evidence supporting it and the lack of evidence, despite looking hard, for a clear reason anything has changed today). But it's vital to recognize that the bar to believe as we believe is not "would I bet the ranch on this?" but "would I diversify a bit into this?" We're obviously not neutral on this, but we think this bar is cleared by a mile.

[3] We believe in a core set of "factors," many are well-known but implemented in proprietary ways. We put them together differently for different investors with different goals, constraints, or other holdings that make some combinations better diversifiers. But they all share a common DNA as this year, rather annoyingly, shows.

[4] In fact, we argue that "three Sharpe ratio strategies" are an overrated holy grail, at least for outside investors if not the managers themselves. Besides sometimes being very hard to differentiate from vol-selling, even true ones tend to be smaller capacity and more fleeting than other good but not so incredibly high Sharpe processes. They also, not surprisingly, tend to be much higher fee ameliorating their net return advantage. And, in a final irony, even if they are medium-capacity and sustainable, the managers who find these strategies seem to soon kick out all the investors and keep all the three Sharpe goodness for themselves!

[5] I mean, besides whine and hit inanimate objects. Or is that just me?

[6] Furthermore, as more data has become available, researchers have been able to test these factors further back in time than what the original work was able to do.

[7] Of course, we measure these things in many ways and are always working on improving the specifics. Some of these ways are well-known, some more proprietary.

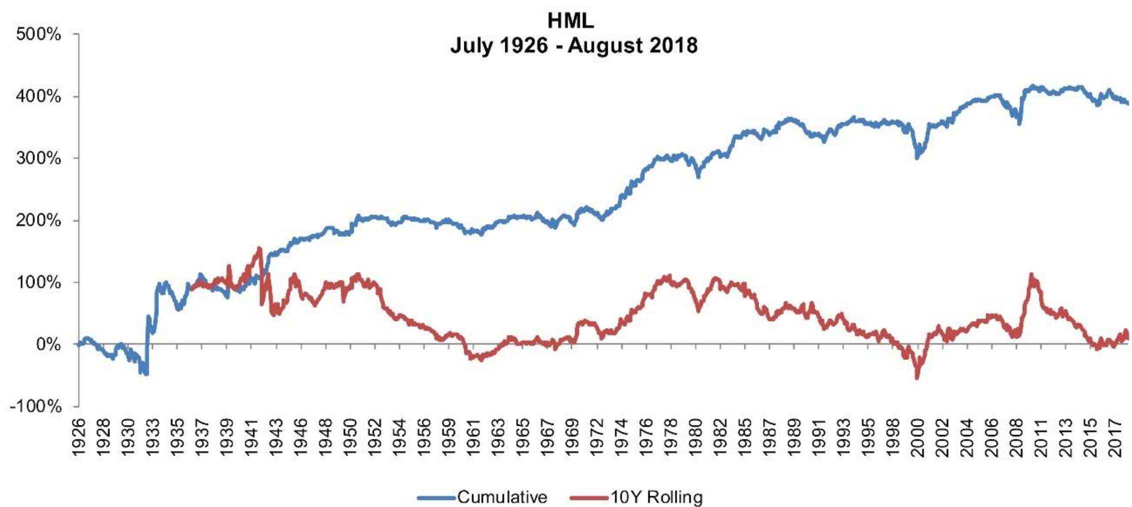
When it doesn't work, or even hurts a lot for a while, we don't suddenly prefer expensive stocks with bad momentum, high risk, low quality, and negative views from informed investors. Our base case is to rely on the (in our humble opinion) overwhelming evidence we started with.

What do the numbers tell us?

So, conviction in what you've built is great, but how do you even begin studying if "this time is different" and things shouldn't be expected to work going forward? Step one is to ask purely statistical questions. Have the returns recently experienced been shocking or something we expect to see on occasion?

It seems obvious that when you have strategies that have worked long-term, in historical simulations and in real life, and that are experiencing a painful 6 to8 month period, performance alone shouldn't change your view.

Well, what if the strategy has been bad over longer horizons? Take the value factor in individual stocks. It's been a bad post-GFC (Global Financial Crisis) period for systematic value investing, particularly in the US. See the cumulative return and rolling 10-year return graph below for the Fama-French HML factor (using the improvement from Asness and Frazzini (2013)) going back to 1926.[8] Would you sign up for that return (over the next 100 years) even with the poor performance over the past decade or the drawdowns it has experienced at other times in the past? I certainly would (as part of my portfolio, not all!). I can conceive of changing my mind about this factor for other reasons. But its recent performance is decidedly not one of them.



