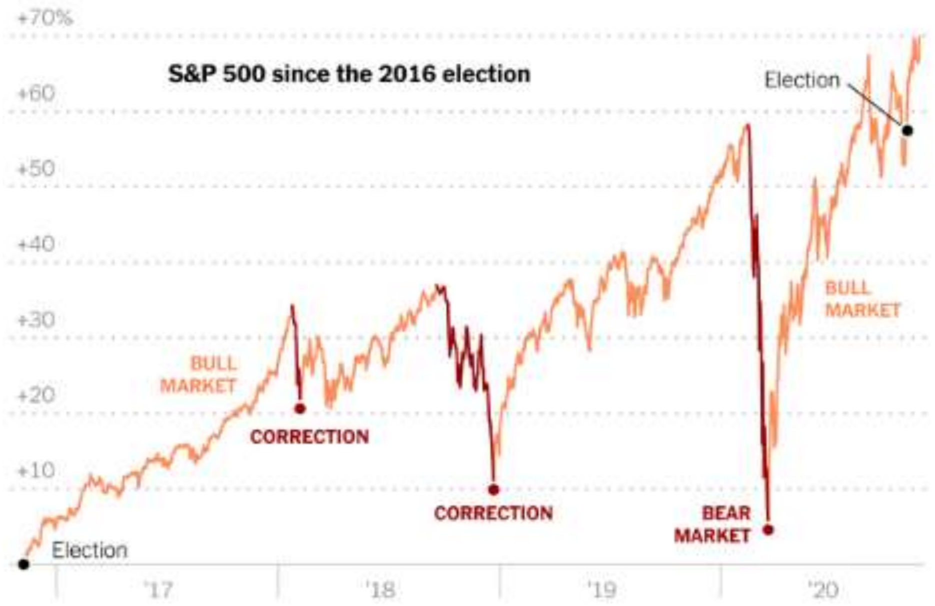
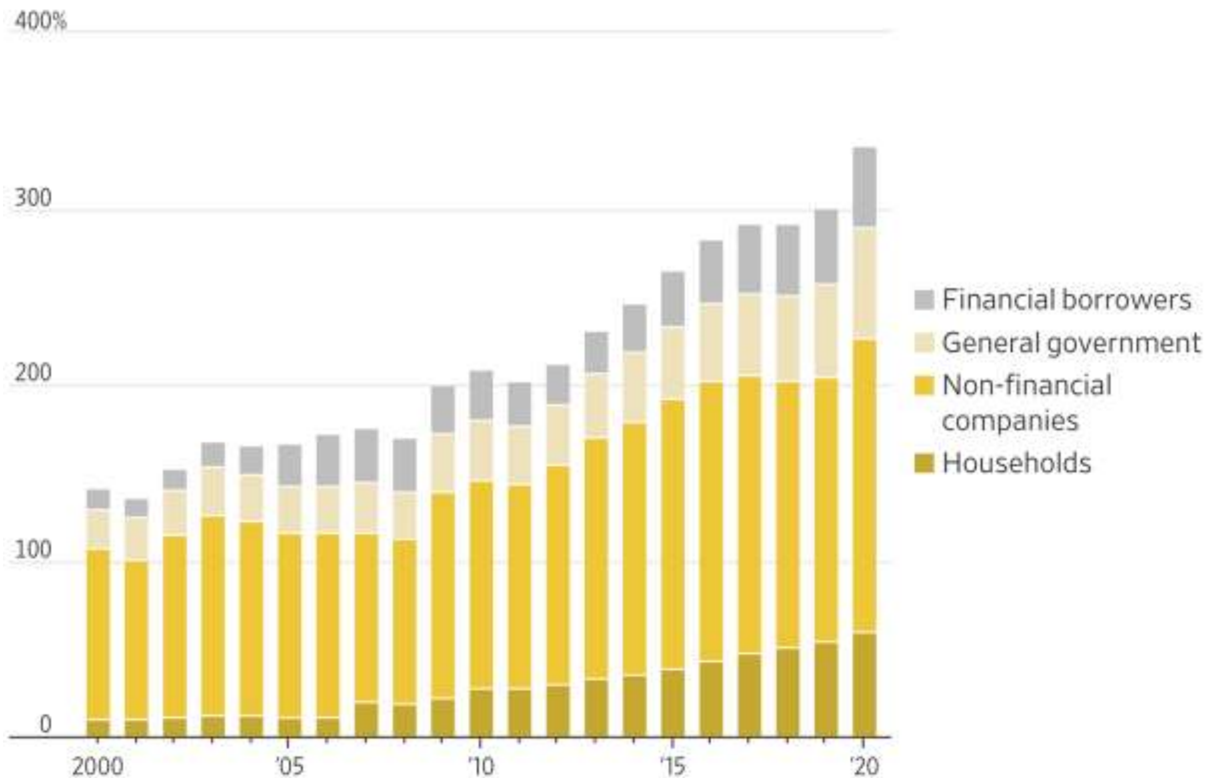
November 2020

The S& P 500's gain of 11% was its best since April, while the Dow, up 12%, saw its best month since January 1987. The Nasdaq also climbed 12%, but the Russell 2000's 18% gain lead the pact with its best month ever.



One of our two largest longer-term concerns continues to grow. From today's Notes on the News:

A [record $9.7 trillion in bonds] and other debt has been issued this year by companies and governments looking to weather the economic pain of the pandemic. That borrowing spree has put total global debt on pace to hit $277 trillion, or 365% of the world's gross domestic product, by the end of 2020. U.S. corporate bonds make up a large slice of the debt issued this year, spurred by low interest rates.



From Friday's Global Investment Strategy report:

The Waiting Game

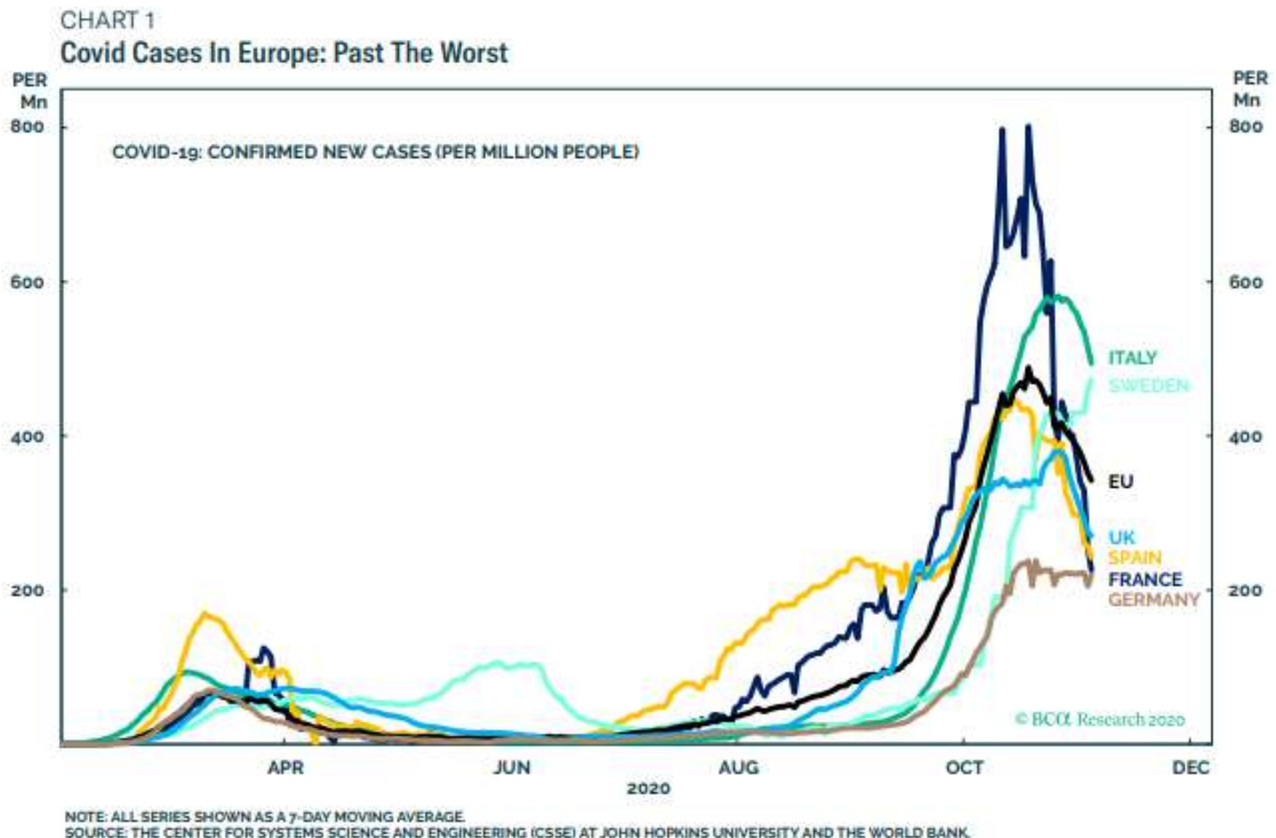
This week brought some further good news on the pandemic front. The number of reported daily cases continues to trend lower in Europe. The 7-day average has now fallen by 30% from its November 8th peak (**Chart 1**). In the US, there are faint indications that the number of new cases is stabilizing, especially in the hard-hit Midwest.

Nevertheless, it is too early to breathe a sigh of relief. As with other coronaviruses, SARS-CoV-2 spreads more easily in colder temperatures. Moreover, this week is Thanksgiving in the US, and with the holiday season approaching in the wider world, there will be more opportunities for the virus to propagate.

Despite the cresting in new cases, the absolute number of confirmed daily infections remains extremely high. The 7-day average currently stands at about 175,000 in the US. Adjusting for the typical three-week lag between new cases and deaths, the case-fatality rate is approximately 1.8%. The CDC estimates the "true" fatality rate is 0.7%.1 This implies that for every one person who tests positive for Covid-19, 1.5 people go undetected. Thus, around 450,000 Americans are catching Covid every day. That is 3.2 million per week or about 1% of the US population. Other estimates from the CDC suggest that the true number of new infections may now be even greater, perhaps as high as 11 million per week.

Unlike in Europe, where governments have implemented a series of stringent lockdown measures, the US has taken a more relaxed approach. If the number of new infections fails to fall much from current levels, more US states will have to tighten social distancing rules.

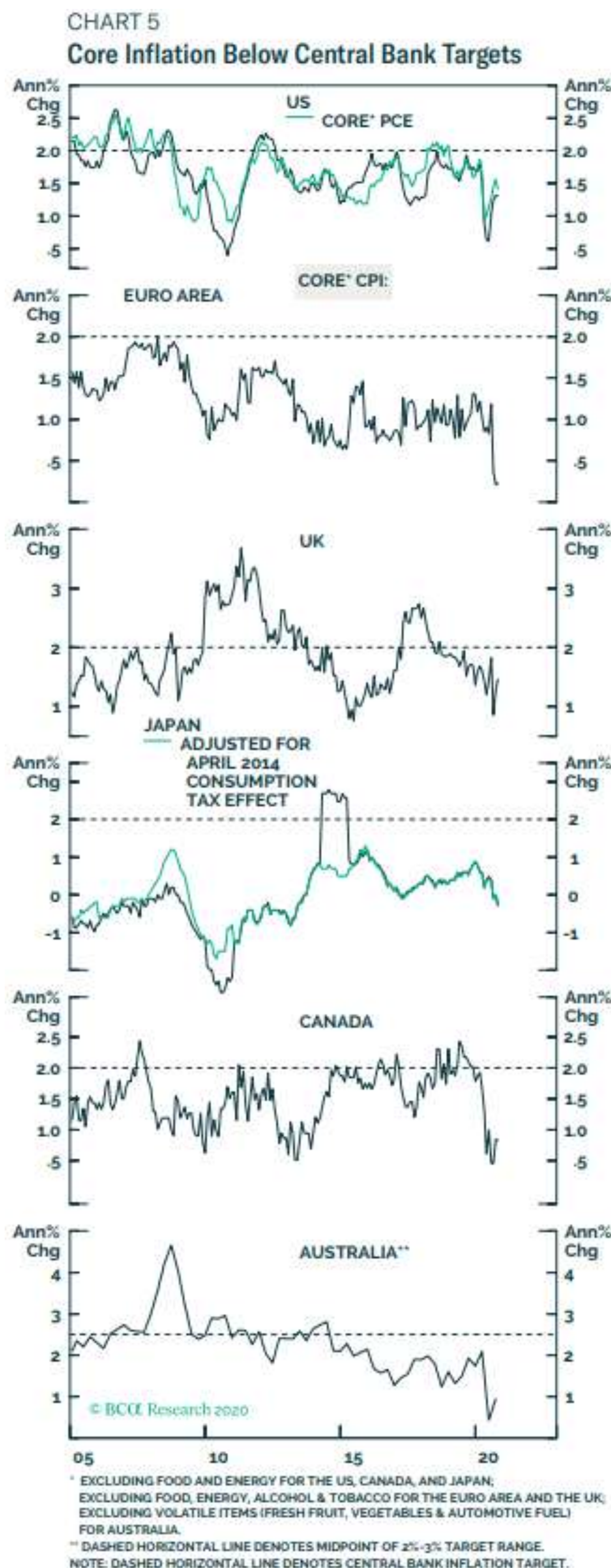
The availability of vaccines will pave the way for stronger growth in the medium-to-long term. ...



The Outlook For Inflation

Could inflation make a comeback once a vaccine is widely available?

