Smith Group
ASSET MANAGEMENT

The Active versus Passive Management Argument Examined

March 2013

Introduction

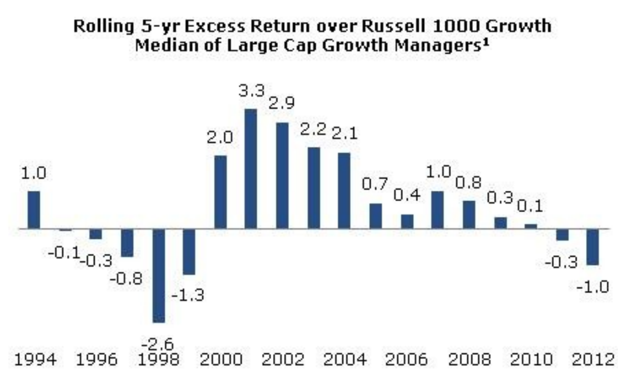
The 'Active' versus 'Passive' argument is once again making the rounds. The new entrants to the passive camp are suggesting that something has fundamentally changed since the great recession, while the long-time index advocates contend that active management has never paid its way. What both are overlooking is that the active versus passive argument is cyclical. Yes, the call for indexation ebbs and flows based on how successful active managers have been in the most recent period. For those of us that have been in the business for more than 25 years, this is our third period where the naysayers declared the end of active management.

One perspective getting little consideration in the debate is that the relative performance experience is different for growth managers than it is for value managers or for core managers. Instead, proponents of indexation generally lump all active management into one group and suggest the fortunes of the whole are similar for each segment. They are not. Nor are they even measured against the same performance standard or benchmark. The ability of a growth manager to beat the growth benchmark generally has very different obstacles than those impeding the capability of value managers to beat value benchmarks. Neither is related to the ability of a core manager to beat the core benchmark, which is often determined by their value or growth bias and the value-growth cycle. Because of these stark contrasts and the fact that most of our products are growth oriented, we will limit the scope of this paper to the most common question we are asked, which specifically is in regards to justifying large cap growth active management.

There is a performance cycle to excess returns of Large Cap Growth managers:

Let's first examine the cyclicality of the argument. The current iteration of the passive argument is that something has fundamentally changed about the market since the great recession that prevents active large cap growth managers from achieving success. This implies that before the great recession these same managers were successful. If you are only looking at the last ten years, that is a logical conclusion. But those with longer memories will remember a very similar cry in 1999 after 5 years of the technology, media, and telecommunications (TMT) surge when the median manager lagged the growth benchmark.

To demonstrate this cyclicality we have constructed a rolling 5-year relative performance comparison of active managers using a widely followed large cap growth universe[1] of separately managed accounts. We used 5 years because that is the 'full cycle' measurement period that most consultants and clients use to judge managers. It also happens to be roughly the length of time since the great recession began and in line with the duration of the TMT bubble. The chart below shows the median for that peer group of trailing 5-year excess return relative to the Russell 1000 Growth index at the end of each calendar year. Notice that the 2012 and 2011 bars show the median managers underperforming the benchmark, hence the current call for a move to passive management. But look at the final years of the TMT bubble in 1998 and 1999, where you will see that the underperformance of the median manager lagged the benchmark by a greater margin than the current experience. For those of you not around for

