NEUBERGER | BERMAN

DOUG KRAMER
Head of Institutional Equities and Multi-Asset Class

RAHEEL SIDDIQUI
Senior Investment Strategist, Global Equity Research

Equity Opportunities After Easy Money

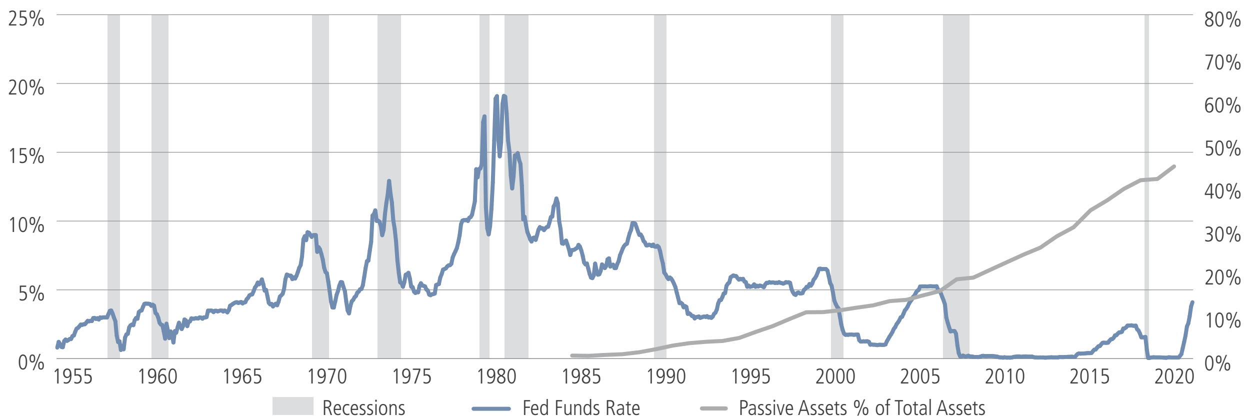
Years of cheap money helped fuel an historic bull run that swelled passive index vehicles—until rising inflation, tighter monetary policy and petering growth crashed the stock party in 2022. As we've said over previous months, we believe we've entered a new economic regime marked by higher rates and resurgent economic volatility—a fundamental reversal that, in our view, calls for even more thoughtful and selective portfolio positioning. In this paper, we discuss four major unfolding trends that equity managers have been historically well positioned to exploit.

Introduction

In 1974, Vanguard founder John Bogle launched the First Index Investment Trust, which allowed retail investors to track the entire S&P 500 Index at minimal cost. Three decades later, passively managed assets comprised roughly one-sixth of all equity assets under management (see chart below).

But the passive revolution really took off after the 2008 financial crisis, as low interest rates drove trillions of dollars into stocks, much of it flowing into passively managed funds. Today, passive assets account for 45% of the equity market, a staggering advance over such a short stretch.

FIGURE 1. PASSIVE MANAGEMENT TAKES FLIGHT IN AN UNPRECEDENTED ERA OF LOW INTEREST RATES



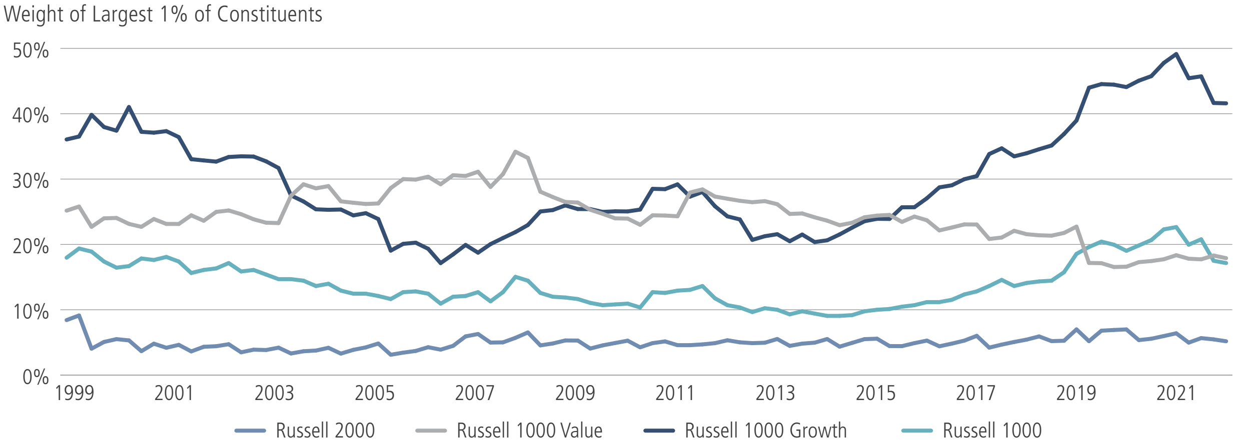
Source: Federal Reserve System, SimFund, and Factset. As of January 8, 2023.