Source: AQR. Returns are from a long high Book-to-Market, short low Book-to-Market factor using the adjusted definition (HML Devil) of Asness and Frazzini (2013), "The Devil in HML's Details." *Journal of Portfolio Management.* For Illustrative purposes only.

So, barring long-term poor returns that wipe out the amazingly large multiple sources of evidence for the strategies we're discussing, realized recent returns just don't tell you very much.

[8] Please recall that we don't measure value as simply price-to-book.

When should you change your mind?

The above doesn't mean you just dismiss anything less than a -10 standard deviation event as pure statistical fluctuation. It just means those events alone are not particularly a cause for major concern. Simply observing a bad period is not nearly enough as by definition that means you're throwing out good strategies after periods you know will occur on occasion.

Still, it's important to keep an open mind about whether "the world might've changed" rendering a strategy (or factor or investment process) that was a good idea for a long time seem like a bad one now. Even hundreds of years of evidence can cease to apply if giant permanent changes to markets and investing practices truly occur. However, you need to be clear about how you think the world has changed and evaluate the impact that such change would have on your strategy. It's not productive to just generically worry things are different now. Trying to be specific in our hypotheses is something we've poured a ton of time into. We have looked hard and just haven't come up with anything that supports the idea of a significant structural break in the long-term efficacy of these strategies (we discuss some of these in the Q&A section later).

So how "open a mind" to keep is a good question. Too open and one never sticks with any good strategy through its tough times. But, not open enough isn't good either as, obviously, one risks sticking with a strategy that truly no longer works. One should change their mind based on evidence, big enough numbers to change the long-term historical evidence, or a theory going forward that is supported by observation. None of these seem to apply today.

Let's Review the Psychology (Or, Why Are These Strategies So Difficult to Live With?)

So, these strategies have tremendous long-term evidence, are economically intuitive, and after trying hard while keeping an open mind, we can't find anything beyond just the kind of painful year.[9] The obvious thing to do is stick to your process, right? Although we absolutely agree with that, this section contains some thoughts on why it's so damn hard to do.

First, let me admit that I don't find it psychologically easy at all—quite the opposite. I spend a lot of time, like in this note, encouraging people to be "long-term" while trying to put in perspective how we expect the short-term to be ugly on occasion. Nevertheless, I have, on occasion, shown the stress of tough times in ways I'd like to forget. I hope this personal weakness is a sign of caring, passion, and human frailty, not hypocrisy.

While I'm embarrassed by the fact that I can't rid myself of these behavioral biases, I'm proud of the fact that it does not affect how we run the portfolios. Furthermore, I console myself that if I can't rid myself of these difficulties after all these years of managing and studying these strategies, then many others likely can't also. Remember, if these strategies were easy to live with they'd likely be far more susceptible to being arbitraged away.

[9] Or longer for single factors like value or trend.

It's one thing to look at 50-100 years of history and observe all the short and even medium-term ups and downs as the strategy slowly drifts upward over the long run. The history shows a decent number of "negative two standard deviation six-month events" and worse. It's easy to say, "Well that's part of the statistical properties of this strategy." At this stage it's easy to be rational. However, it's an entirely different thing to live it real time. In real life we experience all the months, weeks, days, and sometimes hours and minutes that add up to a bad period. Another bad day can feel like proof something is fundamentally wrong, even if you know the odds on any given day are only a hair over 50% in your favor. No matter how much you know better, you still ask yourself and others how can that happen!?[10]

We call this feeling time dilation. Time slows down in a drawdown. You start being amazed how you lose in up and down markets of all variety (of course, that's the point of alts!). It's what drawdowns are like. Living it every day makes it seem like far more evidence than it really amounts to. However, these periods don't prove much at all.

Also, in tough times people come up with stories, sometimes plausible ones (even if not true), sometimes nutty ones, for why something that has worked for 100 years, in a robust set of out-of-sample tests, with great economic logic, no longer does anymore. Oddly, you don't hear these too often when a strategy has been doing well (in a perfectly rational world such examinations would be symmetric). Ironically, even very smart and knowledgeable managers and investors are not immune from this (I hope I fit this category). In fact, being smart often means being better and more creative at coming up with stories for why now is different.

