Small-Cap Distortions: Is There Hope for Active Managers?

SMALL CAP VALUE EQUITY TEAM

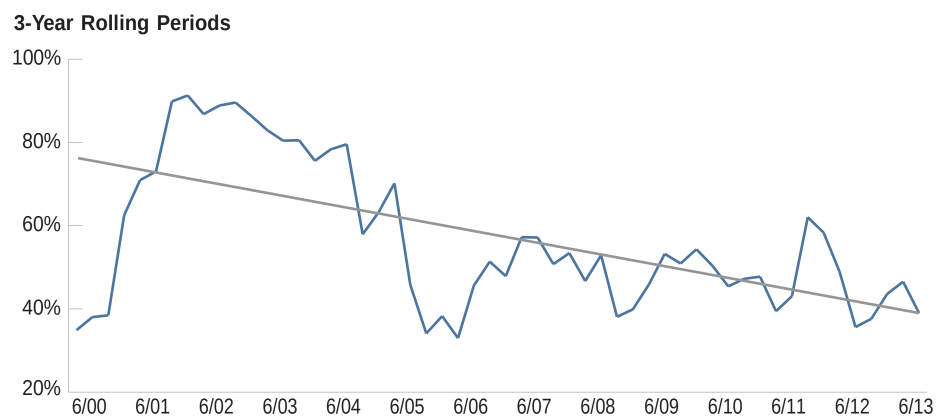
The small-cap segment of the U.S. equity market has long been viewed as a sweet spot for active portfolio management. A large, diverse pool of stocks, a lack of research coverage and relatively illiquid securities have contributed to inefficiencies ripe for exploitation by skilled stock pickers. Still, in recent years, it has become increasingly difficult for active managers to outperform in the small-cap space. In part, this seems a function of a marketwide shift in focus to macro issues since the 2008 crisis, as stocks have moved more in tandem in reaction to broad economic developments. However, it appears to us that something more is at play—the distorting influence of aggressive Federal Reserve policy and the growth of passive small-cap exchange-traded funds (ETFs). In this paper, we look at these issues and their ramifications. Despite recent headwinds, we come away with reasons for confidence in the prospects of long-term oriented active managers in the small-cap space.

RECENT PERFORMANCE TRENDS

The relative performance record of active small-cap mutual fund managers has been fairly bleak post-2008, as shown in these displays. Based on Morningstar data, rolling periods of various lengths all indicate a downward trend in the percentage of active small-cap core managers who have been able to outperform the Russell 2000 Index. Although survivorship bias and the inclusion of fees may have some influence on these figures, these biases should apply across all time periods. We saw similar results across the broader small-cap category when comparing growth and value managers to the Russell 2000.

FIGURE 1A: BEATING THE BENCHMARK: A TALLER ORDER?

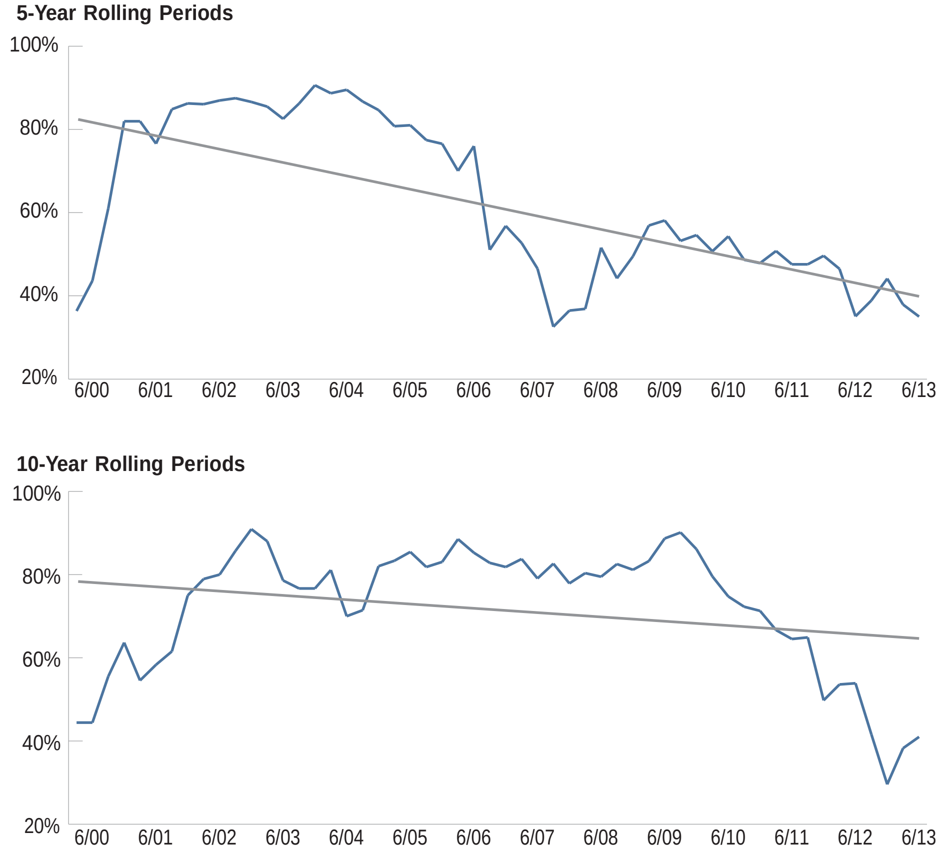
% of Actively Managed Small-Cap Blend Mutual Funds That Outperformed the Russell 2000 Index



Source: Morningstar.