Despite the rise of passive management, we believe this set-it-and-forget-it mindset can underperform when money isn't as cheap, risk premia aren't as low, and economic cycles aren't as long and cooperative. Ultimately, we believe these fundamental shifts play to the strengths of long-term active management.

One big reason, in our view, is the greater influence of a small sliver of large, growth-oriented companies within cap-weighted indices. For example, a look at the Russell 1000 Growth Index shows that 14 years of easy money have led to concentration levels not seen since the excesses of the 2000 dotcom bubble (see chart below). We think increased concentration can thwart diversification and exposure to optimal factor, sector and style tilts warranted by the broader business cycle.

FIGURE 2. PASSIVE INDICES HAVE GROWN MORE CONCENTRATED

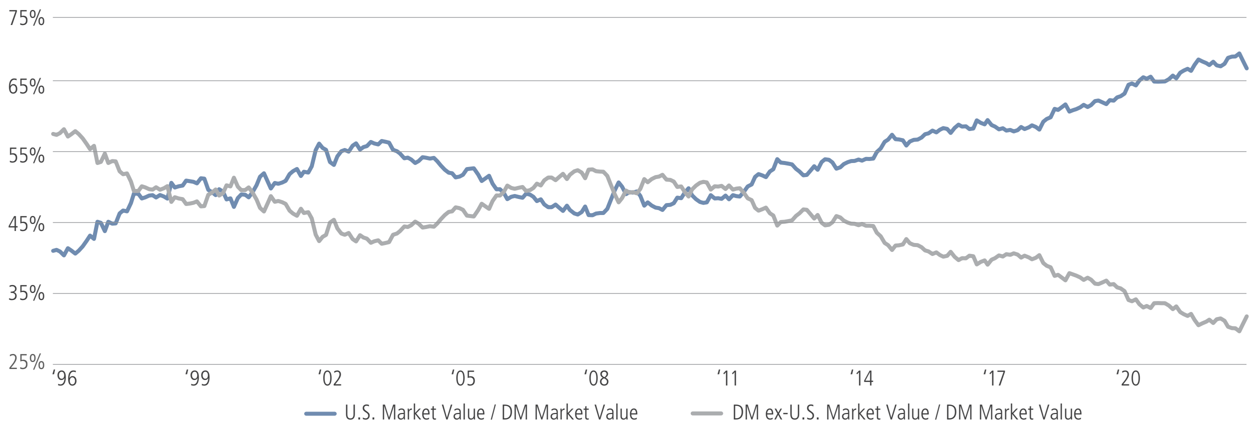
Weight of Largest 1% of Constituents



Source: Neuberger Berman Research and FactSet. Data as of January 25, 2023.

Rising concentration is also glaringly apparent when looking at the weight of U.S. companies within global equity indices. As shown in the chart below, market capitalization of U.S. stocks accounted for roughly half of the MSCI World Benchmark before the 2008 financial crisis; today, U.S. stocks command a dominant 70% share of the global benchmark.

FIGURE 3. THE U.S. VS. THE REST OF THE WORLD



Source: Neuberger Berman Research and FactSet. Data as of January 25, 2023.

That's why we believe the market may be entering a new golden age for disciplined managers who aim to generate alpha by identifying mispriced individual stocks and navigating broader—and choppier—macro shifts.

Specifically, we believe equity allocators now have an attractive opportunity to take advantage of four potential long-term trends:

- **The flight toward *even better* earnings quality.** Over the last six decades, companies with lower operating margins tended to underperform their more profitable peers; likewise, companies that relied on more aggressive accounting techniques suffered relative to their conservative competitors. We believe extra aggression is likely to earn extra punishment in both the current downturn and over the longer horizon.
- **Cheaper companies over growth stories.** Value stocks outpaced high-flyers for eight decades until easy money flipped the script. We believe higher domestic inflation and a potentially weakening U.S. dollar (now at historic highs) will likely usher in a period of global reflation which, in our view, often bodes well for value stocks.
- **Smaller companies over large players.** Similar to the "long-term value vs. growth" trend, small caps typically edged out large caps until the 2008 financial crisis. In our view, historical valuation differentials and dollar cycles now imply that small caps are ready for a revival.
- **Non-U.S. over U.S.** As the dollar weakens, non-U.S. developed markets (as well as emerging ones) tend to outperform.