What does this bias all add up to? We all know the drill. We all read about phenomena like the average fund investor grossly underperforming the average fund due to mistimed flows (getting in after good times, out after bad times) and we shake our heads at others' folly, not realizing that Pogo may be running our portfolios.

Embrace the suck

Strategies that deliver real-life reasonable risk-adjusted returns can be incredibly difficult to stick with long-term. It's a paradox. They perhaps exist precisely because they are hard to stick with. Living through the tough times and staying disciplined seems to be the secret ingredient in the success of many historically great investors.

The realistic goal for any of us is not to eliminate the pull of irrationality. The goal is to set yourself up to weather your own biases and profit from those of others—through how much risk you take, and through your thorough understanding of what you've invested in. The goal is not unrealistic sang-froid but resilience.

There is a crass but evocative term I borrow from the military for this phenomenon. It's called "Embrace the Suck".[11] Wiktionary defines it as "To consciously accept or appreciate something that is extremely unpleasant but unavoidable." Unstated, but implicit, is that you don't do this because you really want to,

[10] One way I can tell I'm over-stressing is when the sign of a fund's return intra-day flips from a small (say +5 basis points) positive to a small (say -5 basis points) negative. That is a trivial change that is statistically just noise. In good times I know that and am unaffected. In much harder times a stupid -10 basis point down move, and a switch from a green to a red number on the screen, is like a punch in the gut!

[11] And have used before. Sorry for repeating myself but it's just so apt.

or as proof of your toughness, but because it's necessary to achieve your goals.[12] You don't do this because you enjoy the suck. You do it because, over the long-term, it's the only way to add value, and it likely exists because many others can't tolerate it.

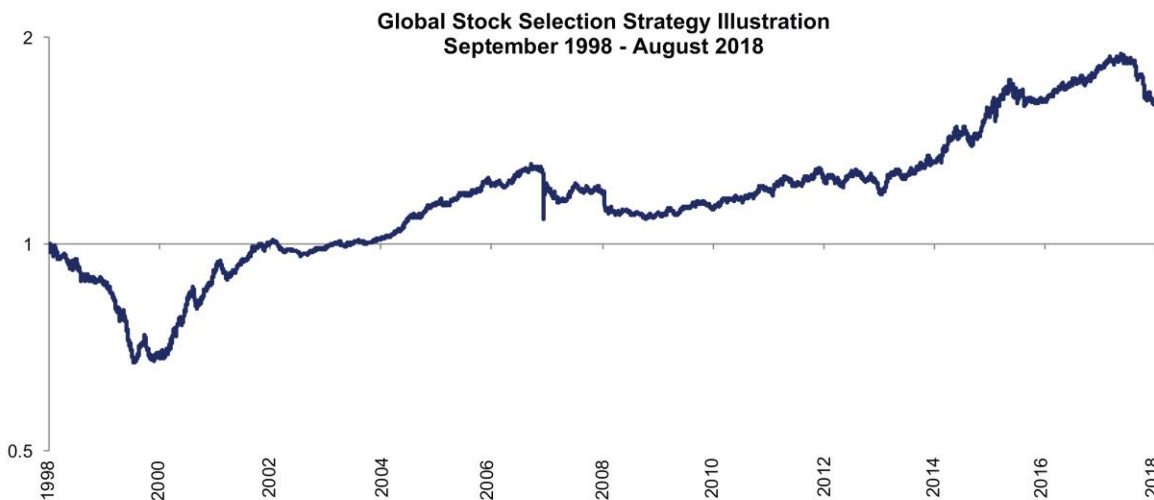
Losing unconventionally is hard

Ok, so you're ready to embrace the suck. However, be prepared. It's harder to suffer tough periods when there are no easy explanations. The irony is that precisely what we strive to create in liquid alts is long-term positive returns with a very low correlation to other investments and macro themes. Yet, if we successfully create that, then when the tough times hit they will seem to appear out of nowhere. This can add to frustration. Again, that's what you want in a liquid alt, but we must acknowledge the additional difficulty it brings.

Losing in more conventional form, as Keynes warned us about, is easier. We know this first hand because we manage both long-only and long-short versions of these strategies. In the current market where the strategies are suffering, but stock markets are up, our long-only strategies have typically been positive while trailing their benchmarks. That is far less frustrating than being down while markets are up. In sum, doing something long-term right, but ***different***, that you can stick with, is the entire point. But that ***different*** part can be excruciating.