FIGURE 1B: BEATING THE BENCHMARK: A TALLER ORDER?

% of Actively Managed Small-Cap Blend Mutual Funds That Outperformed the Russell 2000 Index



Source: Morningstar.

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Why has active management come up short? One could posit that the small-cap market has become more efficient—but there's little evidence this has occurred. Using Wall Street coverage as a proxy for efficiency, the number of analysts following companies in the Russell 2000 appears to have been stable over this time period,[1] while investment banking motivations have continued to create sell-side research biases. In our view, the reasons must lie elsewhere.

THE IMPACT OF EASY MONEY

One clue is found in a comparison of recent small-cap performance with past cycles. Historically, low-quality companies—defined as those in the lowest quintile of return on invested capital, or ROIC (low ROIC tends to be accompanied by high financial leverage)—have generally outperformed higher-quality companies, those with the highest quintile ROIC (higher ROIC companies tend to carry less leverage) during rapid economic recoveries. Lower-quality companies are typically less differentiated and more economically sensitive, and logically benefit more in a rapid recovery (as highlighted in the shaded areas of Figure 2). During the periods when low quality is "winning," such

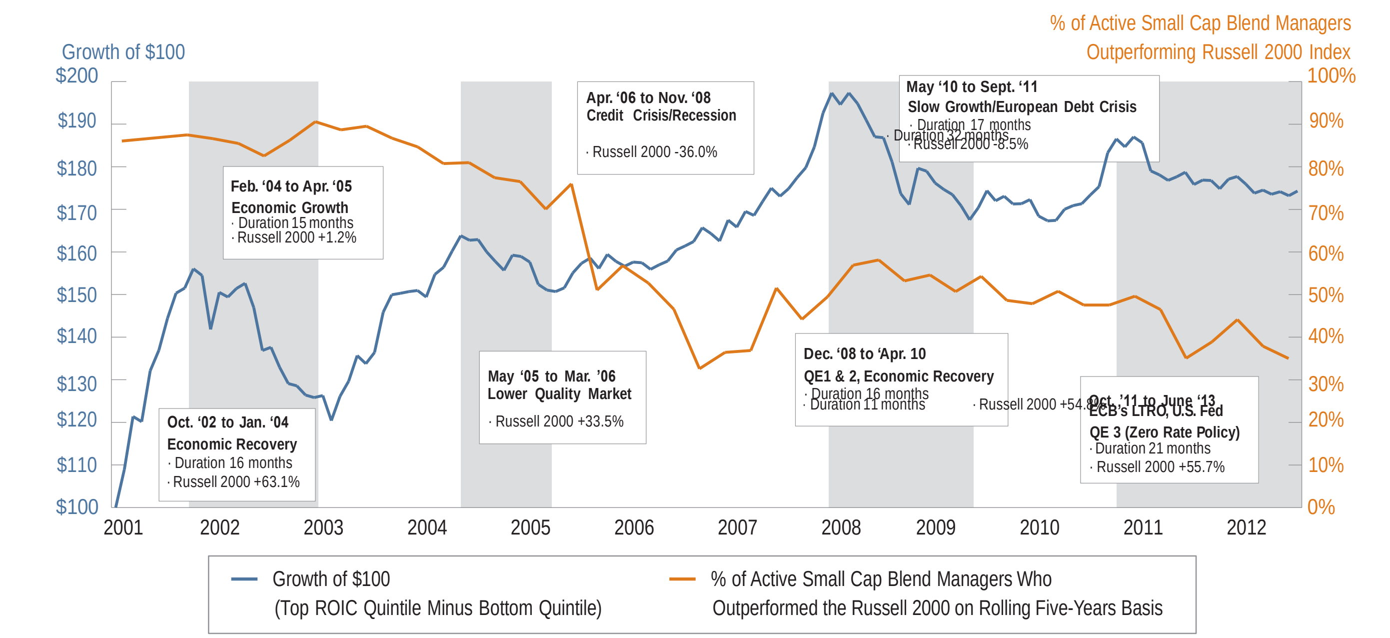
[1] Sources: Russell Investment Group and BofA Merrill Lynch Small Cap Research. As of December 2012, an average of seven analysts covered each Russell 2000 Index company—the same number as in December 1999.

gains have historically clustered around roughly 12-month bursts at the outset of economic recoveries. Of course, after a year or so, economic growth tends to normalize and approach long-term sustainable averages versus the turbocharged gains associated with a recovery from an economic trough. When the economy normalizes back to long-term growth trends, we see that the environment has tended to favor the more differentiated companies with higher ROICs, above-average growth, etc. Finally, in periods of economic contraction and market stress, high ROIC and differentiated business models have tended to be highly defensive and have typically declined less as a result.

The current cycle has been quite different from the norm, favoring low-quality companies over high-quality companies. It is therefore not surprising that many active managers have underperformed.

The current cycle of low-quality outperformance (late 2011 through 2012 and into 2013) has been quite different from the norm. Figure 2 compares the market performance of low-ROIC and high-ROIC companies in the small-cap universe (all small companies with market caps between $200 million and $3 billion). A rising blue line (left scale), indicates that higher ROIC companies have outperformed lower ROIC companies over a stretch of time, while a downward trend indicates the outperformance of low-ROIC companies over a stretch of time. Notably, low-ROIC companies outperformed in the 2002 – 2003 recovery from the dot-com collapse and after the 2008 financial crisis. In late 2011– 2012, however, economic growth was not accelerating, but rather decelerating. Still, low-ROIC companies outpaced high-ROIC companies. We observe that this coincided with the Fed's near-zero interest rate policy. Since the Lehman failure, higher-quality companies have not outperformed lower-quality companies. It is therefore not surprising that many active managers have underperformed over this period.