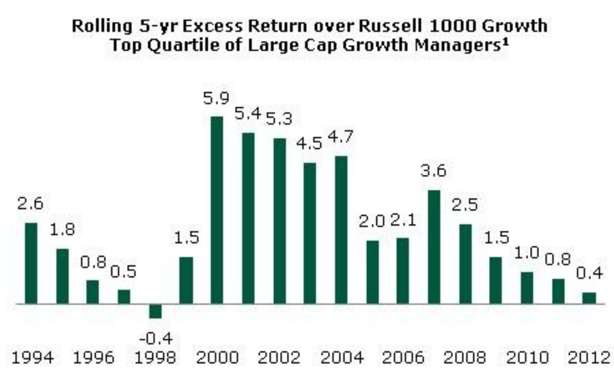


[1] Callan Associates, Inc. U.S. Large Cap Growth Equity Universe

that period, you can only imagine the chorus decrying the advisability of paying for underperformance. For those who lived through those days this is a stark reminder of how loud the refrain was. Yet those investors that opted to neutralize portfolios against the benchmark in 1998 or 1999 did not experience the snapback of active management in the aftermath of the tech wreck. In the trailing 5-year periods ended in 2000 to 2003 the median manager exceeded the benchmark by 2% to 3.3% per year, recouping the underperformance of the previous four years. As previously noted, there was another relative performance cycle prior to 1994, demonstrating similar characteristics. Now in the midst of the third relative performance cycle over the past 25 years, we expect the pattern will continue to repeat in the future as it has in the past.

The Best Managers

It is interesting to us that the passive argument cites median manager performance rather than top performance. The base justification is that the common man on the street does not have the skill to pick the best manager so the median is the appropriate comparison. Are index advocates implying that institutional consultants are equally unskilled at finding the better managers? We certainly can attest that in the last ten to fifteen years the rigor institutional consultants apply to the selection of managers has increased exponentially as sophisticated analytical tools are introduced and career researchers gain experience. Taking into account this consultant investment in research, would it not be reasonable to expect the actual experience of institutions to be closer to the top quartile? Applying this comparison to the same institutional universe as the previous section, the chart above paints a very different picture. The only 5-year period the top quartile manager did not exceed the benchmark was the one ending in 1998. Of the nineteen years covered in the chart, in only three of them did the top quartile manager not at least earn the typical fee paid by a medium sized



[1] Callan Associates, Inc. U.S. Large Cap Growth Equity Universe

institutional client. Accounting for the sweet spot years, when the rolling excess return for the top quartile managers ranged from 5.9% to 4.5%, a skilled consultant who selected better performing managers would find the active manager search process well worth the effort.

Why would there be a performance cycle?

Comparing the last five years to those of the TMT bubble years reveals some differences but also a few important similarities that would impact the ability of growth oriented active managers to exceed the Russell 1000 Growth index. Below are a few we would highlight:

First, ***both periods were driven by macro themes*** that were sustained for multiple years. The period during and after the great recession has been dominated by the 'risk trade', where stock prices intermittently were driven by risk avoidance, then risk seeking. In spite of some very strong earnings trends the focus was on macro events, not on company fundamentals. The correlation of stock price movements hit an all-time high. From the previous earnings peak in 2008, earnings for the Russell 1000 Growth dropped –20%, then rose 57% to a new all time high, 26% above the 2008 peak. In the meantime, the composition of where those earnings were generated went through a dramatic transformation, a topic explored on subsequent pages. Against that backdrop, one might think it should have been a fertile environment for active managers to excel. But stock prices during the period disconnected from earnings and were determined intermittently by; 1) the likelihood of companies going bankrupt, 2) the impact of government intervention on the competitive landscape, to 3) a preference for dividend potential to replace income shortfall from other investments.

The TMT bubble was dominated by the other side of the risk coin, where traditional earnings fundamentals were ignored due to the promise of future profits from game changing technology. Companies went from being judged on maximizing profits, to how well they were spending cash to capture internet users, which would lead to revenues at some future date. Any company that was participating in the transformation of the internet rose in value to nosebleed multiples, while old economy stocks were shunned as dinosaurs of some previous period. Growth managers that did not get on board the new economy bandwagon early and in a big way were left behind. Given his recent fame, it is notable that Warren Buffett was dismissed as a senile old man during the

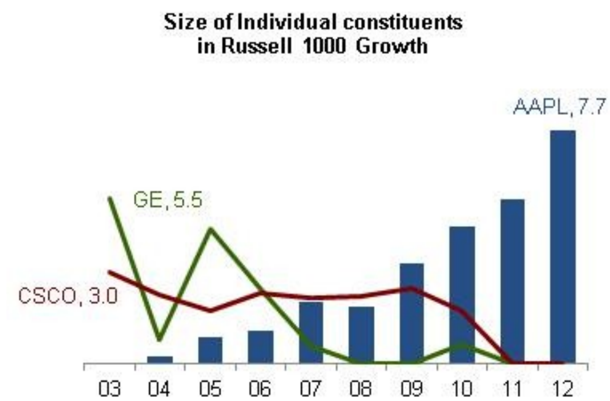
TMT bubble years. We recognize Warren Buffett is not a growth manager, but the treatment he suffered by new economy pundits was a sign of just how one-sided the conversation became. The commonality of the two periods is that during both of them relative earnings prospects between companies did not matter much. Investor attentions were on other things. After the tech wreck, earnings once again became the focus and earnings did matter. Unless this time is different, relative stock returns will increasingly be linked to earnings.

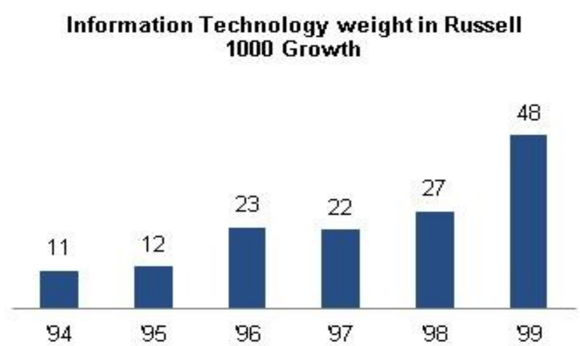
The second similarity of the two periods was that ***the benchmark was going through significant structural change*** during both.

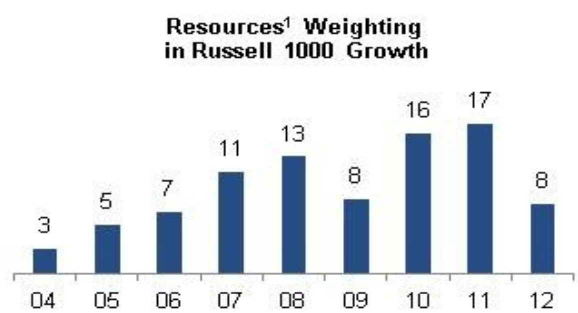
In the TMT boom, the Information Technology sector rocketed from 10% to 48% of the Russell 1000 Growth benchmark (second right chart) amidst a paradigm shift in the composition of the sector. In 1994, businesses were just making the shift from mainframes to personal computers, and by 1999 internet traffic exploded as an enabler of all sorts of business. This transformation was driven by a fundamental change in how business was conducted. Between 1994 and 1999, the importance of analyzing Information Technology almost quintupled. Active managers had to develop expertise in IT businesses, many of which did not even exist in the early 1990's. They also had to make some very uncomfortable allocation decisions about portfolio concentrations.

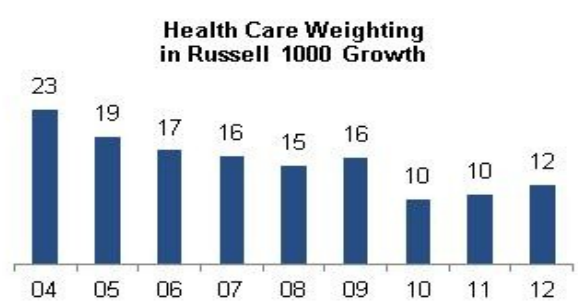
In the late 2000's, the index went through structural changes once again. Relative growth characteristics of various sectors resulted in more wide swings in the composition of the Russell 1000 Growth index. The two bottom charts at right show that resource driven sectors jumped from less than 3% in 2004 to 17% of the index in 2011. The lonely resources analyst went from the junior member of a team to the portfolio manager's best friend. At the same time, the Health Care sector halved from 23% to 10%. The portfolio impact of analyzing product pipelines and health care legislation went from almost a quarter of returns to a neutral input relative to other sectors. Analyzing resource companies could not be more different from crunching the numbers on a Health Care company. Expertise had to go through a period of readjustment and portfolio weightings adapted to the new composition. During this adjustment period, it is not be surprising that relative performance was impacted.

Managers also had to contend with Apple's innovations that led to domination of a technology category, an explosion of earnings, a persistent rise in the stock price, and the company's entry to, and eventual domination of, the Russell 1000 Growth index. The top chart below shows that in 2003, the company was not even in the index, while in 2012 its weight in the index peaked around 8%. This size of concentration creates problems for active managers with holding size risk management constraints built into their process. Many have limits of 5% stated in documents, which can be part of the legal mandate directed by their client. In the five years ending on December







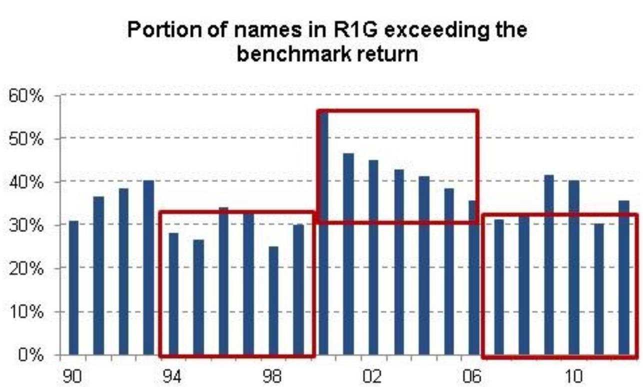


[1] Energy and Materials sectors

2012, Apple's stock accounted for 41% of the return for the index. Active managers with holding size restrictions had a serious headwind. At the same time, significant companies like General Electric, Intel and Cisco were dropped from the growth index. Two of those companies were part of the four horsemen of the TMT bubble. All three are a dominant player in the competitive space they occupy. Active managers would still have to follow them, yet they are not in the benchmark against which the manager is being judged. Active managers should not be excused from adapting to changes like these in the index, but shifts in the index with concentration risk implications can lead to decisions that have less to do with the investment merits of a company and more to do with managing risk to the benchmark.

Much of the success of active managers during periods of significant structural change is related to how well they handled those shifts. So when the structure of the benchmark against which active managers are judged changes significantly, is underperformance the fault of the manager or the index? Instability in the index has unintended consequences for the ability of active managers to add value. Large sector or holding concentrations that occasionally develop in the index can have risk implications incompatible with portfolio construction rules and long held principles of managing absolute risk in a portfolio. When faced with these incompatibilities, it is not unreasonable for active managers to have a period of adaptation.

Finally, the ***breadth of the market has an impact on the opportunity of active managers*** to select stocks that exceed the benchmark return. The chart below shows the percentage of the names in the Russell 1000 Growth index that exceeded the aggregate index return by a significant margin of 10% in each of the years from 1990 to 2012. When this pool of potential winners shrinks active managers have to be much more accurate. Good stock picking is no longer good enough. Great stock picking is needed to outperform. The late 1990's were dominated by a fairly narrow group of TMT names dubbed 'new economy'. Companies not considered to be instrumental in this transition were labeled 'old economy' and struggled to get noticed when the focus of investors was so one-sided. During this time it was common for managers to be bifurcated into those that said they could not justify the lofty valuations of TMT stocks and those that embraced the new metrics used to justify those valuations. The former group underperformed in the boom but made up for it in the bust.



Note that the breadth of returns expanded in 2000 and stayed in a more normal range until 2006. This was a very good period for active managers. The pool of outperformers expanded so active allocations were more likely to add value. As the market peaked in 2007 and volatility increased breadth once again shrunk. While not as consistently narrow as in the TMT boom, the opportunity set once again made great stock picking much more important. Remember this was also a period of time when macro drivers dominated stock decisions so earnings driven investment processes struggled. For example, in 2008, Apple increased its revenues by 43% and net income by 57%. Yet the stock fell -57% and was the second largest negative contributor to the negative index returns of the year. The following year, the company increased its revenues by 23% and net income by 50%. The stock rebounded 147% and was the largest positive contributor to the index recovery. Clearly, something other than earnings was driving the return for this stock at the time. While the pool of winners during the great recession and recovery was not quite as narrow as in the late 1990's, the stock price disconnect from traditional return drivers exacerbated the problem.

This breadth problem is often cited as the structural issue limiting active manager's future ability to add value. "With so much money flowing into ETFs investors are no longer differentiating between good and bad companies", is the common argument. But is today really that different than the TMT boom? In that era investors, especially retail investors, were throwing money at a group of stocks without regard for current earnings prospects. In the early 2000's investors rediscovered the fact that some companies were better than others and should be rewarded. Have investors permanently decided that it is no longer profitable to own the better company than the poor one? There is a cycle to most things in investments. The breadth of winners and emphasis on good companies has undergone cycles in the past and are apt to have them in the future.

Is Passive actually Active

Passive implies no decisions, but is that really how indices are constructed? Active managers use a set of criteria to select the stocks in their portfolio. Most passive investors would probably be surprised that indices are also constructed using a set of criteria. For instance, the first cut is capitalization. In the case of the Russell indices the 1000 largest U.S. stocks that meet their minimum requirement are the beginning large cap universe. This is then allocated between value and growth indices based on the following set of criteria.

- Price-to-book value
- IBES forecast growth
- Historical sales growth

After these screens are applied, the relative weight in the index is determined by the relative capitalization of stock trading in the market. Remember, market capitalization is determined by the number of shares outstanding and the price investors are willing to pay for those shares.

Active large cap growth managers use a variety of growth and valuation metrics similar to those above but also have a couple of biases.

- Active managers tend to prefer high quality companies, often measured by high return-on-equity and sensible leverage ratios.
- They also tend to prefer equal weighted portfolios to better minimize the stock specific risk inherent in large positions.

Why is the portfolio built using the first set of criteria considered passive, when one constructed using other valuation and growth metrics plus the manager biases considered active.

Clearly, active managers make more active decisions than Russell does in constructing their indices and have fewer stocks in their portfolio. But isn't the goal of Russell to limit turnover and have a consistent exposure to a market segment? Each year Russell rebalances the index using the above criteria. While the criteria are generally static, it has been reevaluated and modified on occasion. The passive portfolio actually changes periodically using a set of selection criteria. Similar to the way active managers review and rebalance portfolios, though admittedly on a less frequent basis. In fact, the two-way turnover of the Russell 1000 Growth index has averaged 26% a year over the past fifteen years, and ranged from 15% to 37%.

This is hardly a static portfolio. When an investor buys an index they are implicitly agreeing with the sponsor's screening and construction methodology, similar to the way they would buy into an active manager's screening and construction methodology.

One could also question the nature of how the criteria for index construction were determined versus using them to construct an actual portfolio. Index construction was originally intended to represent the opportunity set of investors. The market cap weighting was logical in this context because there was a greater dollar amount of availability of shares with a large float than those with a small float. But remember the price that investors are paying per dollar of earnings is part of the market cap calculation. This means that the index by its construction rule is overweighting companies with a high price relative to earnings compared to those with a low price relative to earnings. Passive investors often do not understand that relationship and are unintentionally making an active decision to buy high priced stocks.

The criteria used to differentiate between value and growth index constituents may also be mismatched to the passive goal. Originally, this split was constructed for a business purpose, rather than an investment purpose. Consultants noticed that some managers concentrated on valuation decisions in stock selection, while others concentrated on growth criteria. The value and growth indices were developed to give a more specific measurement to judge the skill of managers. The construction rules were developed once again to isolate an opportunity set. As stock valuations fluctuate and companies growth prospects ebb and flow companies move in and out of the index. We have already seen how General Electric and Cisco were taken out of the Russell 1000 Growth index. They did not cease to exist. They were judged to be "a value stock" using the stated criteria and moved to the value index. Another example would be the round trip the Exxon and Chevron made from the value index to the growth index then back again in a period of two years due to a combination of criteria changes and characteristics relative to other companies that were more effected by the great recession. While swings like these may be appropriate to build an investable universe, is it the best way to build a portfolio? Sometimes this structured way of constructing a portfolio works against the passive investor. For instance, the investor deciding to move to a passive growth index product in 1999 put 48% of their portfolio in highflying information technology stocks right before the internet bubble burst.

The implication is that the decision to invest in a passive large cap growth index is an active decision to live with characteristics that the index sponsor's decision rules produces. There are always sector and industry concentrations simply by the number and size of companies available that meet the stated criteria. There is no mechanism to judge whether or not portfolio characteristics are prudent.

Does Passive Deliver as Promised?

The passive argument generally involves the following components

1. Low cost
2. Easy means of diversification
3. Easy means of targeting a desired market
4. Less risk

The low cost argument is indisputable. Active managers cannot maintain the infrastructure and personnel to effectively add value for the fees that index products charge. But are the last three actually true in all cases?

The majority of passive products are market cap weighted, meaning the stocks with larger market capitalization are a larger part of the portfolio. Is it effective diversification to have one holding larger than another? The reality is that generally the bulk of the aggregate return is derived by the big companies in the index. So the passive investor is getting mostly the return of big companies with a bit of boost from their smaller brethren. Further, as previously noted relative sector size is determined by the relative number and size of companies available that fit the selection criteria. Is it proper diversification to have two times more of your assets allocated to Information Technology companies than to Industrial companies purely because there are more of them available? The current standard sector classifications are defined as economic sectors, implying they are sensitive to different parts of the economy. Would it be more diversifying to have equal assets allocated to each of these economic sensitivities? Also noted previously are the large swings in sector weights that occasionally take place. Is a swing in Information Technology exposure from 11% to 48% between 1994 and 1999 delivering an easy means for managing diversification? There are no easy answers to the questions raised in this paragraph. But it is clear that "easy diversification" is not as easy as passive proponents would like to think.

Do indexes deliver an "easy means of targeting a desired market"? Many of the challenges of this objective have been previously highlighted. An index that has large swings in sector and holding concentrations plus companies moving in and out of the growth index by virtue of how they compare to other companies means the index is a bit of a moving target. So which desired market is the passive investor targeting, the one they invested in five years ago or the one they are invested in today? When the passive investor invested in the Russell 1000 Growth index did they desire for their exposure to the Information Technology business to more than quadruple between 1994 and 1999? Or did they desire for their exposure to resource based businesses to jump from 3% to 17% between 2004 and 2011? With swings in economic exposure of those magnitudes the claim of targeting a desired market seems suspect.

Finally, is passive investment less risky? As the information technology sector rocketed to 48% of the passive index, and the median active manager underweighted the sector, was it less risky to be in the index or invested with the active manager? As Apple jumped to 8% of the passive index right before it dropped from $705/share to its present price of $425/share, was it less risky to take a big concentration in the passive index than to have an active manager that could decide to underweight it due to absolute risk of a concentration? Active investors do not always get these calls right, but passive investors have no opportunity to get them right. Passive investors by definition accept the absolute risk inherent in the index they are invested in. When passive proponents talk about lower risk they are referring to relative risk, meaning the risk of a return different than the index. In that respect, they are absolutely right. The passive investor is guaranteed to participate in all the unintended risks resulting from the construction rules and they have no opportunity to mitigate them.

Summary

In conclusion, passive proponents argue that investing in the index delivers simple, low risk diversification at a low cost. We would argue that the low cost part of the argument is true, but the rest of the promise is suspect. It very much depends on how you define diversification and risk. Additionally, quantifying the risk of an ever changing target is far from simple.

Active management has experienced relative performance cycles, which relate mainly to the ebb and flow of the dominance of non-traditional drivers of company performance metrics. When macro drivers are prevalent and the breadth of winners narrows, it becomes more difficult for the average stock picker to outperform. However, top large cap growth managers almost always generate excess returns larger than the fees they are paid. With the aid of advisors accomplished in selecting managers, institutional investors should be able to benefit from those managers with above average skill.

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