A Case Study: Global Stock Selection

To further flesh out these ideas, let's look at a specific real-life example. It's our longest live track record for the market-neutral equity strategies that are the major source of pain this year. This strategy is part of a broader portfolio that also takes substantial risk in macro strategies. (So the scale doesn't make a lot of sense as it's a gross contribution, not a total return (and it's a log scale)). But it is useful to see what running this strategy has felt like and to put the recent drop into some perspective:



Source: AQR. The GSS Strategy example is a carveout derived from the Global Stock Selection strategy's attribution to the overall representative institutional portfolio, excess of cash, scaled to an 8% annual volatility target. This hypothetical performance does not represent the return to an actual fund or trading account that an investor could directly participate in and does not reflect the deduction of any fees or expenses, which would reduce an investor's actual return. For illustrative purposes only. Hypothetical data has inherent limitations, some of which are described in the disclosures. See additional disclosures at the end of this article.

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[12] Another great version of this concept is by Corey Hoffstein who sums it up succinctly and accurately as "No pain, No Premium." Also, the folks at Alpha Architect have some other good stuff on how hard this can be, and how true value add over time involves, and in fact flows from, discipline.

This recent swoon isn't small compared to history. But it ain't huge either. We've seen it before, some not as bad, some much worse. Some examples are the 1999-2000 tech bubble[13] and the "quant quake" in August 2007.[14] This strategy has been a solid positive long-term contributor with very low correlation to traditional markets over the long-horizon.

Frankly, we'd never recommend that these strategies alone should dominate an investor's overall portfolio. But who exactly wouldn't want to add some of the above to theirs over the last twenty years? But to achieve them we had to live through hell a few times.

What's Not Going On? (and some related FAQs)

We get a lot of specific questions that don't fit in very well above. But I want to make sure I address them, so, here we go:

Is too much money chasing these factors?

There are a few possible ways this would show up. If the world completely arbitraged away any factor, we would likely see the value spreads[15] of these factors get way worse than historical experience. Well, we are not generally seeing this and certainly not for the value factor. Spreads are mostly uneventful and within the range of historical experience. Second, the transactions costs of trading these factors could be higher as too many people try to do the same trade, thus eating into returns. The problem with this theory is once again the complete lack of evidence to support it. We track costs extremely closely and nothing abnormal is occurring. Finally, if too much money is chasing value, for example, we'd expect to see better than average returns over this period followed by a desultory future. This is decidedly inconsistent with what we have observed. If value had been arbitraged away, where were the windfall profits?!

Are you too big?

This is a related question. We hear this question a lot about stock selection and we really don't think so, though it's always a fair question. Again, our trading costs don't look abnormal. And what's been going on this year has been happening for many quants of many sizes and even more generally for non-quantitative value managers. Similarly, assets in dedicated trend-following managers never recovered from their peak in 2008 (our best estimate is they're about 40% lower). At the same time, measures like open interest and volume have increased meaningfully. Finally, our strategies being too big wouldn't imply large drawdowns. Rather, it would mean they are potentially not able to generate returns as expected over the next long-term. We just don't think this is it.

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[13] The starting point of the chart still sticks in my craw! I could argue that starting in 1998 understates the case as it starts and ends with a bad period, not a random point. We started AQR right before a horrible period for quantitative stock selection but after a number of good years at our former employer that don't make the graph! And the analysis, by definition as that's why I'm writing this, ends with this bad period. Such endpoints bias you to find worse than representative results. Still, even with this bias, life has been pretty good long-term despite including quite a few periods comparable to today.

[14] I'm pretty sure that for about five years after its occurrence this was more often referred to as the "quant crisis" but then "quant quake" started to dominate. Alliteration always makes losses feel less painful.

[15] Comparing your value score for the securities the factor likes to the value score for those it dislikes.

Are we measuring value (or any other factor) wrong?

In particular, people worry that old methods of measuring value don't apply to the modern word. If true, this wouldn't mean value doesn't work anymore, but we do need to change how we measure it. We measure value in a large variety of ways, including measuring it within industries, which largely mitigates a lot of the concerns. So we don't think this is a major issue for us.

So, what do I actually own?