FIGURE 2: FED POLICY DRIVES RECENT LOW-QUALITY RALLY IN SMALL CAPS



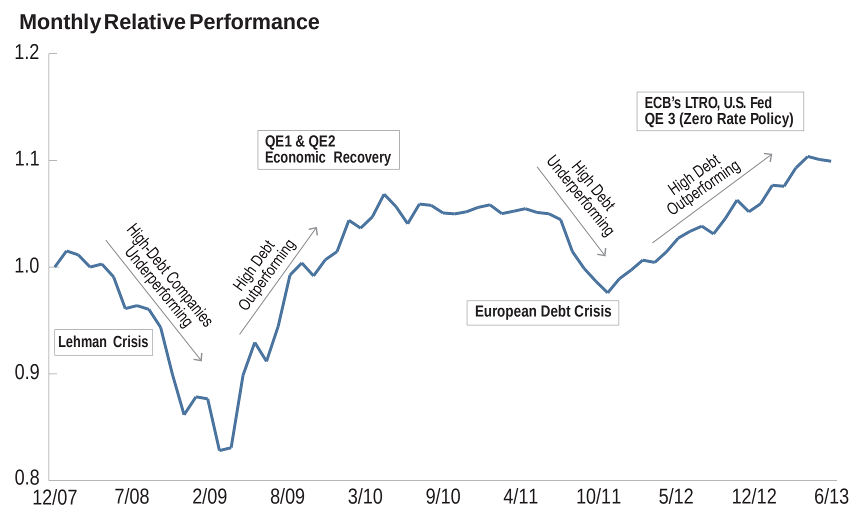
Historically, low quality (bottom-quartile return on invested capital, or ROIC) outperformed high quality (top-quartile ROIC) during rapid economic recoveries. More recently, low quality outperformed high quality during a period of economic weakness, coinciding with the Fed's zero interest rate policy.

Sources: Furey Research Partners, Morningstar, FactSet. ROIC is Return on Invested Capital. Small caps defined as companies possessing market capitalizations between $200 million and $3 billion. Active small-cap blend managers = actively managed Morningstar Small Cap Blend funds. Returns presented as cumulative difference between top and bottom quintiles' discrete monthly returns. Shaded areas represent periods when the lowest quintile ROIC companies have historically outperformed. The data presented herein represent securities industry market data as of the dates specified. It does not represent the performance of any Neuberger Berman account or product nor does it reflect the fees and expenses associated with managing a portfolio.

Perhaps not surprisingly, small-cap stocks with the highest debt-to-cap ratios underperformed the Russell 2000 in the midst of the Lehman crisis, as shown below. However, this group began to outperform the index in early 2009 at the same time as the Fed lowered interest rates and pumped liquidity into the system. After a big relative performance surge during the period of U.S. quantitative easing and zero-interest-rate policy, this cohort pulled back in mid- to late 2011 as the euro crisis bubbled to the surface. Highly levered small caps resumed outperforming when European Central Bank Chairman Mario Draghi uttered his now famous pledge to "do whatever it takes" to hold the euro bloc together. And, of course, the Fed also became much more aggressive around this time.

FIGURE 3: IS HIGH LEVERAGE OVERPRICED?

Highest Debt-to-Capital Companies (by Quartile) vs. Russell 2000 Index



Sources: BofA Merrill Lynch Small Cap Research, Russell Investment Group. Data through June 2013.

Notice how these various periods of outperformance and underperformance of the low-ROIC companies (see Figure 2) tend to align with those of the highly leveraged group. This would seem to support the premise that low ROIC and high leverage go hand in hand.

Fed policy seems to have been to "outlaw" failure. As we like to say, the Fed has "cancelled capitalism" in order to save it. For most active managers, who allocate capital based on the most deserving business models adjusted for valuation, this has been a difficult environment.

Rightly or wrongly, the Fed has favored borrowers over savers in the post-Lehman environment. Short-term interest rates were dropped to virtually zero, while quantitative easing pressured intermediate and longer-term rates lower. In addition, the Fed was quite clear that money would be free, or close to it, for a well-articulated, lengthy time period. Perhaps less explicit, another post-Lehman policy seems to have been to "outlaw" failure. Of course, these were not normal times relative to U.S. economic history, but as we like to say, the Federal Reserve "canceled capitalism" in order to save it.

For most active equity portfolio managers, who allocate capital based on the most deserving business models adjusted for valuation, this has been a difficult environment. In recent times it is perhaps only rivaled by the dot-com mania, when most investors briefly went "insane" (in another period of low-quality, low-ROIC outperformance).

So where does this leave us? Ignoring for a moment whether capitalism comes back into vogue, to taper or not taper, and so on, where do we go from here? There has certainly been little reward for owning high-return, superior business models that are conservatively financed. As we've seen, these very companies have underperformed in the post-Lehman era.

At the risk of stating the obvious, having underperformed, small-cap high-quality stocks have become cheaper at a time when low-quality stocks have become more expensive. Moreover, if interest rates stay at or near zero indefinitely, corporate "savers" are under-earning, since cash-laden balance sheets can always be re-deployed. It's really not a stretch to assume that virtually any capital re-deployment of cash (share repurchase, acquisitions, etc.) would likely be accretive, since cash is currently a "non-earning" asset. At the other end of the spectrum, having refinanced, highly levered companies have more or less seen the benefit of falling interest expenses. In any environment other than the post-Lehman world, it could be argued that this latter cohort is over-earning to the extent interest rates are being held artificially low by Fed policy.

