Patience

Will ours finally be rewarded? From Friday's Global Investment Strategy:

Pivot To Value

... Four weeks ago ... we made the case that investors should pivot away from growth stocks towards value stocks. The report generated quite a bit of interest from readers. Below, we review and elaborate on some of the issues raised in a Q&A format.

Q: Being long value stocks relative to growth stocks has been a widowmaker trade for more than a decade. Why do you think we have reached an inflection point?

A: Value stocks are cheaper now compared to growth stocks than at any point in history – even cheaper than at the height of the dotcom bubble (**Chart 4**).

CHART 4
Value Stocks Are Extremely Cheap Relative To Growth Stocks

* BASED ON RELATIVE PRICE/BOOK, PRICE/EARNINGS, AND DIVIDEND YIELDS.
SOURCE: IBES / THOMSON REUTERS AND MSCI INC. (SEE COPYRIGHT DECLARATION).

Admittedly, valuations are not a good timing tool. One needs a catalyst to unlock those valuations. Good news on the virus front may end up being such a catalyst. The "pandemic trade" benefited tech stocks, which are overrepresented in growth indices.

It also favored health care stocks, which are similarly overrepresented in growth indices, at least globally. The "reopening trade" will support companies such as banks, hotels, and transports that were crushed by lockdown measures and which are overrepresented in value indices.

... retail sales at physical stores are rebounding, while online sales growth is coming down from highly elevated levels. Bank of America estimates that US e-commerce penetration doubled in just a few short months earlier this year. Some "reversion to the trend" is likely, even if that trend does favor online stores over the long haul.

Meanwhile, PC shipments soared during the pandemic as companies and workers rushed out to buy computer gear to allow them to work from home. To the extent that this caused some spending to be brought forward, it could create an air pocket in tech demand over the next few quarters.

Q: How are investors positioned towards value versus growth?

A: According to the September BofA Global Fund Manager Survey, tech and pharma were the two sectors with the largest reported overweights. Thus, there is significant scope for money to shift out of these sectors.

Q: What about the overall macro environment underpinning growth and value?

A: While the relationship is far from perfect, value stocks tend to outperform growth stocks when the US dollar is weakening (**Chart 7**). Recall that growth stocks did very well during the late 1990s, a period of dollar

CHART 7
Value Stocks Tend To Outperform Growth Stocks When The US Dollar Is Weakening

* IN US DOLLARS. SOURCE: MSCI INC. (SEE COPYRIGHT DECLARATION).
** SOURCE: FEDERAL RESERVE.

CHART 8
Value Stocks Also Tend To Do Best When Global Growth Is Accelerating

* SHOWN SMOOTHED. SOURCE: MSCI INC. (SEE COPYRIGHT DECLARATION).
** INCLUDES 23 COUNTRIES, SHOWN AS A DEVIATION FROM TREND. BASED ON BCA RESEARCH CALCULATIONS.

strength. In contrast, value stocks outperformed between 2001 and 2007, a period during which the dollar was generally on the back foot. As we have spelled out in past reports, we expect the dollar to weaken over the next 12 months, which should benefit value stocks.

Value stocks also tend to do best when global growth is accelerating (**Chart 8**). Provided that governments maintain adequate levels of fiscal support and a vaccine becomes available by early next year, global GDP should bounce back swiftly.

Q: Won't lower real bond yields favor growth stocks?

A: By definition, growth companies generate more of their earnings further in the future than value companies. As such, a decline in real yields will tend to increase the present value of cash flows more for growth companies than for value companies.

We do not expect real yields to rise significantly over the next two years. However, given that real yields are already deeply negative in almost all countries, they probably will not fall either.

Q: You seem to be making the cyclical case for the outperformance of value stocks. But what about the secular case? It appears to me that the stronger earnings growth displayed by growth stocks will ultimately translate into higher long-term returns.

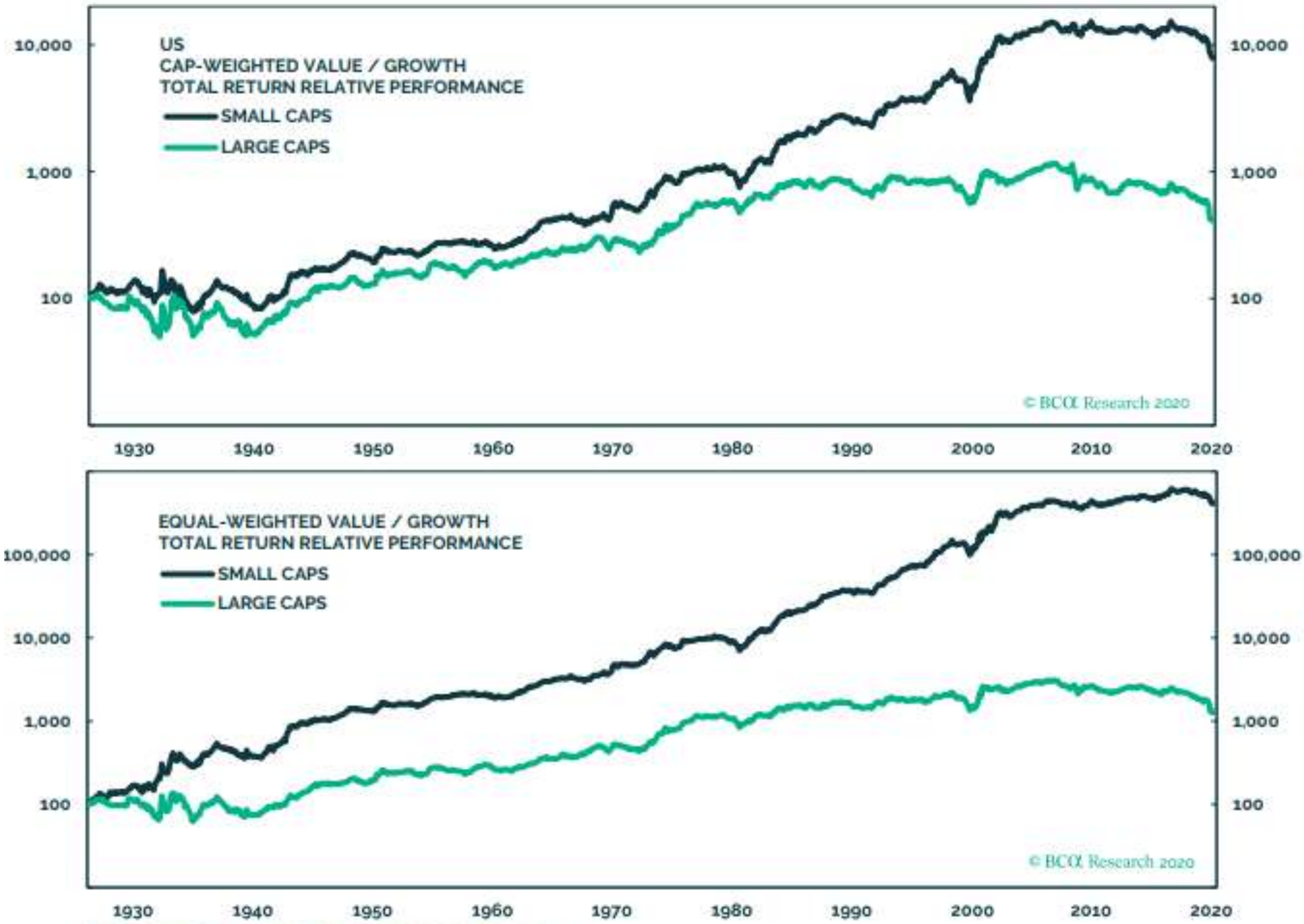
TABLE 2
Small Caps Vis-A-Vis Large Caps: Comparison of Total Returns