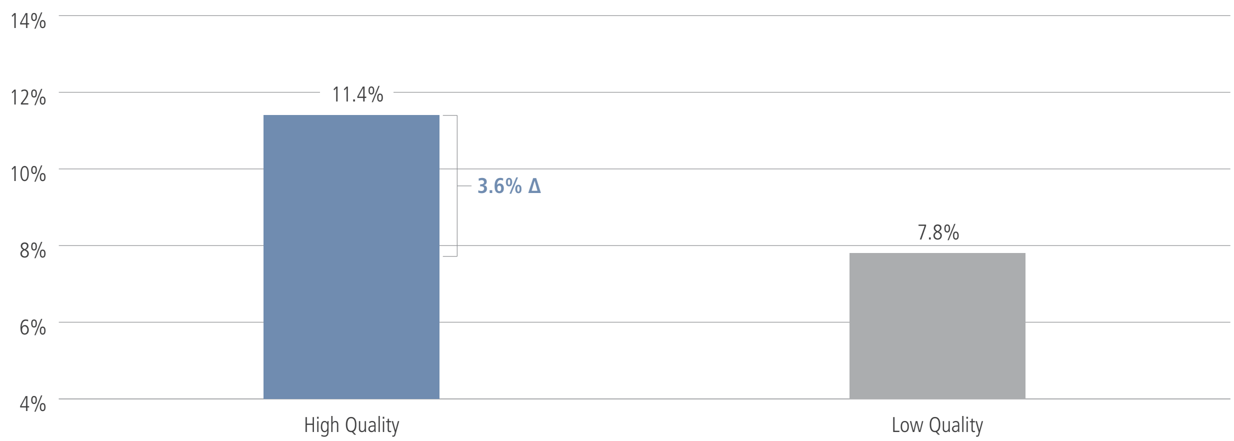
We explore each of these four trends in the following sections. And for a quicker, graphical representation of the first three, please see the chart included in the **Appendix**.

Earnings Quality Matters Even More Now

As Eugene Fama and Kenneth French firmly established, quality always matters—and it starts with operating profitability.

Over the last 60 years, higher-quality companies—meaning those with higher operating margins, as defined by [sales – *(cost of goods sold + SG&A + interest expense)]/book equity*—have outperformed lower-quality companies by 3.6% per year (see chart below). And during 13 out of 15 economic downturns since 1963, we find companies with top-quintile earnings quality outperformed those in the bottom quintile by a median of 15%.[1]

FIGURE 4. HIGHER QUALITY WINS OVER THE LONG TERM



Source: Bloomberg, Kenneth French data library. Analysis period from June 1963 to October 2022.

But the hunt for quality doesn't end with traditional metrics like return on equity.

While profits are the lifeblood of shareholder value, not all reported earnings are created equal. Aggressive use of accounting accruals—which essentially represent best-case financial assumptions and create disconnects between reported net income and actual cash flow—can lend a rosy hue to a company's reported numbers, thus calling their quality into question.

Aggressive accounting tends to proliferate as corporate optimism swells—a late-cycle development seen in the late-1990s, mid-2000s, and now. In fact, the use of accruals has never been more widespread in the last 30 years.

We believe aggressive accounting matters *even more* during economic downturns because accruals can quickly translate into write-offs and hammer equity returns. After years of ignoring aggressive accounting, it looks like investors are starting to pay attention, and we expect companies that lean heavily on accruals could suffer similar fates in the ongoing earnings-driven phase of the current downturn.

For more context, consider the following two charts.

The first captures the correlation between the prevalence of accruals among S&P 500 companies and the ISM Manufacturing PMI Index (a cyclical economic indicator). Note that accruals are measured as *(net income – operating cash flow)/assets,* meaning that smaller negative percentages suggest more aggressive accounting.

[1] Neuberger Berman Research; Institute for Supply Management; FactSet; Fama French Database. Analysis period from June 1963 to November 2022.

FIGURE 5. CORPORATE EARNINGS QUALITY AT 30-YEAR LOW

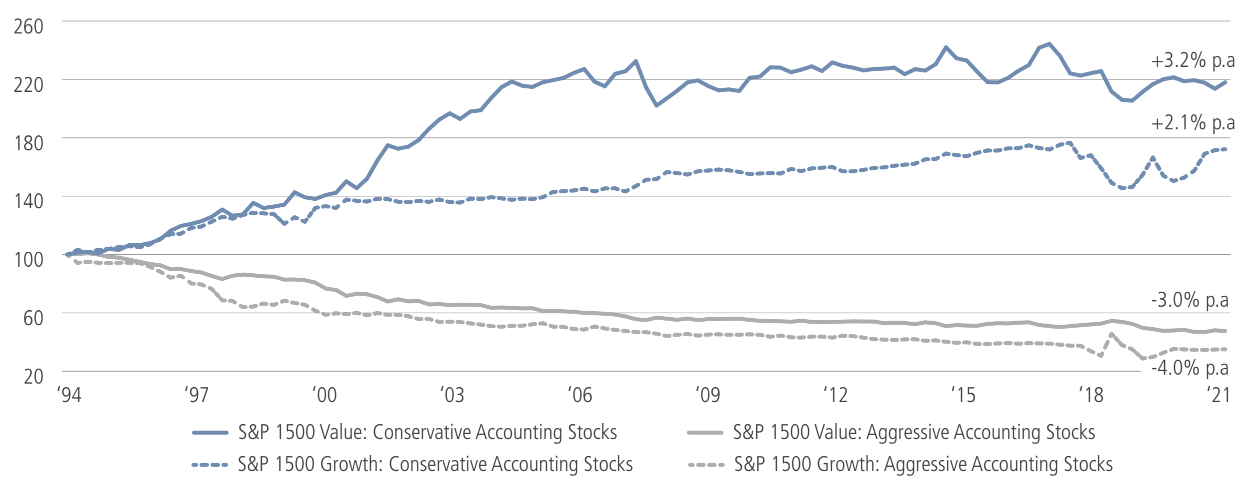
Source: FactSet, Piper Sandler, Neuberger Berman. Data as of December 31, 2022.