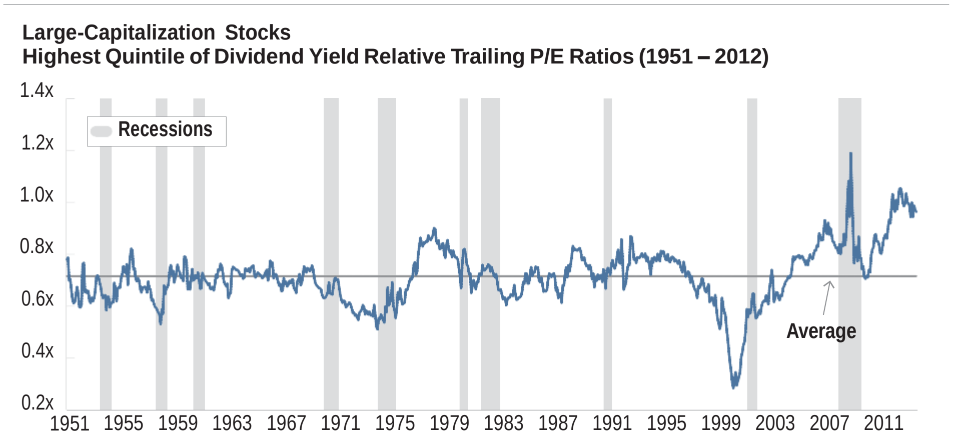
Fed policy has created an investing environment that in many respects has rewarded businesses least deserving of capital and, perhaps inadvertently, punished more deserving businesses. That said, at near zero interest rates, we think this phenomenon has run its course.

Certainly there are many styles of money management, but all active portfolio managers are in the capital allocation business. We believe that post-Lehman Fed policy has created an investing environment that in many respects has rewarded businesses least deserving of capital and, perhaps inadvertently, punished more deserving businesses. That said, at near zero interest rates, which is where we find ourselves today, we think this phenomenon has most likely run its course. It would seem that corporate savers have been penalized to the maximum extent possible, while corporate borrowers find themselves at the other end of the spectrum.

DISCONNECT ON DIVIDEND PAYMENTS

We have not studied the large-cap market to determine if the same forces are at work. That said, we suspect this low-quality bias may not be present, or perhaps is not as pronounced, in large caps because of another related market distortion emanating from Fed policy. As seen in Figure 4 below, the highest quintile of dividend yield within the S&P 500 Index is selling at an extraordinarily high valuation relative to the market compared to the last 60 years. Larger-cap stocks have historically offered substantially higher dividend payout ratios than their smaller brethren, partially as a function of maturity and thus fewer demands on their cash flow, but also dividends and quality seem to go together in large caps. In any case, the thirst for yield may have resulted in divergent performance for quality in the large-cap market. While small caps tend to have much lower dividend payout ratios, those small-cap sectors that have traditionally been associated with yield (utilities, REITs, MLPs, etc.) have outperformed as well during the post-Lehman market environment. So far, all of this seems reasonable.

FIGURE 4: WITH YIELD IN SHORT SUPPLY, INVESTORS HAVE FAVORED DIVIDEND-PAYING STOCKS



Sources: Corporate reports, Empirical Research Partners analysis of the S&P 500 Index. Capitalization-weighted data.

The disconnect comes when comparing high-yielding securities with high-free-cash-flow generating securities that pay a modest dividend, or none at all. Those companies that have packaged free cash flows into dividends (and in some cases are paying dividends even if the underlying business does not generate excess cash) have been richly rewarded, while those that have not trade at substantial discounts to their dividend-paying brethren. Ironically, this would seem to be the case even if a company is returning cash to owners via share repurchase rather than dividends. Of course, in the long run, all sustainable dividends are paid out of free cash flow, and long-term sustainable dividend growth is only possible through free-cash-flow growth.