			ANNUALIZED TOTAL RETURNS (%)		
			1926-2020	Post-1970	Post-2007
CAP-WEIGHTED	Small Caps	Value	14.0	14.1	3.3
		Growth	8.9	7.8	8.5
		Value minus Growth	5.2	6.4	-5.2
	Large Caps	Value	11.5	11.7	3.3
		Growth	9.9	10.7	11.6
		Value minus Growth	1.6	1.1	-8.3
EQUAL-WEIGHTED	Small Caps	Value	17.9	17.0	4.8
		Growth	8.0	6.6	5.3
		Value minus Growth	10.0	10.4	-0.5
	Large Caps	Value	12.6	12.8	3.8
		Growth	9.6	10.4	10.7
		Value minus Growth	3.0	2.3	-6.9

SOURCE: FAMA-FRENCH DATA LIBRARY AND BCA RESEARCH CALCULATIONS.

CHART 9

Value Stocks Have Outperformed Growth Stocks By A Wide Margin Over The Past Century



SOURCE: FAMA-FRENCH WEBSITE. DATA IS AVAILABLE UNTIL JUNE 2020.
NOTE: ALL SERIES REBASED TO JUNE 1926=100.

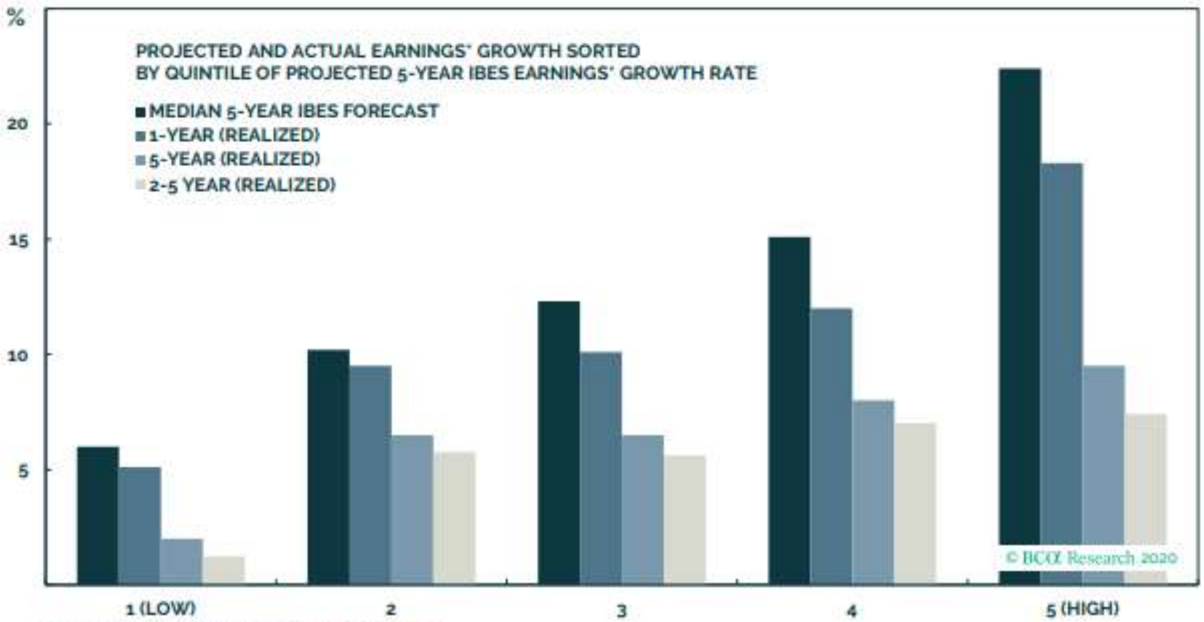
A: Historically, that has not been the case. As **Table 2 and Chart 9** illustrate, value stocks have outperformed growth stocks by a wide margin over the past century. In particular, small cap value has clobbered small cap growth.

How did value stocks manage to triumph over growth stocks if, as you say, growth stocks usually experience faster earnings growth? The answer has to do with what is priced in and what is not. If everyone expects a company's earnings to grow next year, this will already be reflected in its share price. It is only unanticipated earnings growth that should move share prices.