It's hard to wrap your head around what you own in a truly hedged liquid alt. Of course, again, that's much of the point. What you own, using equity market neutral as the example, is a very diversified set of, cheaper, improving on price and fundamentals, lower risk, and higher quality stocks and you're short their opposites. The portfolio changes over time (which also means you're not always rooting for prior events to exactly reverse) but that idea always remains the same. We absolutely commiserate that this is harder to visualize than, say, the turnaround of the market or a single stock. But, this is how we create something with positive long-term expected returns that does not look like those other things.

Is the pain this year in market-neutral stock selection from short covering? From deleveraging?

We really can't find evidence of this either. Sorry, I don't have much more than that. We've looked at data on whether short interest levels in heavily shorted stocks has changed materially (it hasn't) and explored it more anecdotally (yes, we're quants, but we have people who can talk to the humans, like at prime brokers and trading desks). This doesn't appear to explain much at all.

Is this a huge tactical distress / opportunity?

Everyone wants me to say that it is. It would indeed be comforting to tell people "you have to stick with this or add more as it's going to rocket upwards very soon!" FOMO can be a powerful inducement. But I just can't do it.

Value is not predictably bad or good following periods where fundamentals move against it. Our forecast, and it's not for want of trying for more, is value prospectively looks about normal versus history going forward. Thankfully normal is, on average, pretty good.

Does this painful year presage a bear market for traditional assets, like in 1999-2000 and 2007-2008?

It's indeed true that our most difficult periods have come about 10 years apart, now again in 2018. It's also true that the prior two came before the severe equity bear markets of 2000 to 2002 and late 2007 to early 2009. Frankly, while I want to cover all common questions, I don't have much to say here. Two data points, and zero theory, make a thin gruel for forecasting. I could jerry-rig up a self-serving hypothesis that when "really smart disciplined investors are taking it on the chin it means something is wrong in the world" but I just can't with a straight face.[16] I think this one is largely coincidence.

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[16] Another hypothesis is we're this guy.

Conclusion

This has been a long post-GFC (call it near a decade) strong period for traditional markets coinciding with an equally weak period for systematic value and trend following. Most diversified liquid alts, particularly market-neutral stock selection, have not suffered until this year. But, short-term (this year) it's again been good for beta, again bad for systematic value and trend following, and, unlike prior years, quite poor for many other quantitative approaches to liquid alts.

Still, the long-term evidence, in tons of places (geographies and asset classes), across oodles of time, is that value, trend and the other factors, are not so weak, nor is beta so strong, as recent experience would indicate.

So, what are we doing? Well, aside from communicating, measuring, monitoring, and considering every theory from the reasonable to the somewhat whacky, mostly we're doing the hardest thing. Nothing. At least nothing in terms of radically altering our investment process. In every drawdown there is a huge bias to "do something." It's quite difficult to look at clients and say you're changing very little despite poor returns.

Unfortunately, I can't promise you things won't get worse before they get better (though getting better is indeed our expected case). I can't promise you abnormally high short-term expected returns. I believe that navigating through times like these is a major way we add value for clients. Both by sticking with what we do like grim death, and also by helping our clients to do so. We're geared up, ready, and won't flag or fail.

In 20 years at AQR, and near 30 years of working on quantitative factors, I can tell you we've seen this before (well, not exactly this, but they all rhyme). And that's ok. The painful and difficult times are a big part of why we're convinced these things are real and can improve long-term results for those who can allocate part of their portfolio to them and then stick with it. We indeed must "embrace the suck" as it's likely why we can be long-term successful. We've seen this movie before, and it had a happy ending.

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The hypothetical performance results contained herein represent the application of the quantitative models as currently in effect on the date first written above and there can be no assurance that the models will remain the same in the future or that an application of the current models in the future will produce similar results because the relevant market and economic conditions that prevailed during the hypothetical performance period will not necessarily recur. Discounting factors may be applied to reduce suspected anomalies. This backtest's return, for this period, may vary depending on the date it is run. Hypothetical performance results are presented for illustrative purposes only. In addition, our transaction cost assumptions utilized in backtests, where noted, are based on AQR's historical realized transaction costs and market data. Certain of the assumptions have been made for modeling purposes and are unlikely to be realized. No representation or warranty is made as to the reasonableness of the assumptions made or that all assumptions used in achieving the returns have been stated or fully considered. Changes in the assumptions may have a material impact on the hypothetical returns presented. Actual advisory fees for products offering this strategy may vary.

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