The pandemic put significant downward pressure on prices in a number of areas, particularly air transport, accommodation, apparel, and gasoline. While prices in some categories, such as used cars, meats and eggs, and certain toiletries did rise briskly, the net effect was still a substantial decline in overall inflation



Core PCE inflation stood at 1.4% in October, well below the Fed's target. As **Chart 5** illustrates, core inflation is below central bank targets in most other economies as well.

A bounce back in prices in the most pandemic-afflicted sectors should lift inflation over the next six months. Our US bond strategists expect core PCE inflation to peak at 2¼% in the second quarter of next year, before falling back below 2% by the end of 2021.

Ignoring the temporary oscillations in inflation due to base effects, a more sustained increase in inflation would require that labor market slack be fully absorbed. In its October 2020 World Economic Outlook, the IMF projected that the unemployment rate in the major economies would fall back to its full employment level by around 2025. While a vaccine will expedite the healing of labor markets, it is probable that unemployment will remain too high to generate an overheated economy for the next three years.

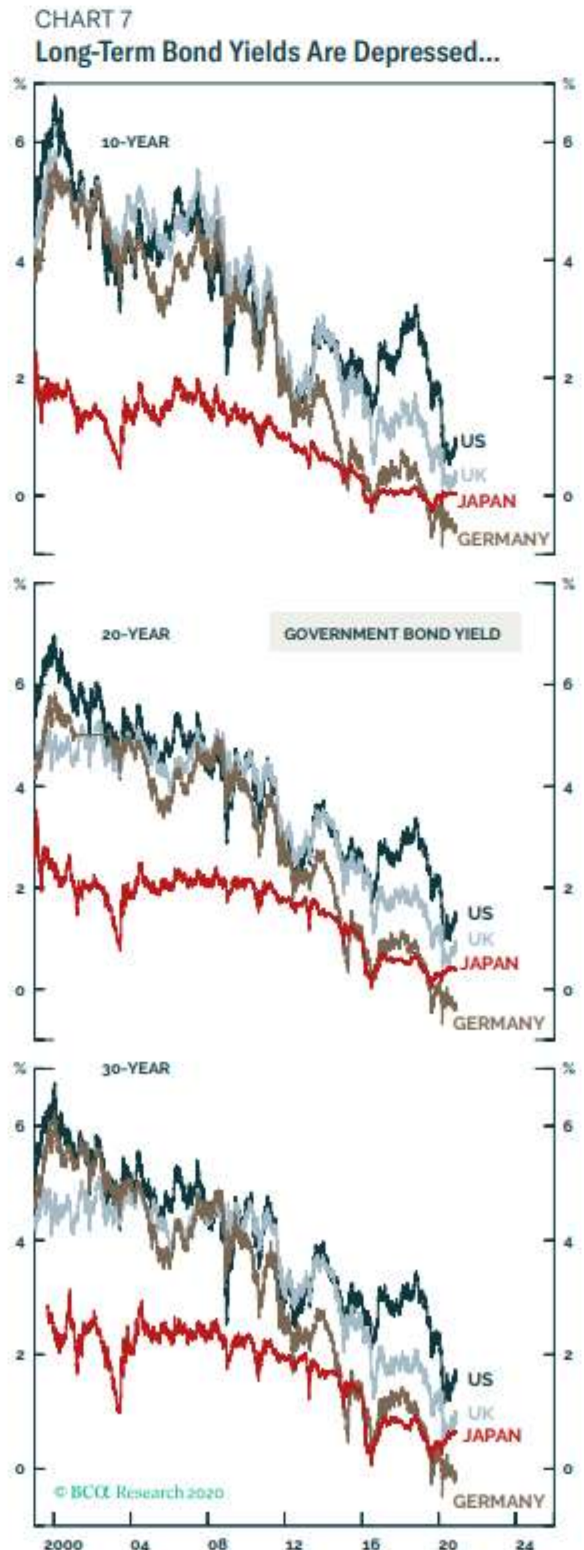
What about beyond then? The fact that long-term bond yields are so low today implies that most investors think that inflation will remain subdued for many years to come (**Chart 7**). This is confirmed by CPI swaps, which in some countries go out as far as 50 years. For the most part, they are all trading at levels below official central bank inflation targets.

Is inflation really dead, or is it just dormant? We think it is the latter. ...

What is true is that rising wage growth has failed to translate into higher price inflation in most economies since the early 1980s. However, this may have simply been due to happenstance: Every time the global economy was starting to heat up to the point that a price-wage spiral could develop, something would happen to break it. In

2019, the unemployment rate in the G7 hit a 46-year low. Perhaps inflation would have accelerated this year had it not been for the pandemic? Likewise, inflation might have risen in 2008 had it not been for the financial crisis, and in 2001 had it not been for the dotcom bust. ...

During the 1960s US core inflation remained steady at around 1.5% in the first half of that decade, even as the unemployment rate drifted lower and lower. In 1966, with the unemployment rate nearly two percentage points below NAIRU, inflation blasted off, doubling to more than 3% within a span of six months. Core inflation would go on to increase to 6% by 1969, setting the stage for the stagflationary 1970s.



A Less Deflationary Structural Backdrop

Many pundits argue that the structural backdrop for inflation is vastly different today than it was during the 1960s, making any comparison with that decade next to worthless. They point out that unions had a lot more power back then, global supply chains were underdeveloped, and rapid population growth was creating more demand for goods and services than the economy could supply. ...

Granted, unions are not as powerful as they were in the 1960s. However, public policy is still moving in a more worker-friendly direction. Witness the fact that Florida voters, despite handing the state to President Trump, voted 61%-to-39% to raise the state minimum wage in increments from $8.56 an hour to $15 by 2026. Joe Biden has also pledged to hike the federal minimum wage to $15 from its current level of $7.25.

Meanwhile, globalization is on the back foot, with the ratio of trade-to-output moving sideways for more than a decade. At the same time, baby boomers are departing the labor force en masse. Rather than remaining net savers, these retiring workers will become dissavers. This means that the global savings glut, which has suppressed interest rates and inflation, could begin to dry up.