For the most part, both analysts and investors have tended to overextrapolate near-term earnings growth. As we discussed in a special report titled "QuantBased Approaches To Stock Selection And Market Timing," while analysts are generally able to predict which companies will display superior earnings growth over the next one-to-two years, they systemically overestimate earnings growth on longer-term horizons (**Chart 10**). As a result, investors tend to overpay for growth, causing growth stocks to lag value stocks.

Q: That may have been true historically, but it seems that more recently, investors have been guilty of underpaying for growth.

CHART 10
A Mug's Game



* INCOME BEFORE EXTRAORDINARY ITEMS; ANNUALIZED.
SOURCE: LOUIS K. C. CHAN, JASON KARCESKI, AND JOSEF LAKONISHOK, "THE LEVEL AND PERSISTENCE OF GROWTH RATES," THE JOURNAL OF FINANCE, VOL. 58, NO. 2 (2003): 643-684.

A: Yes and no. If one looks at the period between 2007 and 2017, the superior performance of growth stocks was broadly matched by their superior earnings growth. As a result, relative P/E ratios did not change much. Since 2017, however, the P/E ratio for growth indices has soared relative to value indices (**Chart 11**).

Q: What has happened since 2017 that has caused growth stocks to become so much more expensive?

A: FANG, FAANG, FANGMAN, whatever acronym you want to use, it was mainly a story about investors becoming infatuated with mega cap tech stocks. After seeing these companies beat earnings estimates quarter after quarter, investors decided that they deserve to trade at much higher valuation multiples.

Q: This still leaves open the question of why mega cap stocks were able to grow earnings so rapidly?

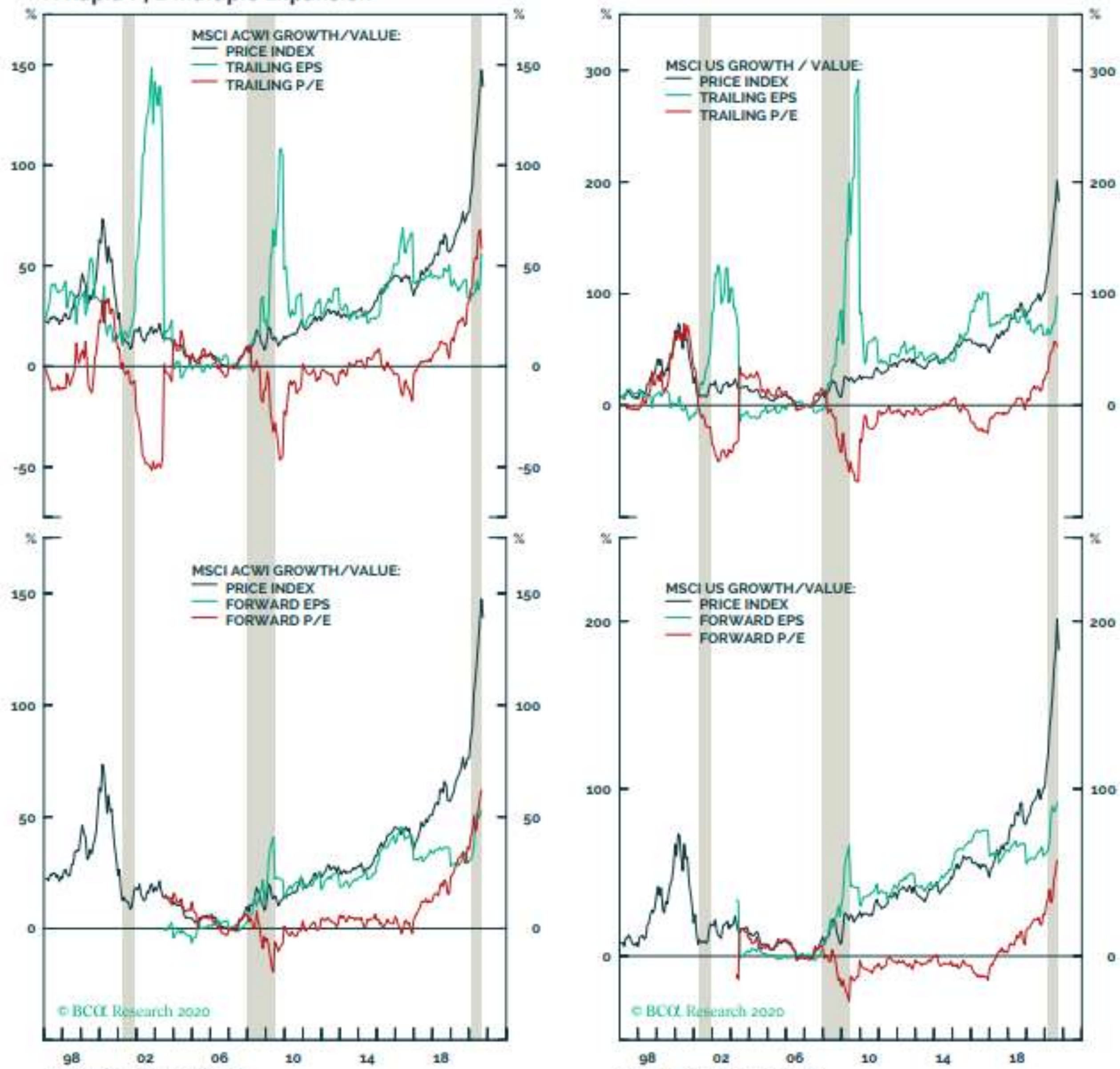
A: Two explanations come to mind. First, tech companies often gain from so-called network effects: The more people there are who use a particular tech platform, the more attractive it is for others to use it. Second, tech companies benefit from scale economies. Once a piece of software has been written, creating additional copies costs 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.

Q: It seems this process could go on indefinitely?

A: Not indefinitely. No company can control more than 100% of its market. There is also a limit to how big the overall market can get. 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. Together, sites owned by Google and Facebook generate about 60% of all online advertising revenue.