The chart illustrates that accruals lag the PMI's trajectory by approximately nine months. As economic growth slows, many accruals convert to write-offs, which causes accruals to fall. This process continues until growth begins to recover, which leads to the next build-up of accruals nine months later (and so on). As the chart shows, accruals are at a 30-year-high, while the PMI is well in descent—a harbinger of gloom, in our view, for companies with more aggressive accounting and poorer earnings quality.

The second chart (below) captures the damage wrought by aggressive accounting over time. Since 1995, companies with relatively conservative accounting have outperformed the S&P 1500 Value Index by 3.2% per year, while those that employ more aggressive techniques trailed the index by 3% per year. That same approximate 6% gap, it turns out, held true for growth stocks over the same period as well. (In everyday parlance, low earnings quality among value stocks translates into value traps; for growth stocks, it can lead to blowups.) We expect this performance gap to widen—for both value and growth stocks—as slowing growth meets historically elevated accruals during the anticipated recession and over longer-term, potentially more volatile economic cycles.

FIGURE 6. LOW EARNINGS QUALITY CAN SIGNAL A VALUE TRAP OR A BLOWUP

Relative Performance



Source: FactSet, Piper Sandler, Neuberger Berman. Data as of December 31, 2022. Information on historical observations about markets, asset or sub-asset classes is not intended to represent or predict future events. Historical trends do not imply, forecast or guarantee future results. **Past performance is no guarantee of future results.**

By their very construction, market-capitalization-weighted indices do not allow the flexibility to select companies with relatively conservative accounting. Active managers—both fundamental and systematic—can make that choice.

Ben Graham Strikes Back

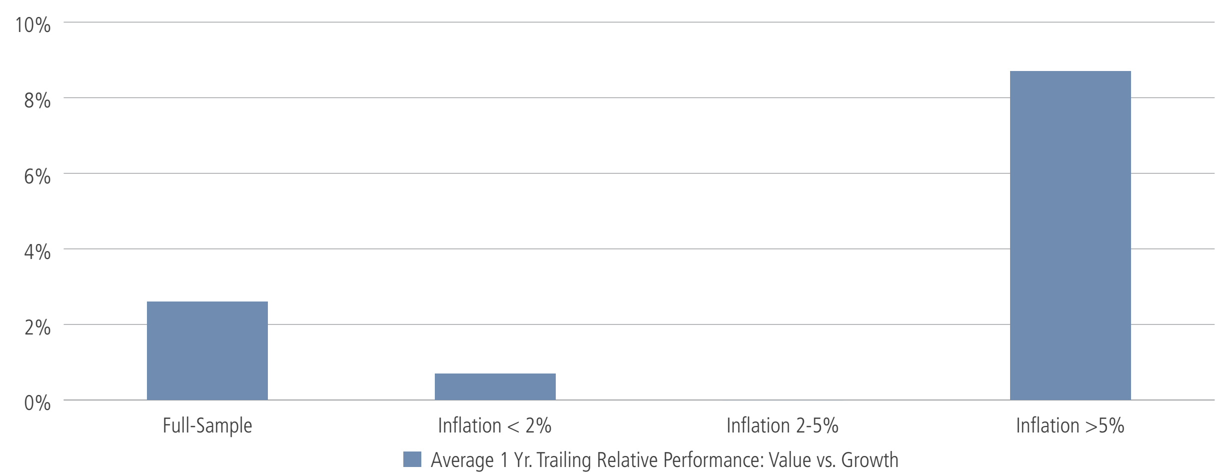
Once upon a time, the idea was to "buy low and sell high." Yet with the equity markets awash in cheap money following the 2008 financial crisis, that mantra gradually morphed into "buy high and sell higher."

Though a younger generation of asset managers may find it hard to fathom, value stocks used to be, indeed, *valuable*. In fact, for eight decades until the 2008 crisis, value stocks outperformed growth companies by 3.0% a year.[2] But when the Fed slashed interest rates to revive the economy, the equity market—especially growth stocks—went on a tear: From December 31, 2008, to October 31, 2022, growth trounced value by 3.2% per year,[3] helped in part by benign inflation. Benjamin Graham—long-revered "father of value investing"—would have been at wit's end.

When viewed through a longer-term lens, however, we believe this last bull market was, in certain respects, a Fed-fomented anomaly.

In our view, both the extraordinary post-COVID fiscal stimulus and an extended period of highly accommodative monetary policy in the aftermath of the 2008 financial crisis—in the U.S. and across the globe—served to lower risk premia, turbocharge growth stocks and, ultimately, unleash inflation. And when inflation strikes, value tends to trump growth: Over the previous seven decades, value stocks outpaced growth stocks by 8.7% per year during periods when inflation was north of 5% (see chart below).

FIGURE 7. VALUE VS. GROWTH AND INFLATION REGIMES: 1950 – 2022



Source: Bloomberg, Robert Schiller CPI data at Yale University, and Kenneth French data library. Analysis period from June 1950 to October 2022. Value – Growth spread shows excess return performance. It represents the difference in total return between the Fama/French Large Cap Value Research portfolio and the Fama/French Large Cap Growth Research portfolio over a one-year rolling window. Information on historical observations about markets, asset or sub-asset classes is not intended to represent or predict future events. Historical trends do not imply, forecast or guarantee future results. **Past performance is no guarantee of future results.**

This trend stands to intuition. First, higher inflation often comes with higher interest rates. Growth stocks are more sensitive to higher rates than value stocks because growth companies tend to generate more of their earnings in the future—and discounting those future earnings at higher rates lowers their present value. Also, value stocks tend to include many financial services firms, which can outperform when rates rise.

Could inflation cool over the next 12 months? Perhaps—yet we believe the economy has entered a new regime marked by historically higher *structural* inflation that tends to bode more favorably for value strategies over the long term.

[2] Bloomberg, Kenneth French data library; analysis period from June 1926 to October 2022.
[2] Ibid.

The U.S. dollar, we have found, can also offer useful clues about value stocks' potential outperformance.

The chart below highlights the negative relationship between the relative performance of the Russell 1000 Value Index and the dollar index over the last 30 years. Specifically, as the dollar rises, value underperforms, and vice versa.

As shown, value stocks have lost ground to growth stocks since 2008, roughly in line with the 2008 cycle trough in the nominal dollar index. The dollar, meanwhile, began its steady ascent in early 2011 and is now, in our view, two standard deviations more expensive than is warranted by its PPP-based fair value.[4]

FIGURE 8. VALUE STOCKS' OUTPERFORMANCE AND U.S. DOLLAR CYCLES

Source: FactSet, Neuberger Berman. Data as of November 30, 2022. Information on historical observations about markets, asset or sub-asset classes is not intended to represent or predict future events. Historical trends do not imply, forecast or guarantee future results. **Past performance is no guarantee of future results.**

Dollar cycles tend to last seven to 10 years, implying that the tide, in our view, is ready to turn. While calling precise inflection points is virtually impossible, we believe a weakening dollar (when it comes) would be consistent with muti-year historical regimes during which value staged sustained outperformance versus growth.

Small Caps May Regain Their Historic Edge

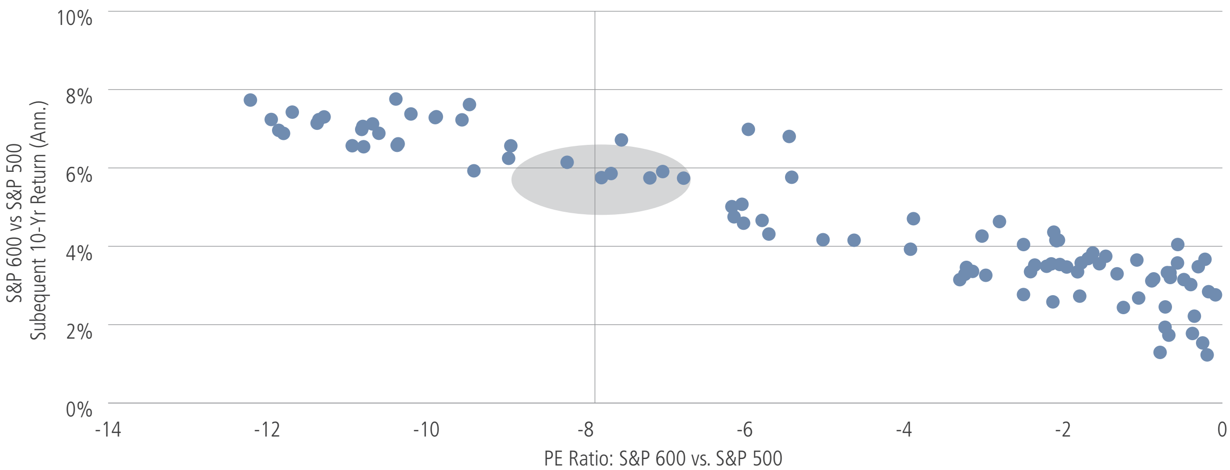
Mighty returns often come in small packages—or at least they used to. Over the eight decades before the 2008 crisis, small-cap stocks outperformed large-caps by 2.3% a year.[5] Then, as in the value-versus-growth story, the script flipped: Starting in 2009, large edged out small by 0.7% a year through October 31, 2022.[6]

We credit that shift, in part, to the emergence of "Big Tech" and its relative dominance within market-cap-weighted indexes. In the new economic regime, however, we think history will have its due.

First, consider the relative valuations of the two groups, as shown in the chart below. At current levels, the price-to-earnings (P/E) ratio of the S&P 600 Small Cap Index *trails* the P/E of the S&P 500 Index by eight points. A plot of the indexes' relative subsequent 10-year returns versus their P/E differentials implies the potential for small caps to outperform large caps by a significant amount per year over the next decade.

[4] Neuberger Berman Research, IMF, FactSet. Calculation based on DXY weights using data going back to 1980.
[5] Bloomberg; Kenneth French data library.
[6] Ibid.

FIGURE 9. SMALL VS. LARGE, 10-YR ANNUALIZED RETURN: 6.2%

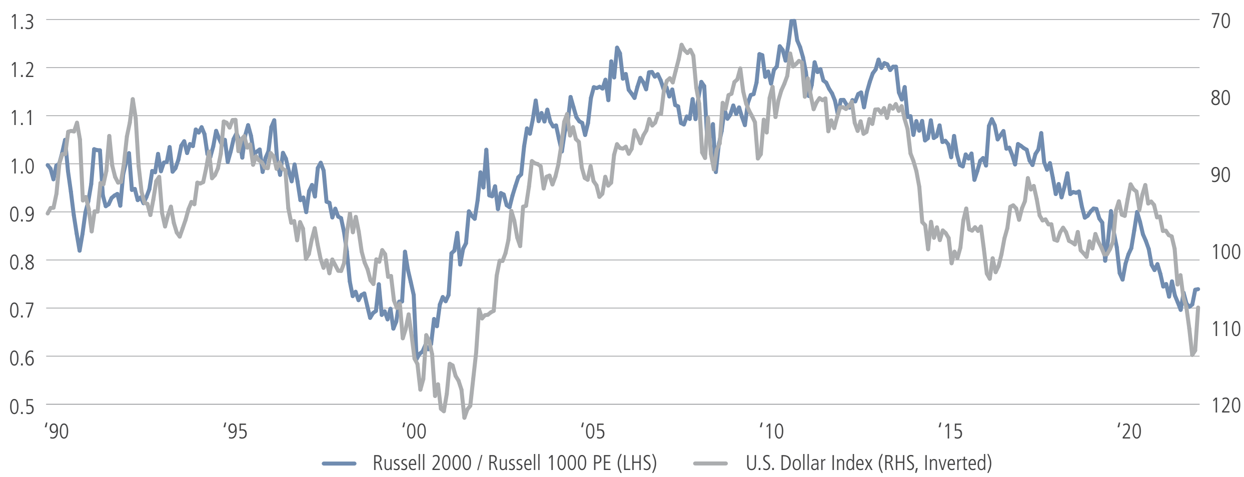


Source: FactSet, Neuberger Berman. Analysis period from January 1994 to November 2022. Valuation calculations exclude negative earners. Information on historical observations about markets, asset or sub-asset classes is not intended to represent or predict future events. Historical trends do not imply, forecast or guarantee future results. **Past performance is no guarantee of future results.**

We observe a more modest 3.2% small-cap advantage when running the regression using the Russell 2000 Small Cap Index versus the Russell 1000 Index. In our view, however, the S&P 600's higher-quality membership is a better proxy for an actively managed and quality-focused small-cap portfolio; likewise, we think the potential outperformance of the S&P 600 vs. large caps is a better proxy for what skilled, active small-cap managers could achieve over the long run.

Movements in the U.S. dollar, we believe, could also be sending hopeful signals for small caps. As shown in the chart below, small-cap outperformance has tended to move in the opposite direction of U.S. dollar cycles over the last 30 years.

FIGURE 10. SMALL CAP REVALUATION CYCLES INVERSELY TRACK THE U.S. DOLLAR



Source: FactSet, Neuberger Berman. Data as of November 30, 2022. Information on historical observations about markets, asset or sub-asset classes is not intended to represent or predict future events. Historical trends do not imply, forecast or guarantee future results. **Past performance is no guarantee of future results.**

In light of this relationship, we believe a potentially weakening dollar—currently near a cycle high—could also bode well for small caps versus large caps in what looks like a new economic regime.

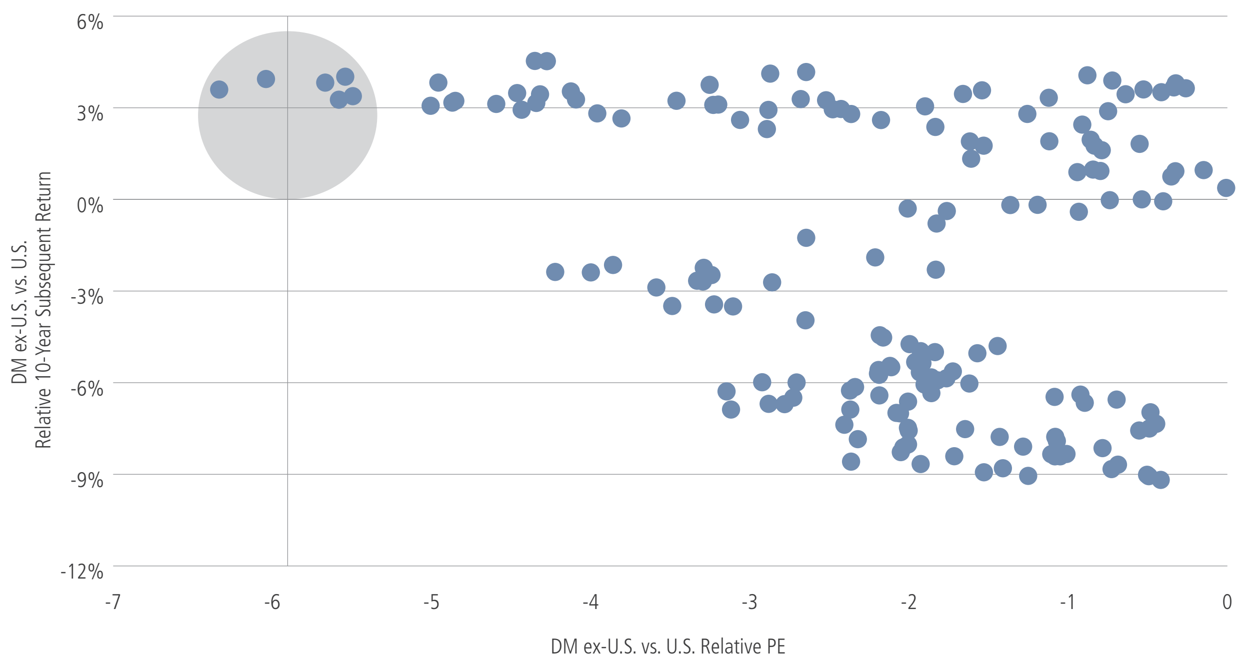
Non-U.S. Markets Offer Inviting Shores

As with small caps, relative-valuation comparisons and dollar-cycle relationships appear to augur good news for non-U.S. equities relative to domestic stocks.

Start with valuation. Between 1970 and 2008, developed markets (DMs) outside the U.S. have outperformed the U.S. market by 1.2% a year.[7] Now, relative valuations appear to have moved even more favorably toward DMs.

As shown in the chart below, the average P/E ratio of DMs relative to the U.S. market bodes well for DMs to outpace the U.S. market over the next 10 years.

FIGURE 11. NON-U.S. VS. U.S. 10-YR ANNUALIZED RETURN (JAN 1995 – NOV 2022)



Source: MSCI, FactSet, Neuberger Berman. Analysis period from January 1995 to November 2022. Valuation calculations exclude negative earners. Information on historical observations about markets, asset or sub-asset classes is not intended to represent or predict future events. Historical trends do not imply, forecast or guarantee future results. **Past performance is no guarantee of future results.**

Data over the same period also suggest there is an even more attractive relationship—not charted here—between emerging markets (EMs) versus DMs (historically, an outperformance of 6% per year over subsequent 10 years).[8] At recent valuations, the relative P/Es underscore higher potential for EMs to outperform DMs over the next decade.

A falling dollar, we believe, should also favor non-U.S. allocations. The chart below shows how the relative performance of DMs versus U.S. markets has tracked the dollar since 1970.

[7] Source: MSCI World ex-U.S. Index, MSCI World Index, FactSet, Neuberger Berman. Data as of November 30, 2022.
[8] Source: MSCI World Index, MSCI Emerging Markets Index, FactSet, Neuberger Berman. Data as of November 30, 2022.

FIGURE 12. DOLLAR WEAKNESS FAVORS EX.-U.S. STOCKS

Source: MSCI, FactSet, Neuberger Berman. Data as of November 30, 2022. Information on historical observations about markets, asset or sub-asset classes is not intended to represent or predict future events. Historical trends do not imply, forecast or guarantee future results. **Past performance is no guarantee of future results.**

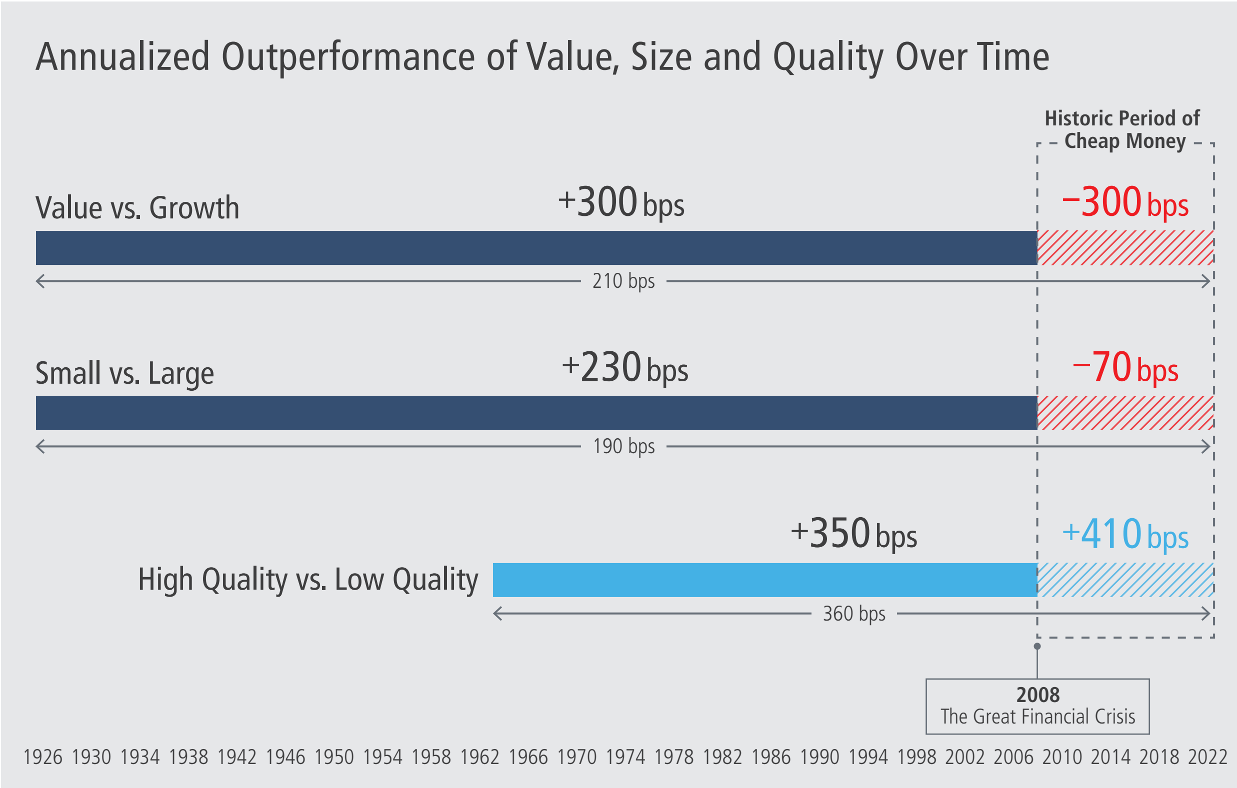
In short, as the dollar weakens, DMs ex-US tend to outperform. This relationship also might come as little surprise: The sectoral composition of DM-ex-U.S. indices tends to align more closely with value than growth; for example, ex-U.S. developed indices tend to contain more industrial and banking stocks, while U.S. indices may be geared more toward technology companies. In essence, ex-U.S. DM versus U.S. can be thought of as value vs. growth playing out on the global stage. In addition, when the dollar weakens, unhedged U.S. investors can harvest additional returns from the rising DM exchange rate.

Conclusion

We believe investors are entering a new golden age for equity management—one in which markets may prove more sensitive to historically influential factors such as quality, valuation, size and a potentially weakening dollar.

In our view, long-term allocators should consider making key adjustments warranted by what appears to be a new economic regime that, while challenging, could also provide compelling opportunities for savvy managers to seek attractive risk-adjusted returns.

Appendix



Annualized Outperformance of Value, Size and Quality Over Time
Historic Period of Cheap Money
Value vs. Growth
+300 bps
−300 bps
210 bps
Small vs. Large
+230 bps
−70 bps
190 bps
High Quality vs. Low Quality
+350 bps
+410 bps
360 bps
2008
The Great Financial Crisis
1926 1930 1934 1938 1942 1946 1950 1954 1958 1962 1966 1970 1974 1978 1982 1986 1990 1994 1998 2002 2006 2010 2014 2018 2022

NEUBERGER | BERMAN

Neuberger Berman
1290 Avenue of the Americas
New York, NY 10104-0001

www.nb.com