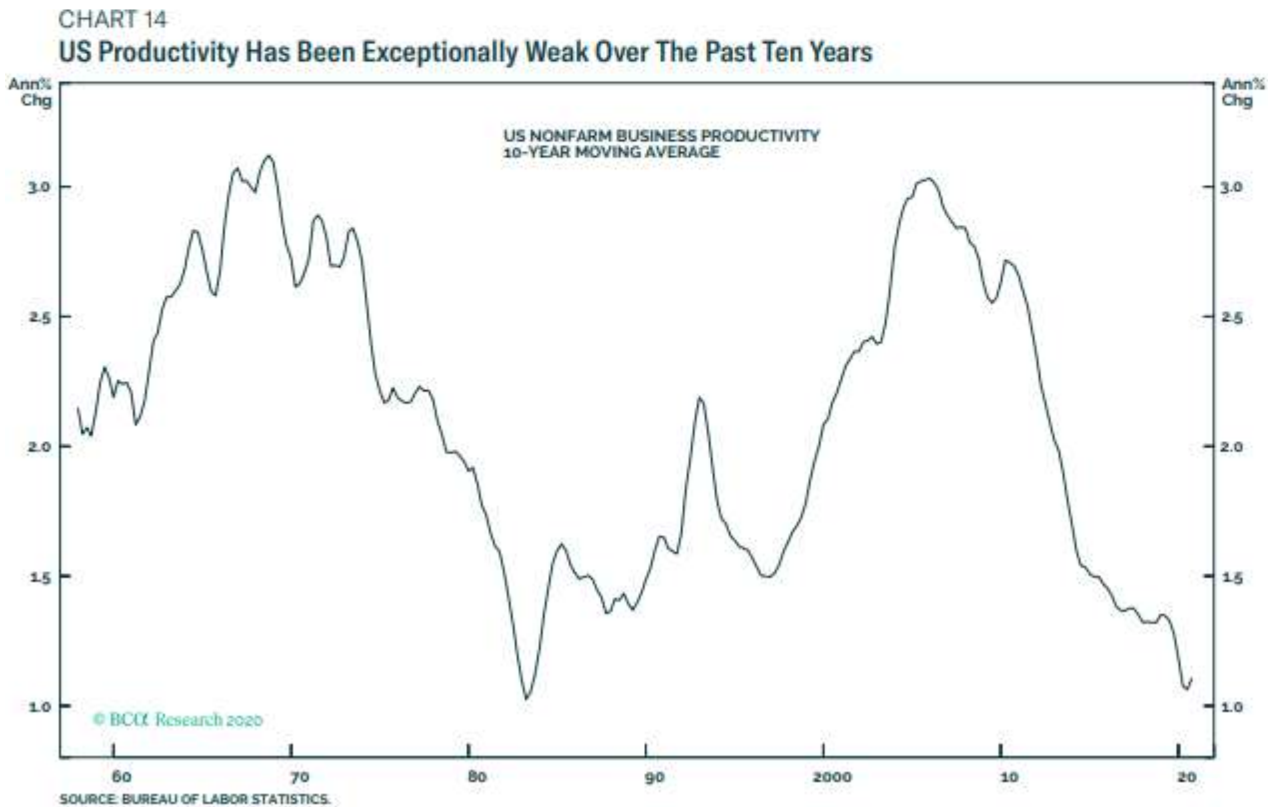
Perhaps most ominously, social stability is at risk of breaking down. Homicides in the US have risen by nearly 30% so far this year compared to the same period a year ago. ...

The Role Of Innovation

Technological innovation has been routinely cited as a driver of falling inflation. In many ways, this is rather odd. Economic theory states that faster innovation should lead to higher real income.

It does not say whether the increase in real income should come via rising nominal income or falling inflation. Indeed, to the extent that faster innovation leads to higher potential GDP growth, it could fuel inflation. This is because stronger trend growth will tend to raise the neutral rate of interest, implying that monetary policy will become more stimulative for any given policy rate.

Moreover, the fixation on technology as a deflationary force is a bit strange considering that measured productivity growth has been exceptionally weak in most advanced economies over the past 15 years – weaker, in fact, than it was in the 1970s (**Chart 14**).



How, then, does one explain why tech stocks have fared so well? One oftenheard answer is that productivity growth is mismeasured. ... A more plausible answer is that while the pace of innovation has not sped up, the nature of innovation has changed dramatically in ways that have helped Wall Street a lot more than Main Street.

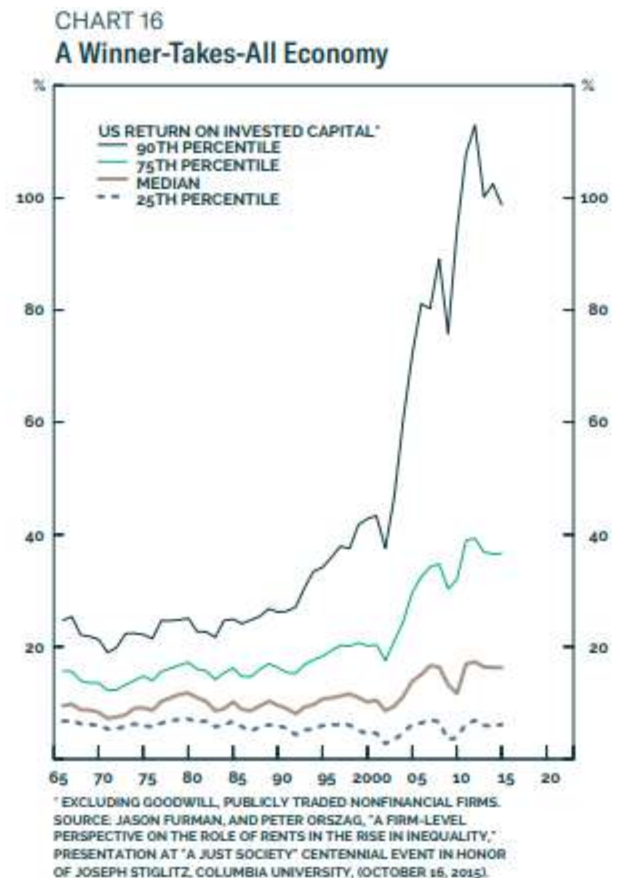
The True Nature Of Corporate Profits

Standard economics textbooks regard profit as a return on capital. This implies that if the price of capital goes down, firms should respond by increasing investment spending in order to further boost profits. In practice, that has not occurred.

For example, the Trump Administration promised that corporate tax cuts would produce an investment boom. While business investment did rise in 2018, this was all due to a rebound in energy spending. Outside of the oil and mining sector, business investment grew more slowly between Q4 of 2016 and Q4 of 2019 than it did over the preceding three years. Likewise, neither falling interest rates nor rising stock prices – two factors that should produce a lower cost of capital – have done much to buoy investment spending in recent years.

Why did the standard economic relationship between investment and the cost of capital break down? The answer is that the traditional approach does not take into account what has become an increasingly important driver of corporate profits: monopoly power.

A recent study by Grullon, Larkin, and Michaely found that market concentration has increased in 75% of all US industries since 1997. Furman and Orszag have shown that the dispersion in the rate of return on capital across firms has widened sharply since the early 1990s. In the last year of their analysis, firms at the 90th percentile of profitability had a rate of return on capital that was five times that of the median firm, a massive increase from the historic average of two times (**Chart 16**).



The dispersion in performance has been particularly stark within the tech sector. According to BCA Research's proprietary Equity Analyzer, the shares of "value tech" companies – that is, companies trading in the bottom quartile of price-to-earnings, price-to-operating cash flow, price-to-free cash flow, price-to-book, and price-to-sales – have not only lagged the shares of other tech companies, but they have also lagged the shares of similarly valued financial companies. This underscores the point that the outperformance of growth stocks over the past 12 years has not just been a story about technology. Rather, it has primarily been a story about some tech companies doing much better than other tech companies.