CHART 11

The Outperformance Of Growth Stocks Over The Past Three Years Has Been Turbocharged By A Rapid P/E Multiple Expansion



NOTE: REBASED TO JAN. 2007 = 0%.
SOURCE: REFINITIV/IBES AND MSCI INC. (SEE COPYRIGHT DECLARATION).
NOTE: SHADING DENOTES NBER-DESIGNATED RECESSIONS.

NOTE: REBASED TO JAN. 2007 = 0%.
SOURCE: REFINITIV/IBES AND MSCI INC. (SEE COPYRIGHT DECLARATION).
NOTE: SHADING DENOTES NBER-DESIGNATED RECESSIONS.

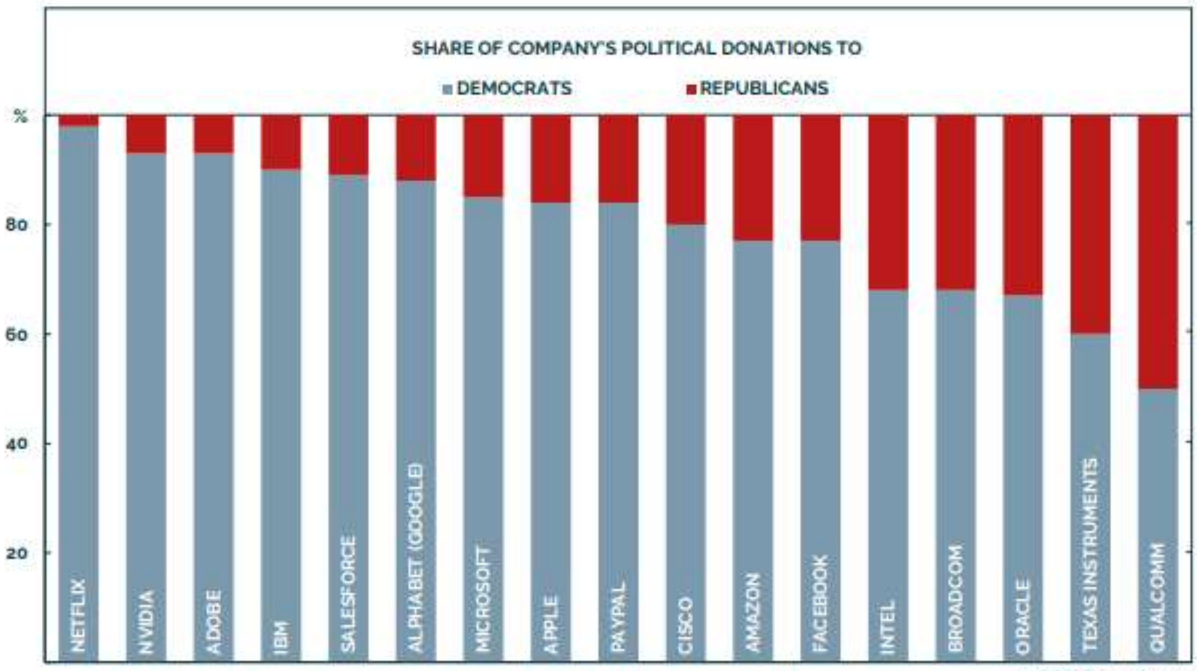
Q: These companies have plenty of cash. Can't they try to enter new types of businesses if they want to keep growing?

A: They can try, but there is no guarantee they will succeed. Kodak was one of the pioneers in digital photography. However, it could never really reinvent itself and ended up fading into oblivion. Moreover, while first-mover advantage is a powerful force, it is not invincible. At one point during the dotcom bubble, Palm's market capitalization was over six times greater than Apple's. The Blackberry superseded the PalmPilot; the iPhone, in turn, superseded the Blackberry. History suggests that many of today's technological leaders will end up as laggards.

Q: And I suppose government policy could also turn less friendly towards tech?

A: That is a definite risk. Republicans have been cheap dates for tech companies. Republican politicians have showered tech companies with tax cuts and allowed them to exploit a variety of loopholes in the tax code. They also kept tech regulation to a minimum. All this happened despite the fact that many tech leaders have publicly panned conservative viewpoints, while tech company employees have rewarded Democratic politicians with the lion's share of campaign donations (**Chart 14**). Going forward, Republicans are likely to sour on big tech. According to a recent Pew Research study, more than half of conservative Republicans favor increasing government regulation of tech companies. Tucker Carlson, a leading indicator for where the Republican party is heading, has frequently lambasted tech companies on his highly popular television show.

CHART 14
Tech Company Employees Donate Heavily Towards Democrats



SOURCE: "THE MOST LIBERAL AND CONSERVATIVE TECH COMPANIES, RANKED BY EMPLOYEES' POLITICAL DONATIONS," *CNBC*, JULY 2, 2020.

For their part, the Democrats are moving to the left. Alexandria Ocasio-Cortez, a leading indicator for the Democratic party, has voiced her support for Senator Elizabeth Warren's calls to break up big tech. She has also accused Amazon of paying starvation wages, adding that "If Jeff Bezos wants to be a good person, he'd turn Amazon into a worker cooperative."

Q: The political climate for tech companies may be souring. But couldn't one say the same thing about banks and energy companies, which are overrepresented in value indices?

A: One difference is that tech companies trade at premium valuations, while banks and energy companies trade near book value.

Another difference is that banks have already felt the wrath of regulators. Thanks to Dodd-Frank and pending Basel III regulations, banks today function more like utilities than like the casinos of yesteryear.

While private credit growth is unlikely to return to its pre-GFC pace, banks will still profit from a revival in global growth and increasing consolidation within their industry. Stronger global growth should also allow for modestly higher nominal bond yields and somewhat steeper yield curves. This will benefit bank shares.

As far as energy stocks are concerned, again, we need to benchmark our views to what the market expects. Oil is not going back above $100 per barrel anytime soon, but it does not need to for energy stocks to go up. Bob Ryan, BCA's chief commodity strategist, sees Brent averaging $65/bbl in 2021, $19 above what is currently priced in forward markets.