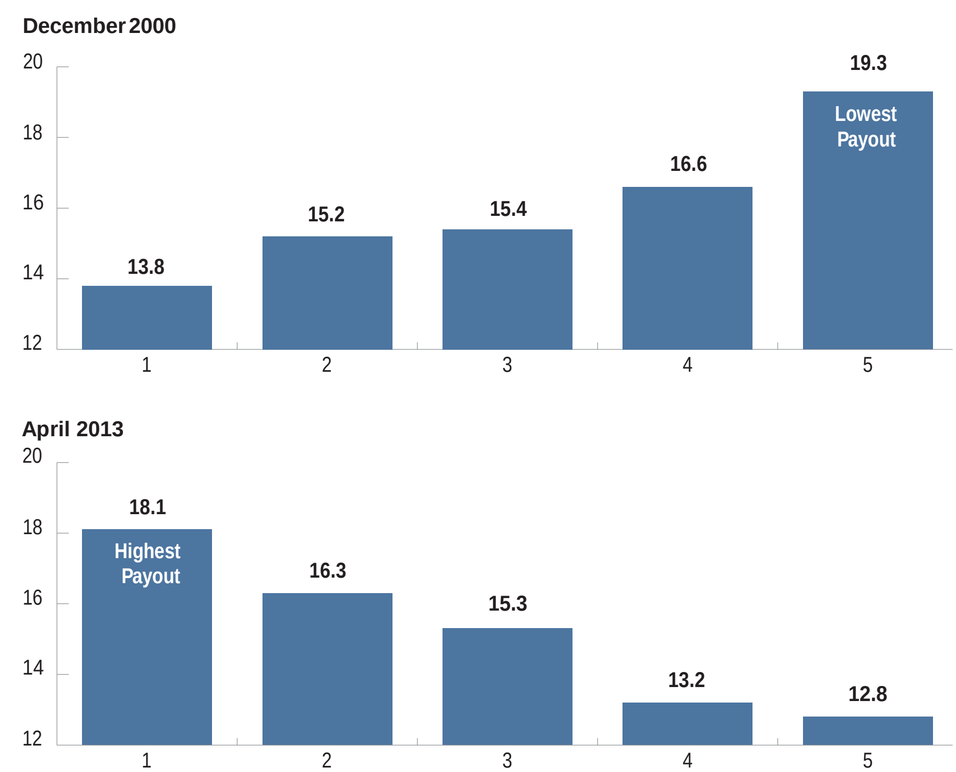
If the current zero-rate climate persists and dividend yields continue to trade at a premium, high-free-cash-flow generating companies not currently paying dividends will likely either pay dividends, or be acquired by other, presumably higher-valued dividend-paying companies, in order to convert their cash flows into income streams.

This disconnect, while understandable, makes no sense, and not unlike the earlier discussion on under-levered versus highly-leveraged balance sheets, we believe it will be closed one way or another. Perhaps the current low interest rate environment will change, and the thirst for income will diminish. If the current zero-rate climate persists and dividend yields continue to trade at a premium, high-free-cash-flow generating companies not currently paying dividends will likely either pay dividends, or be acquired by other, presumably higher-valued dividend-paying companies, in order to convert their cash flows into income streams.

To see just how extreme the quest for income has become, take a look at the graph below. It requires no commentary.

FIGURE 5: IS CURRENT INCOME THE NEW 'DOT-COM'?

S&P 500 Median NTM Price/Earnings by Dividend Payout Ratio Quintile



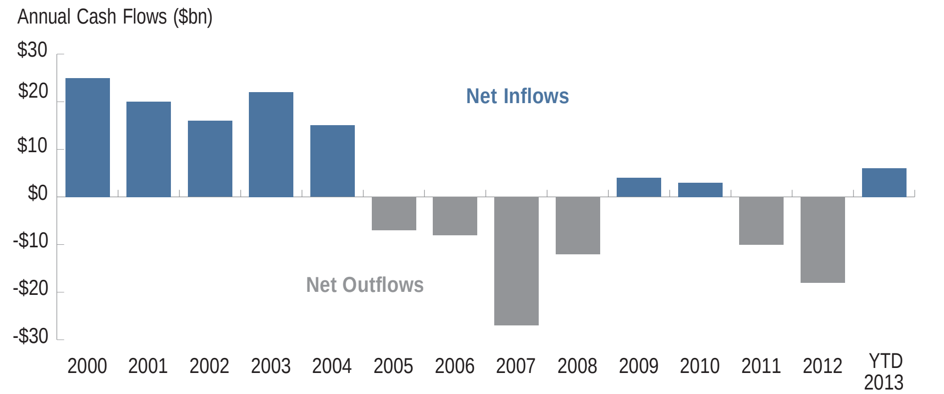
Source: The Leuthold Group. Comparison of the highest leverage quintile vs. the lowest leverage quintile, rebalanced monthly, based on the Leuthold 3000 universe, which is the 3000 largest, most liquid U.S.-traded securities.

Beyond the important impact of the Federal Reserve, we believe that the growth of exchange-traded funds (ETFs) is a key influence on the small-cap space and recent active manager underperformance.

DISTORTING EFFECTS OF EXCHANGE-TRADED FUNDS

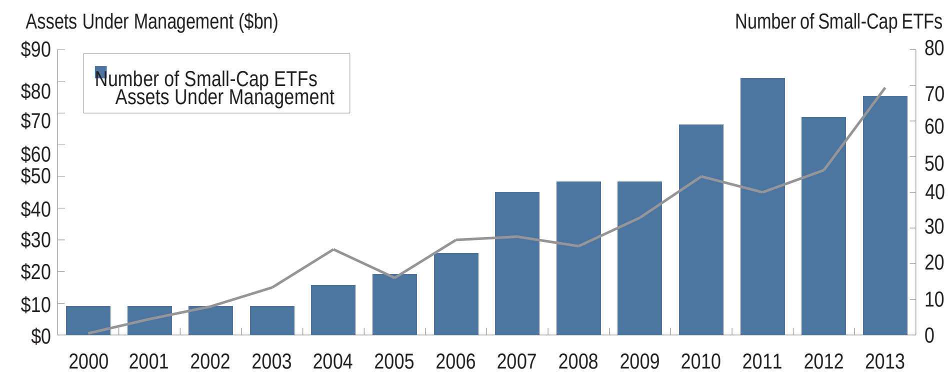
Beyond the important impact of the Federal Reserve, we believe that the growth of exchange-traded funds (ETFs) is a key influence on the small-cap space and recent active manager underperformance. Since 2005, small-cap managers have experienced steady outflows. To the extent active managers "high grade" their portfolios, these outflows should tend to pressure higher-quality stocks. At the same time, small-cap ETFs, which first began to gain traction around 2000, have seen major asset growth.