The Winner-Take-All Economy

What explains the bifurcation in performance within the tech sector? Two reasons come to mind. First, tech companies are particularly susceptible to network effects: The more people who use a particular tech platform, the more attractive it is for others to use it. Facebook is a classic example. Second, tech companies benefit significantly from scale economies. Once a piece of software has been written, creating additional copies costs almost nothing. Even in the hardware realm, the marginal cost of producing an additional chip is tiny compared to the fixed cost of designing it. All of this creates a winner take-all environment where success begets further success.

The role played by winner-take-all markets explains how a handful of companies were able to become mega-cap tech titans. ... increased monopoly power, as reflected in rising profit margins and higher relative P/E ratios, has played a greater role in driving tech share outperformance since the mid-1990s than faster revenue growth.

Reaching Adulthood

History suggests that monopolists tend to experience an initial rapid growth phase in which they capture ever-more market share, followed by a mature phase where they effectively function as utilities – cranking out stable cash flows to shareholders without experiencing much further growth. While it is impossible to say how far along most of today's tech leaders are in this cycle, it does appear that the period of rapid growth for many of

them may be drawing to a close. As it is, close to three-quarters of US households already have an Amazon Prime account. Slightly over half have a Netflix account. Nearly 70% have a Facebook account. Google commands 92% of the internet search market.

The shift away from "growth status" towards "utility status" for some tech monopolists could prompt investors to trim the valuation premium they assign to these stocks. In addition, it could lead to increased regulation by governments to ensure that monopoly power is not abused. This could further depress valuations.

Monopolies And Inflation

What about the implications for inflation? Unlike firms in a perfectly competitive industry, monopolistic firms have to contend with the fact that higher output could depress selling prices, thus leading to lower profit margins. As my colleague Mathieu Savary has emphasized, this implies that rising market power could simultaneously increase profits while reducing investment in new capacity.

At least initially, this could be deflationary in two ways: First, lower investment spending will reduce aggregate demand. Second, greater market power will shift income towards wealthy owners of capital, who tend to save more than regular workers. This helps explain why falling real interest rates and rising profits have failed to trigger an investment boom.

Further down the road, the impact of monopoly power on inflation could turn on its head. Less investment spending will curb potential GDP growth, making it easier for economies to run up against capacity constraints. Low real interest rates could also induce governments to run larger budget deficits, boosting aggregate demand in the process. Finally, an economy where monopoly power runs unchecked will eventually spur a populist backlash, leading to reflationary policies that favor workers over business oligarchs.

Investment Conclusions

Equities have run up a lot since the start of November. Bullish sentiment has surged in the American Association of Individual Investors weekly bull-bear poll, while the put-to-call ratio has fallen to multi-year lows. Given the likelihood that economic growth could surprise on the downside in the near term, equities are vulnerable to a short-term correction. Nevertheless, rising odds of an effective vaccine and continued easy monetary policy keep us bullish on stocks over a 12-month horizon.

Equity investors should shift their allocation away from growth stocks towards value stocks and away from the US towards the rest of the world. ...

Looking further out, this week's report argues that inflation could accelerate meaningfully once unemployment returns to pre-pandemic levels in about two-to-three years. The departure of baby boomers from the labor market, sluggish productivity growth, fraying social cohesion, and a backlash against monopoly power could all push up inflation. These forces could also create a more challenging environment for stocks, particularly today's mega-cap tech names.

From Morningstar:

Tesla Finally Joins the S&P 500

Thereby making the index even more concentrated, high-growth, and volatile.

John Rekenthaler
Nov 19, 2020

Bon Mots
The news that Tesla (TSLA) will soon be entering the S&P 500 left me triply entertained.

First, I had not realized that Tesla was not already in the index. Perhaps there is a reason that my columns are free. Second, the announcement served as a reminder that the S&P 500 is a strange construction, being neither a pure representation of the largest U.S. stocks nor a "strategic-beta" benchmark that aims to outgain the norm. It is mostly the former, with a splash of the latter.

Third, Tesla's stock immediately jumped 13%, which makes no sense, because Standard & Poor's decision was inevitable. If not this month, then next month. Even if membership in the S&P 500 confers permanent value--which is questionable--that action should already have been baked into Tesla's quote. But I suppose that even finance professors don't believe that Tesla is efficiently priced.

Larger at the Top
The addition will increase the S&P 500's concentration, which is saying a great deal, because the index currently is more top-heavy than at any other time during the past 25 years. Usually, the S&P 500's Top 10 holdings make up about 20% of the index's total assets. That figure has expanded sharply over the past 18 months, reaching 28% in June. Since then, the Top 10 holdings have further surged. Counting Tesla's addition, they now account for 34% of the index.

Top 10 S&P 500 Weightings (Assuming Inclusion of Tesla)

	Weighting in S&P 500 (%)
Apple AAPL	7.4
Microsoft MSFT	5.8
Amazon.com AMZN	5.7
Alphabet GOOGL	4.4
Facebook FB	2.9
Berkshire Hathaway BRK.B	2.0
Tesla TSLA	1.7
Wal-Mart WMT	1.6
Johnson & Johnson JNJ	1.4
JPMorgan Chase JPM	1.3

Source: Morningstar Direct, ycharts.com

As indicated by the chart, most of the growth in the Top 10's influence comes from strong performance from index leaders Apple (AAPL), Amazon.com (AMZN), Alphabet (GOOGL), and Facebook (FB), rather than from the addition of Tesla. That said, by displacing Procter & Gamble (PG) from the Top 10 list, Tesla will add another half point to the Top 10's weighting. Another step in the ongoing process.

For several years, market observers have complained that the S&P 500 is dominated by a few giant holdings, but until recently such complaints were largely unfounded. From 2016 through 2018, when such comments started to become commonplace, the percentage of index assets occupied by the S&P 500's Top 10 continued to hover near 20%. They have increased only recently.

However, the argument certainly applies today. At one third of the S&P 500, the Top 10 positions truly can drive the index's results. ... That condition has benefited S&P 500 index-fund shareholders in 2020. Whether it will continue to do so is, of course, another matter entirely.

Nowhere to Run

Switching from the S&P 500 to a fund based on a broader index ameliorates the issue, but it does not eliminate it. As the S&P 500 accounts for three fourths of the value of publicly traded U.S. companies, those same Top 10 firms account for roughly 25% of the Wilshire 5000, or any other index that attempts to capture the entire American stock market. The condition cannot be escaped by purchasing, say, Vanguard Total Stock Market ETF (VTI) instead of Vanguard 500 Index (VFINX).