Q: What about materials and industrial stocks? They are also overrepresented in value indices.

A: Both materials and industrials tend to outperform the broader market when global growth accelerates (Chart 18). To the extent we expect global growth to rise, this is good news for these two sectors. They also trade at attractive valuations.

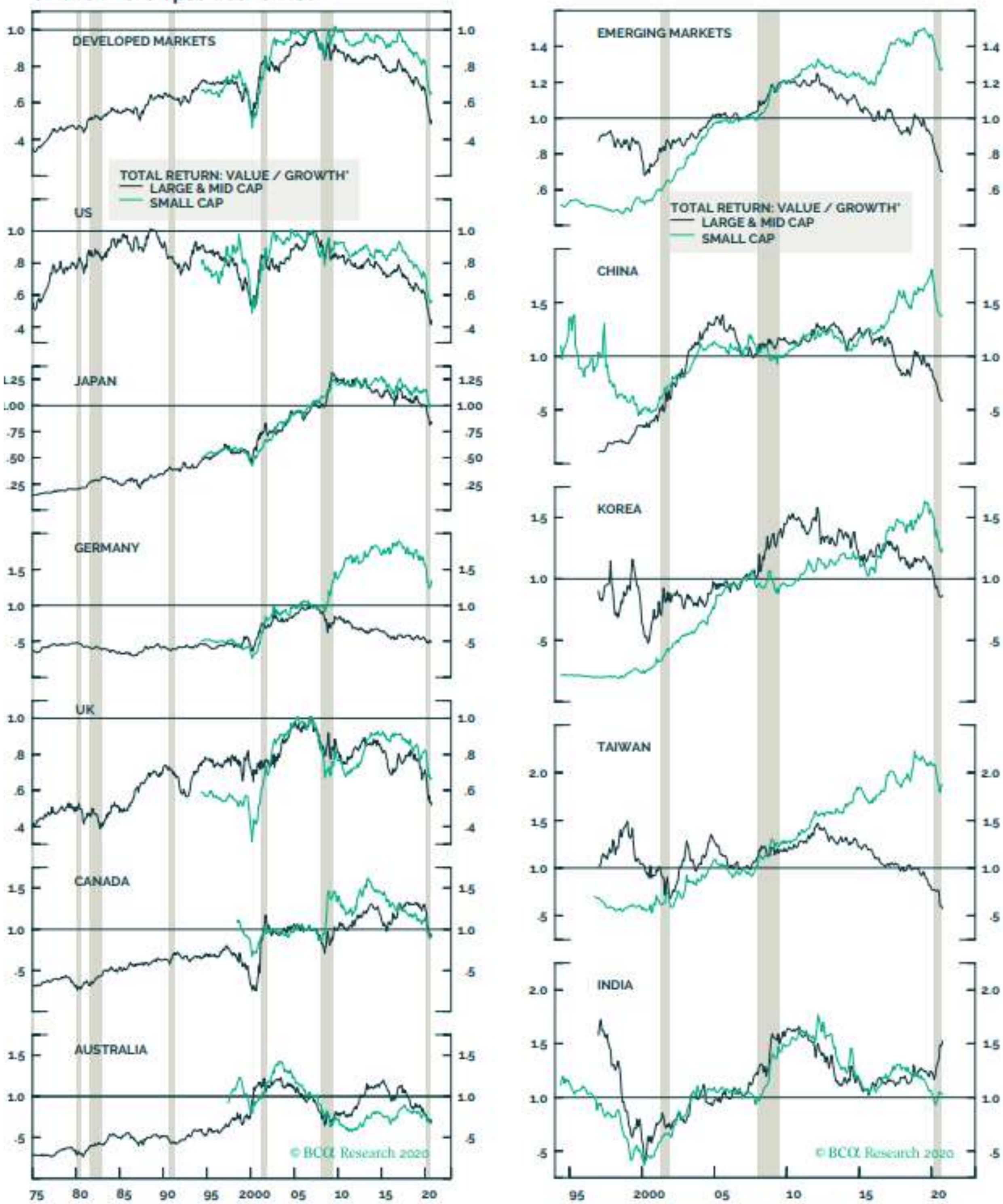
Q: How does China figure into this value/ growth debate?

A: As we saw during the 2001-2007 period, strong Chinese demand for commodities and industrial goods benefits value indices.

Even though trend Chinese GDP growth has decelerated over the past decade, the Chinese economy is five-times as large as it was back then. In absolute terms, Chinese consumption of most metals continues to increase.

CHART 21

Historically, The Value Premium Has Been Greater In The Small Cap Realm In Emerging Markets And Smaller Developed Economies



* SOURCE: MSCI INC. (SEE COPYRIGHT DECLARATION).
NOTE: ALL SERIES REBASED TO DEC. 2006 = 1.
SHADING DENOTES NBER-DESIGNATED RECESSIONS.

... Chinese GDP would need to grow by about 6% per year over the next decade to keep output-per-worker on track to converge with, say, South Korea by the middle of the century. Thus, Chinese demand for natural resources and machinery is unlikely to weaken anytime soon.

Q: Let's wrap up. What final tips would you give investors who want to pivot towards value?

A: There are a number of ETFs that track value indices. We expect them to outperform the broad indices over the coming years.

For investors who want even higher returns, a selective approach would help. Distinguishing between value stocks and value traps is not easy. True value stocks have often congregated in the shadows of the market, where there is limited analyst coverage and thin institutional ownership.

The small-cap sector offers more opportunities for finding such mispriced stocks. Hence, it is not surprising that historically, the value premium has been greater in the small cap realm. The same is true for emerging markets and smaller developed economies (**Chart 21**). Thus, investors who want to accentuate their returns should pay special attention to smaller value companies outside the US.

