Invesco

Investment Perspective

Invesco Global Quantitative Equity

The Historical Performance Advantage Of Small Caps Post Recessions

Smaller companies have a number of disadvantages relative to their larger peers during times of economic distress. Limited business lines and geographic diversification, greater reliance on bank financing, and higher operational leverage leave these companies more vulnerable entering downturns. As conditions improve, however, small cap stocks tend to enjoy sharper rebounds than large caps. This historical post-recession performance advantage may present a tactical opportunity for investors willing to increase their allocation to small caps at the expense of large caps.

Equity markets in the recent economic environment

The recent global economic downturn, which started with the collapse of the sub-prime mortgage industry and quickly spread to all areas of the economy, produced dramatic declines in the U.S. equity markets. From its high in October 2007 to its low in March 2009, the S&P 500® Index fell more than 55%. Meanwhile, small caps, as measured by the Russell 2000® Index, fell nearly 59%[1] during their peak-to-trough decline, underperforming even the dismal returns of large caps.

Vulnerability of small caps in recessions

Small companies tend to be more vulnerable than larger ones during economic downturns. Many smaller companies have a limited number of business lines, whereas larger companies (e.g. General Electric) have multiple operating segments. Smaller companies also tend to operate in fewer geographic regions than larger companies. By comparison, the lack of disparate sources of income for small caps results in less robust earnings diversification. If their primary line of business suffers, or revenue falls off within their main geographic focus, the entire organization is likely to feel the full brunt of the decline.

Small companies also tend to rely more heavily on banks for their financing than larger firms, which have comparatively easier access to the capital markets. If credit becomes tighter as the economy contracts, then small caps will have a harder time financing their day-to-day operations. Furthermore, concern over the dearth of business line and geographic diversification is an additional hurdle smaller companies

Data as of March 31, 2010, unless otherwise stated.

[1] Source: Bloomberg.

The Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000® Index. The Russell 2000® Index is a trademark/service mark of the Frank Russell Company. Russell® is a trademark of the Frank Russell Company.

The S&P 500® Index is a market capitalization-weighted index covering all major areas of the U.S. economy. It is not the 500 largest companies, but rather the most widely held 500 companies chosen with respect to market size, liquidity, and their industry.

must overcome to access credit during difficult times. During the worst of the current crisis, bank stocks had dropped over 70%[1] as fears of toxic assets and over-leveraging roiled the industry. In light of these circumstances, banks were generally in no position to dole out extra credit to businesses, since they were undertaking their own emergency balance sheet de-leveraging.

Finally, small companies tend to employ higher degrees of operational leverage than larger companies. Higher leverage may be acceptable under normal circumstances – and may even be ideal for these companies over the long term – but in a severe economic downturn, the multiplier effect of higher leverage takes a larger-than-average bite out of the bottom line. As the business suffers, the fixed burden of debt servicing becomes a higher and higher percentage of the firm's operating income.

These factors combine to result in a group of companies that tend to be more sensitive to times of economic distress. This should not be surprising. Common wisdom holds that small caps tend to be riskier than large caps, and this supposition has proven true over the last 30+ years. The volatility of small caps from 1979 to 2010 checks in at a level of 19.9%, whereas that of large caps registers at 15.4%.[2] The higher volatility in the small cap index represents the riskier nature of its underlying constituents.

What has been the experience of small caps after recessions end?

If small companies are challenged by economic downturns more than large ones, then perhaps the corollary is true that they rebound more once conditions improve. To determine whether or not this has been the case historically, we have examined each recession since 1979, including the current one. The goal is to determine whether small caps, on average, outperform large caps after recessions end, at a time when investors generally increase their risk appetite and small company business dynamics benefit from renewed consumer and industry demand.

In the first four rows of Table 1, we have calculated the cumulative return difference between the Russell 2000® Index and the S&P 500® Index during each recession, as well as the one year following its end.[3] The fifth row of Table 1 represents the current recession, for which the National Bureau of Economic Research (NBER) – the government body tasked with assigning official beginning and end dates to recessions – has not yet declared an end.[4] In this case, we have assigned September 30, 2009 as the unofficial end to the recession. This date coincides with the end of the first quarter of positive Gross Domestic Product (GDP) growth, following four consecutive quarters of decline.[5] While GDP growth is not the sole criterion of the NBER in determining the end date of recessions, we believe it is a reasonable proxy and should not alter the results unduly.

Small caps have outperformed large caps after recessions

As you can see from Table 1, small cap stocks have outperformed large caps subsequent to the end of each of the last five recessions (the uncertainty over the exact end of the current recession notwithstanding). In two cases (July 1981 – November 1982 and July 1990 – March 1991) small caps also underperformed during the recession itself, and they were essentially even with large caps in one more case (January 1980 – July 1980). The average cumulative return difference across all these recessionary periods is +1.0% in favor of small caps. Excluding the current recession, the average cumulative return difference is -0.4%. Turning to the one year period following recessions, we find the average cumulative return difference (small caps less large caps) is +10.2%. This does not include the returns subsequent to the unofficial end to the current recession, since a year has not yet passed.

[1] Source: Bloomberg. Return of S&P 500® Index Bank Industry Group, 10/5/07 – 3/5/09: -87.0%. Return of S&P 600® Index Bank Industry Group, 10/5/07 – 3/9/09: -73.1%. Dates reflect high-low periods of each Index.

[2] Annualized standard deviation of monthly returns of Russell 2000® Index and S&P 500® Index from January 1979 to February 2010 representing small caps and large caps, respectively.

[3] The official dates of these recessions are from the National Bureau of Economic Research. Source: www.nber.org.

[4] The official begin date of the current recession is Dec 07. Source: www.nber.org.

[5] Source: www.bea.gov.

Table 1: Performance of Small Caps and Large Caps During and After Recession

			Cumulative Performance					
Recession Date			During Recession			After Recession		
Start	End	Post 1 Year	Russell 2000	S&P 500	Difference	Russell 2000	S&P 500	Difference
01/01/1980	07/31/1980	07/31/1981	16.3%	15.9%	0.4%	30.3%	13.0%	17.3%
07/01/1981	11/30/1982	11/30/1983	12.0%	14.5%	-2.5%	33.4%	25.6%	7.8%
07/01/1990	03/31/1991	03/31/1992	2.8%	7.6%	-4.8%	21.0%	11.0%	10.0%
03/01/2001	11/30/2001	11/30/2002	-1.8%	-7.2%	5.4%	-10.6%	-16.5%	5.9%
12/01/2007	09/30/2009*	04/30/2010**	-19.0%	-25.4%	6.4%	19.5%	13.5%	6.0%
Average (ex recession which began 12/07)			7.3%	7.7%	-0.4%	18.5%	8.3%	10.2%
Average (including recession which began 12/07)			2.1%	1.1%	1.0%	18.7%	9.3%	9.4%

Source: Invesco; National Bureau of Economic Research.
* Invesco assumption - unofficial end
** Seven months post unofficial end

Small caps have experienced average returns rather similar to large caps while recessions are ongoing (at least over the last five of them, which covers a span of 30 years), but, more interestingly, small caps have had much better returns subsequent to the end of these recessions. Intuitively, the post-recession performance spread seems significant. A statistical test comparing the average 12-month spread for each month of the year following these recessions to the average 12-month spread for all other months reveals that the results are indeed statistically significant, too.[1]

A tactical opportunity in small caps

Given the historical performance experience of small caps coming out of recessions, there may be an opportunity available to investors at the end of economic downturns if one can tactically increase exposure to small caps at the expense of large caps. With a strengthening economy, consumer and business demand is likely to rise. In that environment, smaller companies may be positioned for better operating results than larger firms. As more credit becomes available and demand picks up in smaller companies' comparatively limited business lines, their higher operational leverage should have a bigger impact on the bottom line, which could translate into a stock return advantage over large caps.

The experience of the last 30 years shows that small caps have generated attractive absolute and relative returns after the end of recessions. On an absolute level, three out of four of the post-recession periods since 1979 produced strong positive returns for small caps (results range from +20% to +33%).[2] The average return of the Russell 2000® Index for the one year period after all four recessions is an impressive 18.5%, and, as we have seen, this is 10.2% higher than the results from the S&P 500® Index over the same periods.

While it may be a bit too late this time around since the recovery is likely to have been underway for a while now, the end of future recessions may present investors with a compelling opportunity. If an investor has the ability to tactically shift exposure from large caps to small caps, they may garner strong absolute returns, as well as a relative performance advantage, if history persists and small caps outperform large caps during an economic recovery.

[1] Average 12-month spread for each month of the year following all recessions since 1979 excluding the current recession: +14.6%; average 12-month spread for all other months since January 1979: -2.3%.

[2] Excludes recession which began in December 2007 due to lack of return history after unofficial end. Remaining post-recession returns are: Jan 80 – Jul 80: +30.3%; Jul 81 – Nov 82: +33.4%; Jul 90 – Mar 91: +21.0%; Mar 01 – Nov 01: -10.6%

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