FIGURE 6A: ACTIVE SMALL-CAP MANAGERS HAVE SEEN STEADY OUTFLOWS...



Sources: The Leuthold Group, Lipper. Includes all small-cap funds in Lipper's small-cap universe, as of June 2013.

FIGURE 6B: ...WHILE SMALL-CAP ETFS HAVE SEEN STEADY INFLOWS



Source: Citi Research, as of June 2013.

The Russell 2000 consists of more volatile, lower-quality companies than the S&P 500, but is also a cross section of more similarly sized companies. Given this tight market-cap band, money flows into ETFs have a much greater impact on the performance of each individual security.

It follows that when money flows into a large-cap ETF, representing for example the S&P 500, it is effectively buying a fairly homogeneous group of securities from a quality perspective, yet a very heterogeneous group of securities from a market-capitalization standpoint. Figure 7 compares the S&P 500 with the Russell 2000. As can be seen, the range of market caps in the S&P 500 is very wide ($2 billion to $398 billion). Since the S&P 500 is a float-adjusted, market cap-weighted index, the dollars tend to flow proportionally into the most liquid securities, diminishing the market impact on any one stock or group of stocks. In addition, the quality differentials are much tighter in the S&P 500 than in the Russell 2000, where the number of companies posting losses is roughly five times greater and the average return on equity (ROE) is dramatically lower.

The quality differentials are actually even wider than the table would suggest. The use of averages, aggregates and medians, and the exclusion of loss-generating companies, can distort certain financial metrics. However, if one's analysis views the companies as part of an overall portfolio, it's possible to overcome these shortcomings, as each company's net income (or loss) can be accounted for based on its individual portfolio weighting. The effects of loss-making companies are thus captured more accurately. Applying this approach to the Russell 2000 based on the holdings of the iShares Russell 2000 Index, or IWM (the largest small-cap ETF, see Figure 10), the index's ROE falls to below 5% and the reported price/earnings ratio more than doubles.[2]

Regardless of methodology, there is little question that the Russell 2000 consists of more volatile, lower-quality companies than the S&P 500. Like its large-cap counterpart, the Russell is a float-adjusted, cap-weighted index, but unlike the S&P 500, it is a cross section of similarly sized companies, as shown in Figure 7. It follows that, given this tight market-cap band, money flows into the IWM (or any other ETF or index fund that replicates the Russell 2000) have a much greater impact on the performance of each individual security. In the case of the small-cap market, these flows have an outsized impact on the low-quality "tail" of the index. Depending on the aggregate quality orientation of active managers, this may well be compounded by outflows from active managers, most of whom probably do not own many, or enough, of the riskier small caps.

A vicious cycle may well be underway. Active managers could be lagging the index by virtue of underweighting the low-quality "tail" of the small-cap market, while ETF flows may be bidding up this very segment. If active managers are then redeemed in favor of ETFs and index funds, it could result in more selling pressure for higher-quality names, more buying pressure for lower-quality names, more relative underperformance by active managers—and around we go. Of course, some active managers are likely to succumb to the pressure and start to "look more like the index." Given the implications for risk, this may not be a good long-term outcome for their shareholders or for the efficient allocation of capital, but that's a topic for another day.

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FIGURE 7: SMALL CAPS ARE MORE SENSITIVE TO PASSIVE FLOWS

		Russell 2000 Index	S&P 500 Index
Passive flows distort small-cap stocks much more than large-cap stocks	Construction	Cap-weighted Rebalanced annually based on market capitalization (smallest 2000 stocks in the Russell 3000)	Cap-weighted Changes are made periodically based on a company's representation of the U.S. economy, stable financial profile and liquidity
	Largest position size	0.3%	2.8%
	% represented in		
	Market capitalization range	\$22 million – \$4.0 billion 884 companies / 14.1% of million	\$2.0 billion – \$398 billion
Small-cap quality differentials much greater than large caps	% invested in non-earning securities	20.1%	3.7%
	ROE	14.1%	19.6%

Source: FactSet, as of June 2013.

[2] Source: Furey Research Partners, LLC.