Even Great Investments Experience Massive Drawdowns

By Larry Swedroe August 20th, 2020

Two of legendary investor Warren Buffett's great contributions have been that he has taught investors to buy cheap, profitable companies and that he has preached the importance of patience and discipline, avoiding the noise of the market. He famously said, "Investing is simple, but not easy." Or as Wes put it, "Even God Would Get Fired as an Active Investor." (A study that we've shared.)

If his strategy of buying profitable value stocks is simple, why did he proclaim it is not easy? I believe it is because he understood that all strategies that invest in risky assets experience long periods of poor performance. And most investors are unable to withstand the stress created by such periods. At some point, the drawdown, whether it's in absolute or relative terms, becomes large enough that it causes investors to reach what I call their "GMO" point—the point where their stomach screams, "Get me out!" That leads to the loss of discipline and panic selling, which is why Buffett has advised investors: "If they insist on trying to time their participation in equities, they should try to be fearful when others are greedy and greedy only when others are fearful." (Most leave out the first portion of his famous quote.) In other words, buy after long periods of underperformance and sell after periods of outperformance! Unfortunately, that is exactly the opposite of what so many investors do.

Examining the historical evidence on drawdowns demonstrates how important it is to stay disciplined, adhering to your investment strategy. As you review the evidence, keep in mind Buffett's warning about trying to time the market. And remember that if active managers were able to time their exits and entrees, we would see persistent evidence of their ability to outperform. However, we don't have any such evidence. We'll begin by reviewing the evidence on the riskiness of equities.

To appreciate the riskiness of equity investing, consider that while from 1926 through July 2020 the S&P 500 Index returned 10.2% per year, it did so while experiencing volatility of 18.7%. In addition, it experienced six crashes of at least 33%:

- September 1929-June 1932 (loss of 83.2%).
- April 1937-March 1938 (loss of 49.7%)
- January 1973-September 1974 (loss of 42.6%).
- March 2000-September 2002 (loss of 38.3%).
- June 2007-February 2009 (loss of 50.0%).

- February 4, 2020-March 23, 2020 (loss of 33.8%).

Since most investors are risk-averse, the potential for such great losses explains why the equity risk premium (market beta) has been in excess of an annual average of 8% a year since 1926—investors require a large risk premium to accept the risks of large losses. And there have been three periods of at least 13 years when the S&P 500 Index underperformed riskless one-month Treasuries (1929-43, 1966-82 and 2000-12). In other words, in order to earn that 10.2% return, investors had to stay disciplined, avoiding panicked selling during market crashes and enduring periods as long as 17 years of underperformance.

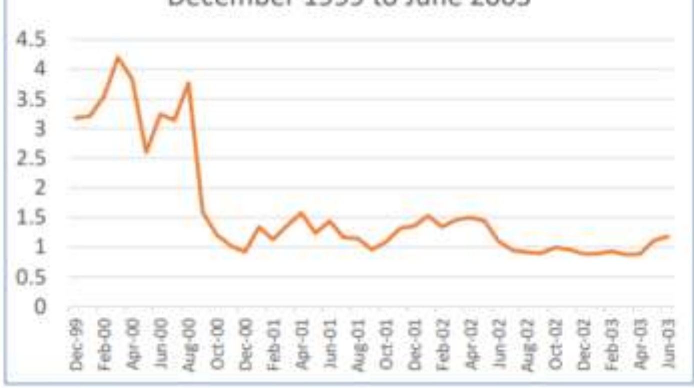
Having seen that the S&P 500 experienced six drawdowns of at least 33% and underperformed for three periods of at least 13 years, we now turn to examine the evidence on individual stocks. Hendrik Bessembinder contributes to the literature on the riskiness of stocks, and individual stocks in particular, with his July 2020 study "Extreme Stock Market Performers, Part I: Expect Some Drawdowns." This study, in which he examined the performance of the 100 most successful stocks/decades in terms of shareholder wealth creation, was a follow-up to his 2018 study "Do Stocks Outperform Treasury Bills?" Among his findings from the prior paper was that even at the decade horizon, a minority of stocks outperformed Treasury bills and less than 4% of single-stock strategies produced a holding period return greater than the value-weighted market. The results showed how risky individual stock ownership is, and why diversification is the investor's best friend. It also demonstrated how tempting it is to try to find those superstar stocks. It also helps explain why growth stocks have underperformed value stocks over the long term—investors seek out those few winning "lottery tickets," causing their valuations to become excessive. Thus, the stocks earn lower returns.

Figure 1: Apple End-of-Month Share Price, Adjusted for Dividends and Splits, December 1980 to December 2019

Bessembinder's new study covers the seven decades beginning in 1950. Following is a summary of his findings:

- Even the investments that created the most wealth for shareholders during a given decade experienced very substantive reversals along the way—within the highly successful decade, shareholders experienced drawdowns that lasted an average of 10 months and involved an average loss of 32.5%.
- During the immediately preceding decade, drawdowns for these highly successful stocks lasted an average of 22 months and involved an average cumulative loss of 51.6%—you had to stay the course, enduring those dramatic drawdowns to make sure you were still there to experience the great returns.

Figure 2: Apple End-of-Month Share Price, Adjusted for Dividends and Splits, December 1999 to June 2003



As a striking example, he presented the case of Apple (AAPL), which generated $1.64 trillion in shareholder wealth between January 1981 and December 2019, more than any other publicly-traded U.S. firm since 1926. Of this total, $1.47 trillion accrued during the most recent (2010-2019) decade. However, on no less than three occasions, Apple shareholders experienced drawdowns that exceeded

70%. These included a drawdown of 74.0% from May 1983 to August 1985, a drawdown of 79.7% from February 1992 to December 1997, and a drawdown of 79.2% from March 2000 to March 2003. Even in the most recent decade, during which Apple is at the top of the list, Apple shareholders endured a 39.5% drawdown between September 2012 and June 2013.