None of this would matter if the index's biggest companies operated in unrelated businesses. If, for example, one firm was the world's largest food manufacturer, another a multinational bank, a third a pharmaceuticals giant, and a fourth the dominant chip manufacturer, then the index's top positions would be diversified. To be sure, they would all fall together during a global stock-market decline, but so would the rest of the S&P 500. Concentration would pose no extra danger.

That is not the case, however. Although Apple, Microsoft (MSFT), Amazon, Alphabet, Facebook, and Tesla would seem at first glance to occupy different industries, from building smartphones to installing software to delivering packages to manufacturing automobiles, in reality their stock-market valuations all depend upon two features: 1) preserving their semi-monopolies and 2) extending their technological advantages. They rise and fall on the same investment waves.

Buyer Beware

This same argument, of course, applied to tech stocks in the late 1990s, which initially appreciated in unison, and then collapsed as a unit. However, the comparison ultimately fails, because the current version of the S&P 500 is much more concentrated than its predecessor. In summer 1999, four youngish companies (Microsoft, Cisco (CSCO), Lucent, and Intel (INTC)) qualified for the S&P 500's Top 10. Collectively, they accounted for 11% of the index's total assets. In contrast, the Sainted Six now make up 28% of the index. (Or 22%, if we eliminate Microsoft from the list, on the grounds that it has graduated to middle age.)

This column is couched with warnings: The possibility exists that what has occurred will reverse, thereby delivering losses to S&P 500 investors, even as most of their holdings appreciate. The caution is appropriate. Investors should realize that S&P 500 index funds have entered unchartered territory. Their key characteristics have changed dramatically over the past few years. What's more, the last time the index exhibited such behavior, even faintly, that dance ended badly.

Also, the Sainted Six's allocation punches above its weight. Aside from Tesla, these companies are consistently profitable; the health of their businesses is not in question. However, high investor expectations, along with the uncertainty associated with technology operations, make their stocks volatile. In practice, that 28% weighting sometimes moves so sharply as to dominate the proceedings.

None of this is to argue against owning an S&P 500 fund or other market-cap-weighted investment. Strong companies justifiably earn high valuations, and unless those prices are so steep as to be clearly ridiculous--which, in my view, [they are not](#)--it's unwise to challenge the wisdom of the crowd. Just recognize that the index has changed: It is riskier today than in years past.

John Rekenthaler 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 Rekenthaler Report, his views are his own.

Follow-ups

From Morningstar:

We've Seen a Post-Election Small-Value Rally Before

But this one could really end differently.

Dan Lefkovitz
Nov 17, 2020

Growth outperforms value for years. Large-cap stocks, especially technology, have trounced small caps. Then comes a U.S. presidential election and the trends reverse as value and small caps rally suddenly and powerfully. A market "rotation" is proclaimed.

Morningstar US Market Barometer 2016

		Value	Core	Growth
	US Market 12.44%	20.79	14.20	3.16
Large	11.18	18.91	13.75	1.79
Mid	14.39	25.21	12.40	6.46
Small	20.25	27.96	23.63	9.61

This certainly sounds like a description of 2020. But this same scenario played out in 2016. After Donald Trump's victory over Hilary Clinton, value stocks and smaller caps went on a tear. Then the rally fizzled, and large growth resumed its ascendancy.

Could the 2020 rotation be similarly short-lived? The historical gyrations of Morningstar's style indexes are worth examining, though my colleague David Sekera presents a strong argument for why this time is different.

Whether this trend reversal continues, of course, only time will tell. But it's worth comparing the dynamics of then and now.

The 2016 Post-Election Whipsaw
By the time the 2016 election arrived, large-growth

stocks had been on top for years. The FANG acronym, for market leaders Facebook (FB), Amazon.com (AMZN), Netflix (NFLX), and Google (GOOGL), was popularized in 2013. At the time, I wrote that the long-running popularity of growth over value and large over small "reflected a risk-averse, weak economic environment where investors favored established companies possessing secular growth drivers." ...

Morningstar US Market Barometer 2017

	US Market 21.47%	Value	Core	Growth
		14.23	21.12	29.52
Large	22.69	15.09	22.43	31.15
Mid	19.50	13.02	19.88	25.67
Small	15.03	8.40	13.17	23.77

Then came the "Trump Bump." The new president had campaigned on tax cuts, regulatory rollbacks, infrastructure spending, a protectionist trade policy, and economic growth above 4% (the U.S. economy never grew more than 3% per year during the Obama years). Meanwhile, Trump's relationship with the technology sector was uneasy. The market initially interpreted the 2016 election results as a boon for economically sensitive, domestically oriented companies in sectors like energy, basic materials, and financial services. Stocks like U.S. Steel (X) soared while big tech retreated. In what was referred to as a "post-election whipsaw," the Morningstar Small Value Index paced the market.

But the market quickly rotated back again. Expectations for the Trump presidency reset as parts of his agenda, such as infrastructure spending, failed to advance. Large growth resumed its dominance of the Morningstar Market Barometer in 2017 and beyond, thanks in no small part to the FAANG stocks (The acronym expanded to include Apple (AAPL)).

2020: FAAGM vs. BEACH

The coronavirus pandemic of 2020 only amplified large-growth's primacy. The evolving acronym of market leaders (which sometimes swapped out Netflix for Microsoft (MSFT) to become FAAGM) only benefited from the trends accelerated by the pandemic. Society has become wholly reliant on technology for work, school, and shopping.

Morningstar US Market Barometer 2020: Through October 31

	US Market 3.50%	Value	Core	Growth
		-16.96	0.90	25.73
Large	5.55	-15.67	3.06	22.07
Mid	-0.29	-18.72	-4.10	22.92
Small	-7.43	-21.58	-14.26	15.19

Meanwhile, 2020's economic losers seemed to cluster on the value side of the Morningstar Style Box and lower down the capitalization spectrum. The energy sector has been hit by falling demand. Banks battle low interest rates and loan losses. Real estate has suffered the effects of societal shutdowns. A new acronym, BEACH, was coined for the market's pandemic victims--booking, entertainment, airlines, cruises, and hotels. As a result, the gap between growth and value for the first three quarters of 2020 was the largest since the dot-com bubble peak in 1999.

Then came the week of Nov. 9. In what my colleague Russ Kinnel called "a dramatic reversal in the

market,” small-value stocks skyrocketed. Again, the market is expecting stimulus from a new administration--the so-called “reflation trade.” But it’s not just about the election this time.
Pfizer (PFE) unveiled highly encouraging results for its COVID-19 vaccine, raising hopes of the pandemic’s end. Not only did Pfizer, the fifth largest constituent of the Morningstar US Value Index, take off, but so did the shares of many economically sensitive companies. Then Moderna (MRNA) announced successful vaccine results one week after Pfizer.