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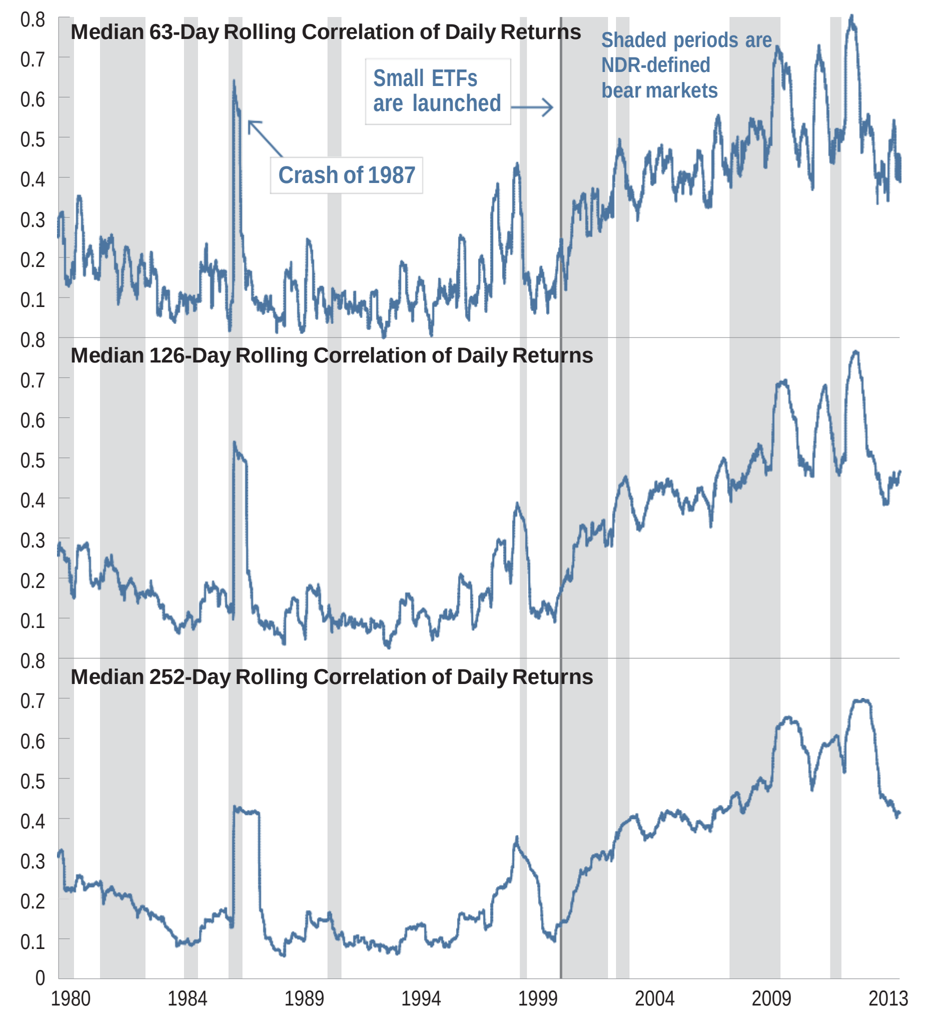
ETFs are often a means for investors to express their broad risk preferences. Simply put, if they want risk, they buy; if they do not, they sell (or go short). So ETFs have encouraged rapid, mass movements of small-cap stocks, and caused them to trade more closely together. Indeed, small-cap correlations have been on the rise since small-cap ETFs first started to garner material assets in 2000.

FIGURE 8: ARE ETF FLOWS DRIVING UP CORRELATIONS?

Median Correlations of Russell 2000 Stocks to the Russell 2000 Index

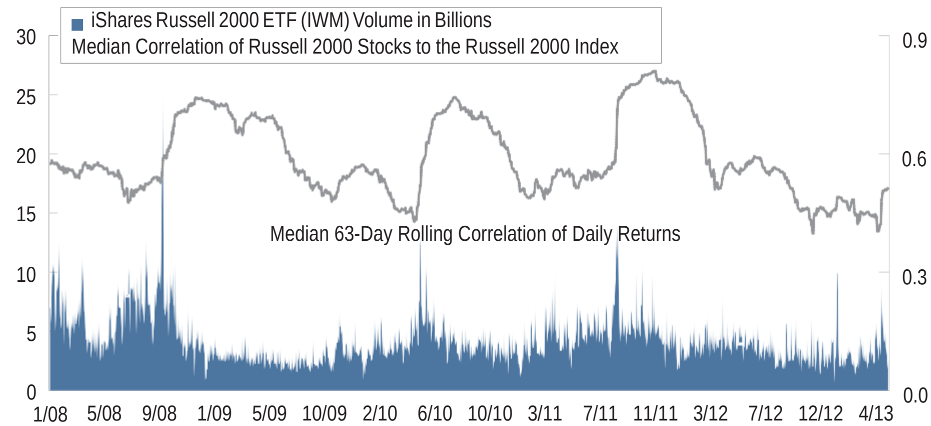


Source: Ned Davis Research, Inc., data through September 25, 2013. Correlation between each stock in the Russell 2000 Index and the overall index using daily return streams over rolling 63, 126 and 252 day periods.

Higher correlations, by definition, make it more difficult for active managers to provide alpha, at least in the short term.

More recently, we have seen the impact of ETFs in periods of shifting investor sentiment, when increases in ETF trading have coincided with increases in Russell 2000 correlations. Such higher correlations, by definition, make it more difficult for active managers to provide alpha, at least in the short term.

FIGURE 9: ETF TRADING SPIKES APPEAR LINKED TO CORRELATION SPIKES IN THE RUSSELL 2000



Sources: Citi Research, Ned Davis Research.

Although small-cap ETFs' asset growth is significant, their trading volume is also a major aspect of their influence—especially when leverage is taken into account.

Although ETFs' asset growth is significant, their trading volume is also a major aspect of their influence. As noted, IWM is the largest U.S. small-cap ETF, with $21 billion in assets, and currently averages 90-day trading volume of 40 million shares. Although an apples-to-oranges comparison, IWM volume has on some days exceeded that of the entire Russell 2000 Index. Smaller ETFs can also be impactful as well, especially when leverage is taken into account. The Direxion Daily Small Cap Bull 3x Shares (TNA), with assets of just over $500 million, has generated 90-day trading volume of more than 11 million shares. We believe this combination of the growth of ETFs and their suitability for rapid trading has contributed to higher correlations overall.

FIGURE 10: IS HYPER TRADING ACTIVITY INFLUENCING CORRELATIONS?

		90-Day Avg. Volume	Assets
IWM	iShares Russell 2000 Index	39,822,712	21,183,303,843
IJR	iShares S&P Small Cap 600 Index	812,768	10,324,441,706
VB	Vanguard ETF Small Cap	361,294	6,319,692,855
IWN	iShares Russell 2000 Value Index	1,283,713	5,349,418,725
IWO	iShares Ruseell 2000 Growth Index	909,519	4,712,217,004
VBR	Vanguard ETF Small Cap Value	148,307	3,048,322,302
VBK	Vanguard ETF Small Cap Growth	119,151	2,783,119,414
IJS	iShares S&P Small Cap 600 Value Index	109,468	2,393,645,084
IJT	iShares S&P Small Cap 600 Growth Index	109,468	1,922,055,330
UWM	ProShares Ultra Russell 2000	1,004,037	1,216,511,737
SCHA	Schwab U.S. Small Cap ETF	212,667	1,198,086,038
TZA	Direxion Daily Small Cap Bear 3x Shares	10,045,040	838,092,044
DES	Wisdom Tree Small Cap Dividend	82,365	649,944,828
IWC	iShares Russell Microcap Index	54,312	577,614,589
TNA	Direxion Daily Small Cap Bull 3x Shares	11,126,526	501,641,222
RWM	ProShares Short Russell 2000	1,042,923	392,463,751
TWM	ProShares UltraShort Russell 2000	2,163,422	376,961,627
JKL	iShares Morningstar Small Value Index	24,536	287,017,777
SLYG	streetTRACKS DJ_Wilshire Small Cap Growth	8,501	211,101,048
JKJ	iShares Morningstar Small Core Index	6,113	160,644,687

Sources: Citi Research, FactSet, Morningstar. As of May 2013.

MARKET DISTORTIONS AND OPPORTUNITIES FOR ACTIVE MANAGERS

What can investors take away from these observations on Federal Reserve policy and ETFs? And looking ahead, what do they mean for active portfolio management in the small-cap space?

As noted earlier, we believe that performance impact of the Fed's loose monetary policy has probably run its course. The Fed Funds rate has been at close to zero for some time, and most highly leveraged companies are unlikely to benefit materially from further debt restructuring, while cash-laden companies are unlikely to continue to be penalized going forward. Moreover, with recent improvements in the U.S. economy, the Fed is widely expected to pull back on asset purchases eventually, and could even raise rates in 2014. All of which indicates to us that the support by the Fed for lower-quality stocks should gradually fade—potentially leveling the playing field or perhaps even favoring the higher-quality names commonly owned by most active portfolio managers.

At this point, there's no sign that ETFs' popularity will fade anytime soon. That said, we believe their tendency to paint all shares with the same brush is also contributing to sizable opportunities in the small-cap universe for long-term investors. As mentioned, ETFs do not distinguish between good and bad stocks—but that does not mean there are no such differences, or that they will not have ramifications for investors.

Individual fundamentals matter greatly in achieving success over the long term.

Indeed, our belief is that individual fundamentals matter greatly in achieving success over the long term. As shown in Figure 11, earnings growth has equated strongly with stock performance over extended periods. Badly run, overly leveraged companies are more likely to fail. Fast-growing, differentiated, well-run businesses are more likely to succeed. Even if such differences are obscured on a temporary basis, eventually we believe they are recognized, whether through share price performance, distributions or the outright sale of some or all of a given company.

FIGURE 11: COMPANY FUNDAMENTALS PREVAIL OVER THE LONG TERM

Returns Attributable to Earnings Change and Valuation (1956 – 2012)

Investment Horizon (months)	% Contribution to Price Return From Operating EPS	% Contribution to Price Return From Price-to-Earnings
1	4	96
3	17	82
6	34	66
12	41	60
24	56	44
36	61	40
60	56	44
120	85	14

Sources: Beacon Pointe Advisors, RBC Capital Markets Research. Based on Thompson estimates for the S&P 500 Index.

With so many stocks trading together, with valuations that fail to reflect striking differences among them, we believe that active investors should see the current environment as a major opportunity in the small-cap space. The key, in our view, is to have patience enough to avoid short-term speculative choices in favor of a long-term time horizon tied to underlying fundamentals.

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Solin Cho, CFA, Senior Vice President, joined the firm in 2006. Solin is a Senior Analyst on the Small Cap Value team, which she joined in 2012. Previously, she was an Analyst on the firm's Mid Cap Value Equity team. Before joining the firm, Solin spent 11 years in sell-side research, first at Smith Barney and, later, at Morgan Stanley. At different points during that time, she covered imaging, electrical equipment, multi-industry and small-cap value/special situations stocks. Solin earned a BA from Williams College and holds the designation of Chartered Financial Analyst.

Gregory G. Spiegel, Senior Vice President, joined the firm in 2012. Greg is a Senior Analyst on the Small Cap Value team. Previously, he was Director of Research at Tourmalet Advisors, where he covered global equities and oversaw that firm's research analysts. His investment career has included a number of analyst and portfolio management positions with Pequot Capital Management, Inc., Pilot Advisors, L.P., Bear Stearns & Co., Inc., Glickenhaus & Co., and Herzog, Heine & Geduld. Greg earned an MBA from Columbia Business School and a BS from Boston University.

Lee Arden Arcamone, Senior Vice President, joined the firm in 1991. Lee is a Product Specialist on the Small Cap Value team. Prior to her current position, Lee was a member of the Performance Analytics team, where she worked on special project analytics, delivering product content and detailed competitive analysis used to strategically position the firm's equity products in the marketplace. Before that, she managed a team of mutual fund analysts, where she had primary oversight responsibility for the firm-wide dissemination of mutual fund analytics, an area of the firm that she was asked to build and develop early in her career. Lee received a BA from St. John's University.