Figure 3: Amazon End-of-Month Share Price, May 1997 to December 2019

As another example, he cited the case of Amazon (AMZN). Between June 1997 and December 2019, equity investments in Amazon improved shareholder wealth by $865 billion, which is the fourth-highest total among the 26,168 firms that appear in the CRSP common stock database since 1926. Yet, between February 2000 and September 2001, Amazon shareholders experienced a drawdown of 91.3%. Bessimbinder also noted that while 56 of the 100 entries pertain to the most recent decade, General Motors, DuPont, Exxon Mobile, AT&T Corporation, General Electric and IBM all appear for wealth created during the 1950-59 decade. In other words, they were the FAANGs of their day.

Figure 4: Amazon End-of-Month Share Price, December 1998 to December 2001

Here are two more important examples, notable for the size of their drawdowns. Citigroup generated shareholder wealth of $137 billion during the most recent decade (69th on the list), but Citigroup shareholders endured a 97.0% drawdown from December 2006 to February 2009 of the prior decade. And EMC Corporation generated shareholder wealth of $149 billion during the 1990-1999 decade (56th on the list) but had an 87.5% drawdown from August 1987 to December 1989 of the prior decade.

Bessembinder concluded: “The most successful company investments in terms of wealth created for shareholders at the decade horizon also involved very substantial peak-to-trough drawdowns. Even those investments that are the most successful at long horizons typically involve painful losses over shorter horizons.” In other words, patience and discipline are required to achieve great returns.

Having reviewed the evidence on both the broad market in general, as represented by the S&P 500 Index, and individual stocks, we now turn to the evidence on drawdowns for the value premium. The historical evidence demonstrates that value investing has created wealth for disciplined investors for almost 100 years. We are looking to see if value’s drawdowns have been significantly different than those experienced by the broad market (the market beta premium) and individual stocks.

The Wild Ride of the Value Premium

- 1931-32 value drawdown was 30.8%.
- April 1937-May 1940 value drawdown was 36.4%.
- August 1979-November 1980 value drawdown was 28.3%.
- April 1989-December 1991 value drawdown was 25.0%.
- June 1998-March 2000 value drawdown was 36.6.

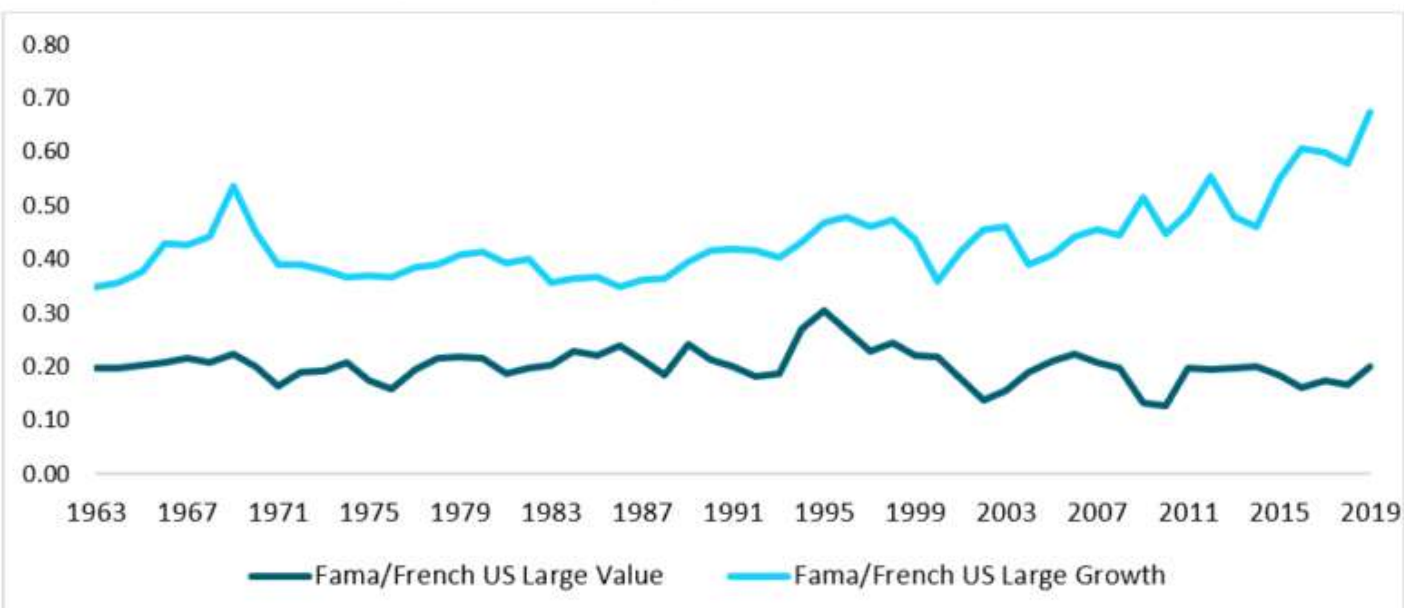
As you can see, the most recent drawdown of about 50% is only unusual in that it lasted a bit longer than any of the prior drawdown periods, and it was much deeper. That combination is what has created the greatest test of discipline value investors have ever faced. To help you stay disciplined, we can examine the evidence history provides on how value performed following those five prior drawdowns.