Morningstar US Market Barometer
November 1-13

		Value	Core	Growth
	US Market 7.35%	10.23	7.39	5.22
Large	5.75	8.23	6.38	3.67
Mid	10.45	13.63	10.62	8.18
Small	14.88	18.92	14.99	11.63

The market expects the BEACH stocks to be released from their pandemic hell. But will this be a more enduring cycle than in 2016?

In favor of a sustained shift are real fundamental drivers, including a strong forecast for U.S. economic recovery that doesn’t depend on the enactment of a policy agenda. Furthermore, equity valuations support serious upside among value stocks and smaller caps. According to Sekera’s analysis, two thirds of the stocks viewed as undervalued by Morningstar equity analysts as of Nov. 9 fall in the small-value, mid-value, or large-value segments of the market. The energy, consumer cyclical, and real estate sectors were viewed as rich with opportunity. On the flip side, large growth looks overvalued.

Of course, market inflection points are only obvious in retrospect. Value stocks have appeared undervalued for years. But as the 2020 whipsaw has demonstrated, markets can turn suddenly and sharply. It seems highly unlikely that the Morningstar Market Barometer of 2025 will show another long bull market for large-growth stocks.

7 Questions to Ask Before Buying Any Multifactor Fund

A closer look at the growing menu of multifactor strategies and a tool kit to sort through it.

Alex Bryan, CFA
Nov 17, 2020

The menu of multifactor funds has expanded considerably over the past decade. As the options have grown, so has investors' research burden. These funds are diverse and often among the most-complex index strategies on the market. While many of these strategies may sound similar, there are important differences in their approaches to portfolio construction, which often yield very different portfolios and performance. Most of these funds have disappointed in recent years, illustrating that diversification across factors with strong theoretical support isn't sufficient to guarantee strong performance. Morningstar’s passive strategies research team recently published a paper which provides a closer look at the growing landscape and outlines a framework to evaluate these funds' investment processes. Click here to view the full paper.

Key Takeaways

- The number of multifactor funds has grown considerably over the past decade, though there are signs the market is maturing.
- Multifactor funds' share of the strategic-beta market has held steady at between 4% and 6% for most of the past decade. This small market share is likely due to these funds' complexity and weak performance, which have hindered adoption.
- Most multifactor funds have underperformed their respective Morningstar Category indexes over the trailing three and five years through September 2020.
- Morningstar's framework for evaluating multifactor funds' approaches to portfolio construction includes several questions worth asking before buying any multifactor fund.

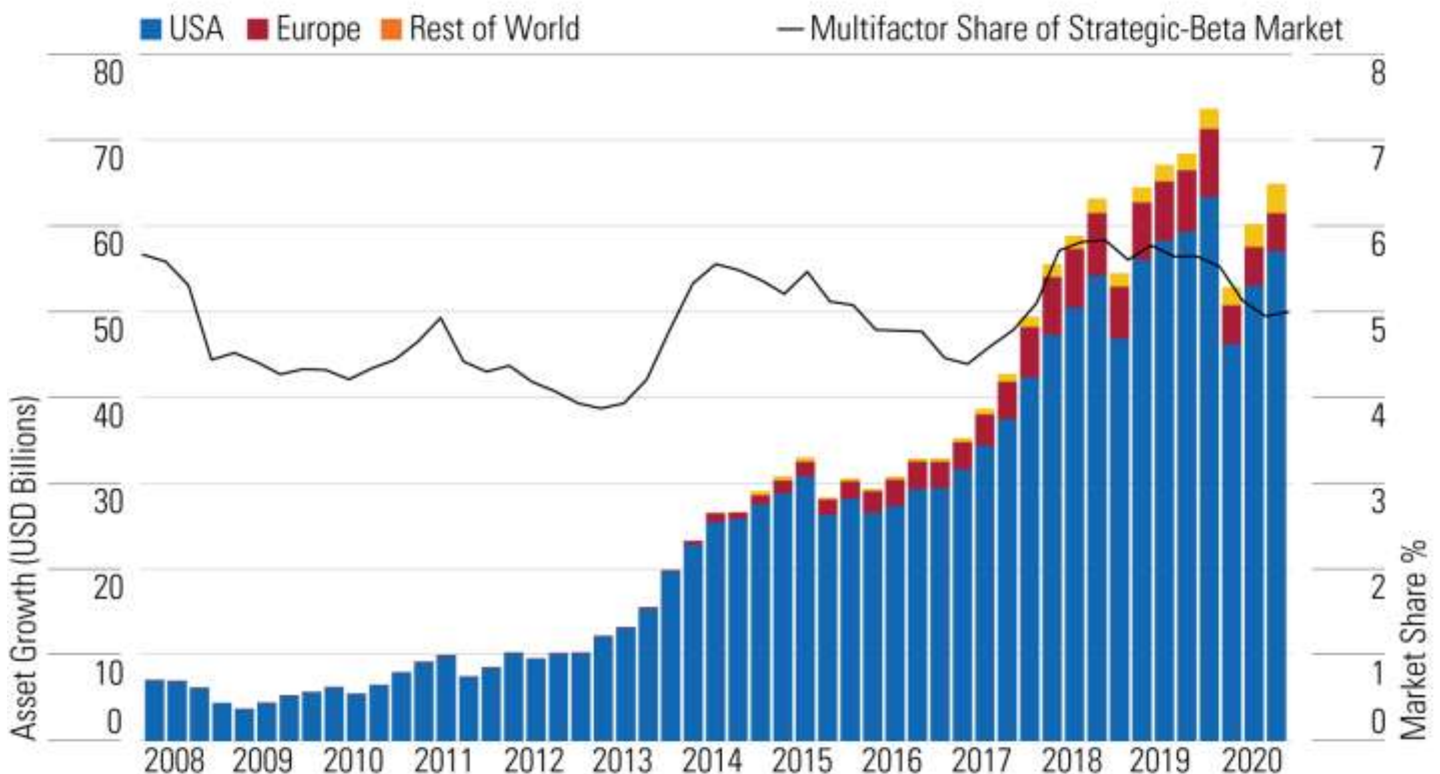
Diversification Benefits

The case for multifactor funds is the case for diversification. Just as it's prudent to diversify across asset classes, sectors, regions, and securities, it's a smart idea to spread bets across multiple factors that each have a good chance of long-term success. Doing so can reduce risk and make it easier to stick with these factors through their inevitable rough patches.

A Growing, But Maturing Landscape

Interest in multifactor funds has grown over the past decade. Assets invested in multifactor index funds grew to $65 billion globally at the end of September 2020, up from $7 billion a decade earlier, as Exhibit 1 shows. Most of these assets were held in U.S.-listed funds, which accounted for $57 billion.

Exhibit 1



This growth rate was similar to that of the broader market for strategic-beta funds. Multifactor funds' share of this market has held has steady at between 4% and 6% for most of the past decade. Multifactor funds enjoyed an estimated $44 billion in net inflows over the past decade. However, flows turned negative over the trailing 12 months through September 2020, during which these funds shed $4.3 billion.