- After underperforming growth by 16.8% per annum (total drawdown of 30.8%) from 1931 through 1932, from 1933 through 1936 value outperformed growth by 14.1% per annum (total outperformance of 93.5%).
- After underperforming growth by 13.3% per annum (total drawdown of 36.4%) from April 1937 through May 1940, from June 1940 through December 1949 value outperformed growth by 10.7% per annum (total outperformance of 165.9%).
- After underperforming growth by 22.1% per annum (total drawdown of 28.3%) from August 1979 through November 1980, from December 1980 through December 1988 value outperformed growth by 10.7% per annum (total outperformance of 133.6%).
- After underperforming growth by 22.0% per annum (total drawdown of 36.6%) from June 1998 through March 2000, from April 2000 through December 2006 value outperformed growth by 14.2% per annum (total outperformance of 145.3%). [1]

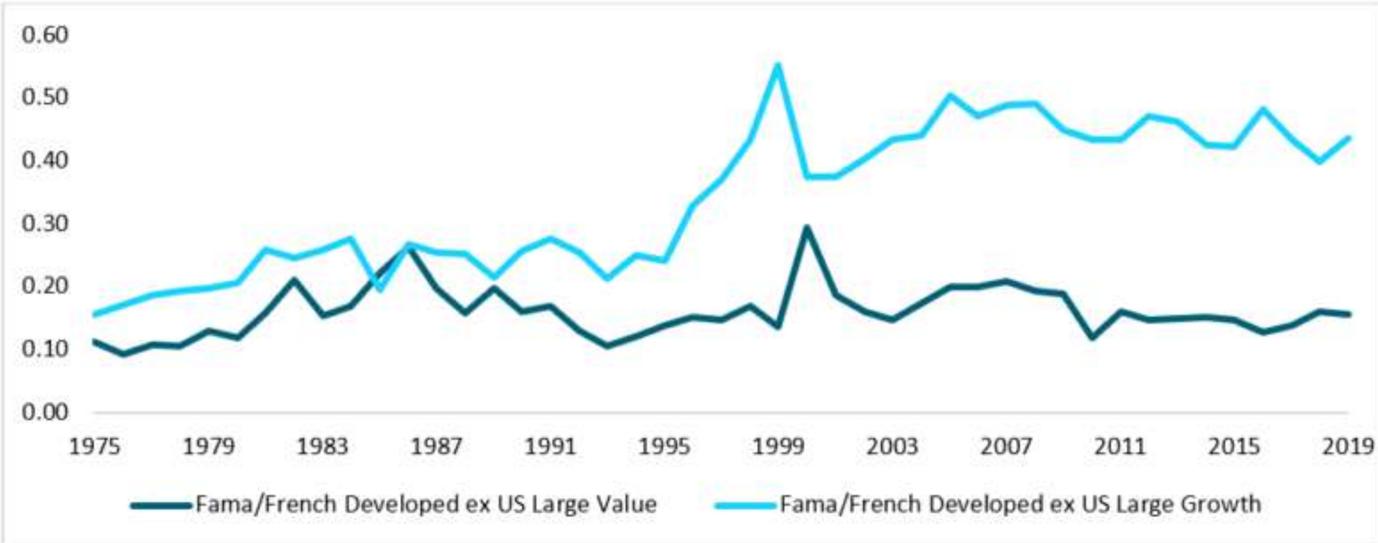
In each case, patience and discipline were well rewarded. In addition, what investors should be aware of is that value's recent underperformance is mostly explained by changing valuations—the expanding P/E ratios investors are willing to pay for growth stocks—and *not* a change in the "economic regime," with the profitability of growth companies improving relative to that of value companies. The following charts show that while there has been some improvement in the relative profitability of U.S. large growth companies versus large value stocks, this has not been the case in ... developed international markets ... where growth stocks have also outperformed.

Weighted Average Profitability

Panel A: US Large Value and Large Growth Stocks, June 1963-June 2019



Panel B: Developed Ex US Large Value and Large Growth Stocks, June 1975-June 2019



In USD. Source: CRSP, Compustat, and Bloomberg data calculated by Dimensional. Fama/French portfolios provided by Ken French Data Library. Profitability for June of year t is computed as operating income before depreciation and amortization minus interest expense scaled by book value for the last fiscal year-end in t-1. Weighted average profitability is the value-weighted average profitability based on June month-end market value. Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP.

In other words, none of the assumptions behind a belief in the value premium should have changed. It's just that investor willingness to pay for potential growth has increased, repeating the experience of the 1920s (the Roaring Twenties, when Westinghouse and RCA were the FAANGs of their day), the 1960s (the Nifty Fifty era, when Kodak, Polaroid, Xerox, and IBM were the FAANGs of their day), and the 1990s (the dot-com era). In addition, the dramatic drawdown has left the valuations of value stocks relative to growth stocks at the 100th percentile in the U.S. (the cheapest) and close to that in international and emerging markets. In other words, the ex-ante value premium is now much greater than the historical average. That said, it's important to note that cheap can get cheaper and markets can remain irrational for a long time—which Alan Greenspan discovered when in December 1996 he declared the market to be exhibiting "irrational exuberance." He was eventually right, but the market continued to defy him until the bubble finally burst in March 2000, more than three years later. That is why, when I am asked when the value premium will recover, my answer is always the same: My crystal ball is always cloudy. But that said, I caution that it will likely begin to recover the day after you lose discipline, give up and sell.

Summary

All strategies involving risk assets assume risk of failure, regardless of your investment horizon—there is no guarantee that you will ultimately be rewarded. If you doubt that, just ask investors in Japanese large-cap stocks, who from January 1990 through March 2020 earned no return, and that's even before considering inflation (note that value stocks returned 3% per annum). That's not a reason to avoid risk. It's a reason to diversify, avoiding the concentration of assets in any one risk basket, because that basket just might be the one that experiences decades of underperformance. As mentioned earlier, the S&P 500 has experienced three periods of at least 13 years when it underperformed totally riskless Treasury bills—another example of why investing is simple, but not easy.

In my 25 years of advising both individual and institutional investors, the biggest mistake they make is thinking that when it comes to judging the performance of an investment strategy, three years is a long time, five years is a very long time, and 10 years is an eternity. That belief leads them to ignore long-term evidence and abandon well-thought-out plans in order to chase performance. The result is that they end up buying high (after periods of outperformance) and selling low (after periods of poor performance). Buying high and selling low is not a prescription for success. Yet, it is the path so many investors follow when they fail to pay attention to the lessons history has provided. To paraphrase Spanish philosopher Santayana: “Those who don’t know their investment history are condemned to repeat it.”

As Warren Buffett noted, when it comes to investing, once you have ordinary intelligence, temperament—the ability to ignore the noise of the market—trumps intellect. Do you have the discipline and patience to follow Buffett’s advice?