It's a bit surprising that these funds have gained as much traction as single-factor funds, as they are often more suitable as core holdings and take away the challenge of figuring out how to combine factors in a portfolio, which many investors are not well-equipped to tackle. These products' complexity has likely hindered adoption. They often more closely resemble quantitative active strategies than passive index portfolios. As such, investors often wait to see how these funds perform before buying them.

There are many multifactor funds vying for attention. The menu of funds has expanded considerably over the past decade. At the end of September 2020, there were 294 multifactor funds on the market, up from 45 at the end of 2010. Most of these funds haven't been on the market long. Only 79% of the multifactor funds currently on the market were around five years ago.

However, new product growth has slowed in recent years, particularly in the U.S., as the market has become increasingly saturated. Fund closures exceeded launches through the third quarter of 2020, reflecting the saturation of the market, disappointing performance, and asset managers' efforts to shutter smaller funds.

Disappointing Performance

Most multifactor index funds have disappointed in recent years, which may help explain why these funds haven't grown faster than other types of strategic-beta funds. For example, of the 91 multifactor index funds listed in the U.S. at the end of September 2015, only 16% survived and outperformed their respective category benchmarks over the next five years. The funds in that group that survived lagged their category benchmarks by 2.4 percentage points annually on average during that period. The results weren't much better in other regions or over the most recent three-year period, as shown in Exhibit 2.

Exhibit 2

Most Multifactor Funds Have Underperformed

	Initial Fund Count	Mortality Rate (%)	Success Rate (%)	Avg Index Relative Return (%)
3 Year				
USA	151	14.6	21.9	-2.5
Europe	40	25.0	20.0	-1.8
Row	35	8.6	14.3	-2.2
5 Year				
USA	91	9.9	16.5	-2.4
Europe	17	11.8	47.1	-0.6
Row	19	10.5	15.8	-1.8

Source: Morningstar Direct, Analyst Calculations. Data through Sept. 30, 2020.

Much of this underperformance is due to the poor performance of value (and small size in the U.S.), which many of these funds lean into. While these funds' inclusion of other factors tended to partially offset this performance drag, it often wasn't enough to overcome it. This demonstrates factor diversification doesn't eliminate the risk of underperformance, even over lengthy periods.

While different multifactor funds may often seem alike, there was considerable dispersion in their performance (and holdings). These funds often differ with respect to the factors they target, how they measure and combine those factors, and how aggressively they pursue them.

Framework for Evaluating Portfolio Construction

Multifactor funds are diverse, but the key questions investors should ask to evaluate these strategies are the same. The following framework offers a useful way to compare multifactor funds.

1. What's the fund's starting point?

This is the selection universe that a fund winnows down to build its portfolio, which is typically a broad index. This is often a good benchmark for the fund's performance. It may also offer insight into the fund's potential to outperform.

The payoff to most investment factors has historically been the greatest among the smallest stocks, likely due to greater mispricing in that segment. So--all else equal--funds that include small-cap stocks in their selection universe likely have greater room to outperform (or underperform) than funds that are limited to large- and mid-cap stocks.

2. Which factors does the fund target?

There are only a handful of factors that truly matter for stock investors. These include value, momentum, quality, low volatility, and small size. While there are myriad other factors, they either are not widely accepted, not investable at scale (like illiquidity), or just repackage one or more of these core factors. It is best to stick to funds that target a combination of the core factors.

It's also prudent to look for complementary factor pairings. For example, value tends to work well when momentum doesn't, and vice versa. Similarly, quality's returns relative to the market are negatively correlated with small size.

3. How does the fund measure its targeted factors?

There are many ways to measure stocks' exposure to each factor. Rarely is one definition clearly superior to others. What matters is that the chosen metrics are:

- Simple
- Transparent
- Clearly representative of the investment style
- Diversified

The specific metrics chosen tend to move the needle less than whether the fund measures each stock's factor characteristics relative to its sector peers or the entire universe. A sector-relative approach improves comparability and leads to less-pronounced sector biases, which can be a source of uncompensated risk. The drawback is that it may reduce the fund's factor purity, causing it to own stocks with weaker absolute factor characteristics than it would if it measured each stock against the entire universe.

4. How does the fund combine its targeted factors?
There are two main approaches to combining multiple factors in a portfolio: considering factors separately (mixing) or considering them jointly (integration). Funds that follow the mixing approach split their portfolios into individual sleeves that each target a distinct factor.

The mixing approach is simple and makes it easy to gauge the impact of each factor on the fund's performance. The drawback is it tends to dilute the fund's overall factor exposures because there is usually little overlap between the holdings in the different sleeves.

Funds that use the integration approach can achieve stronger factor exposures. They pursue stocks with the best overall combination of factor characteristics. This allows them to allocate the entire portfolio to stocks with exposure to the targeted factors.

The downside of the integration approach is that it can lead to greater active risk, which increases both the potential for outperformance as well as underperformance. It is also more complex than the mixing approach, making it harder to attribute portfolio performance to distinct factors.

5. How strong are the fund's factor tilts?
Funds with greater exposure to their targeted factors have greater potential to outperform the market than their less aggressive counterparts when those factors are in favor and greater risk of underperformance when they are not. Portfolios with higher thresholds for stock selection and more frequent rebalancing should have higher factor exposures than those with less demanding criteria and longer periods between updates.

The Morningstar Factor Profile, which is available for all equity funds, makes it easy to view how each fund's factor exposures compare against its peers, based on the most recent holdings data.

6. Do the fund's factor tilts wash out, or does one factor dominate?
If a fund's factor exposures largely offset, it probably won't benefit much when any one of those factors pays off. Offsetting is more likely if the fund follows the mixing approach to combining factors or takes little active risk. It is rare that all of a fund's factor exposures offset. But often, one or two factors have greater influence on the portfolio than the others. If that is the case, the portfolio may not be as well-diversified as it first appears. Small size and low volatility often have greater sway on a portfolio than other factors for funds that include them.

Some funds intentionally place more emphasis on one factor than another. If that aligns with investors' desired exposure, it's not necessarily bad. However, many funds have unintentional biases to certain factors, which limits factor diversification and can have a considerable impact on performance. Be aware of these potential biases before selecting a multifactor fund.

7. Are there any constraints on the portfolio?
The most common portfolio constraints applied by multifactor funds include limits on:

- Sector weightings
- Stock weightings
- Country weightings
- Risk
- Turnover

These constraints can help improve diversification, reduce risk, and curb transaction costs. While they also limit a portfolio's exposure to the factors it targets, that's often a worthwhile tradeoff.

No Silver Bullet
Even the best multifactor funds aren't immune to lengthy stretches of underperformance. It's important to be selective and patient.

Positions

PE - Announced on 10/20 that it will be acquired by PXD. We sold for 3 clients on 11/23 @ 12.545: