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PIPODS: Unifying Best Practices for More Timely, Relevant and Accurate Investment Performance Evaluations

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How do you evaluate investment performance? Good chance that you use both peer groups and benchmarks. A recent survey of 700 consultants and investors, conducted by the Investment Management Consultants Association (IMCA), found that 90% of respondents use peer groups to evaluate investment performance and 95% use benchmarks. In other words, most evaluators use both peer groups and benchmarks to do their job.

The obvious question becomes: Why hasn't the industry embraced a single approach? Suffice it to say that neither peer group nor benchmark approaches are clearly superior unto themselves. Although both have good and bad characteristics, let's identify some of the bad characteristics, with an eye toward possible improvements.

> **WHY HASN'T THE INDUSTRY EMBRACED A SINGLE APPROACH? ... NEITHER PEER GROUP NOR BENCHMARK APPROACHES ARE CLEARLY SUPERIOR UNTO THEMSELVES**

Ranking Biases

Rankings based on *peer groups* are plagued by biases, including survivor, classification and composition biases. Survivor bias raises the hurdle by including only those portfolios that have remained in business or "survived" for the entire evaluation period, which is generally five years or more. The analogy that's frequently used to describe survivorship bias is the marathon with 1,000 runners and 100 finishers. Is the 100th finisher dead last or in the top decile? He's in the top decile.

Classification and composition biases can raise or lower the bar, and it's hard to know which is happening. Classification bias results from trying to pigeonhole managers into style bins, when the fact is, most managers are blends of styles.

Composition bias relates to the collection of funds and products gathered together by the universe provider (against which your portfolio performance is ranked).

In addition to these biases, peer groups suffer from a serious lack of timeliness. It generally takes 4-6 weeks to assemble most peer groups, so clients must be patient, and consultant ingenuity is a must for those early meetings. In the IMCA study, 95% stated that timeliness is important, which is probably one of the reasons that benchmarks are somewhat more popular than peer groups.

Evaluations against *benchmarks* solve most of the problems presented with peer groups but come with a unique and serious problem of their own: it takes decades to determine with confidence whether a manager performed skillfully or not. If you're using a benchmark, sooner or later, you're going to want to know if that 2% return above the benchmark is a big deal or not.

Consequently, common practice is to evaluate a manager against a peer group and to also show a benchmark against that same peer group, thereby compensating for the inadequacies of both approaches.

PIPODs

Now there is a better way to combine these two approaches. This new unification removes the biases of peer groups, is available virtually immediately, and eliminates the waiting-time problem of benchmarks. We call this new approach **Popular Index Portfolio Opportunity Distributions (PIPODs)**. For a fuller description of how PIPODs grew out of an idea called PODS, see "Braking Ranks," *Senior Consultant,* January 2003.

Here's how PIPODs work. Pick your favorite benchmark. Then instead of calculating a single return that is the combined performance of all the stocks in the benchmark, calculate the performance of all of the portfolios that could have been formed from stocks in the benchmark, following some reasonable portfolio construction rules. The result is an "opportunity set" for all managers who are evaluated against the benchmark, and it looks just like a traditional peer group, floating bars and all.

The median of a PIPOD peer group is the return on the index, and the percentiles around the median are

indications of the significance of success or failure. A ranking in the top decile of a PIPOD universe says that there is a 90% probability that skill, not luck, was involved, regardless of the time period. And the answer to the question "What portfolios are in a PIPOD universe?" is *"all of them."* So you are assured of a fair and accurate evaluation.

Benefits of PIPODs

Some examples will demonstrate the benefits of PIPODs.

1. **PIPODs determine significance of out- or under-performance**.

Let's start with significance. If your manager underperformed his/her benchmark by 5% in the 4th quarter of 2002, was that really bad or just "sorta bad?" In other words, how significantly bad was this manager's 5% underperformance? Well, you'll probably say that it depends on the volatility in the manager's style, as represented by his/her benchmark. An underperformance of 5% in a very conservative style would be more disappointing than the same underperformance in a very aggressive, volatile approach, where there's an implied greater tolerance for risk. But where do the lines get drawn? Exhibit 1 delivers the answer to "How bad is this manager's 5% underperformance in the 4th quarter of 2002?

A return of 2.5% lagged the Russell 2000 Small Cap Growth index by 5%, but because this is a volatile mandate, this underperformance is not significant, ranking in the 75th percentile. By contrast, underperforming the more conservative, large S&P 500 by 5% is significant at the 94% confidence level — a BIG deal — indicating a significant management mistake, not bad luck. Don't try this at home kids, unless you have PIPODs.

2. **PIPODs solve the waiting-time problem inherent to benchmarks**.

In the example above we determined significance at a very high confidence level for a short period of time, namely one quarter. Benchmarks require decades to draw similar inferences.

3. **PIPODs resolve the issue of choosing the right benchmark, making your rankings more relevant**.

Consider the manager shown in Exhibit 2, who is being benchmarked against the S&P 500; everyone's favorite benchmark. In the IMCA survey, 96% said they used the S&P 500, making it the most popular choice.

For periods of three quarters or longer, it looks like this manager is sensational, off the tops. But wait a second. If PIPODs are all of the portfolios that could have been held using stocks in the index, this manager must have held stocks outside the index and plenty of them. The manager is not managing to the S&P 500; it's the only way the manager could be off the tops.

Well here's the reason. We fabricated this example to make a point, by using the median returns for small cap value, as shown in Exhibit 3. The point is that a mediocre manager can look really good, or bad, when compared to the wrong index.

As you can see, if it looks too good (or bad) to be true, it probably is. The important thing

Exhibit 1.
Using PIPODs to Determine Significance

How bad was missing the benchmark by 5% in the 4th Quarter of 2002?

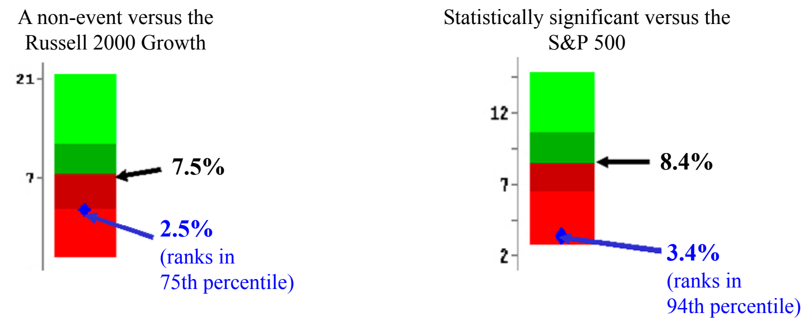
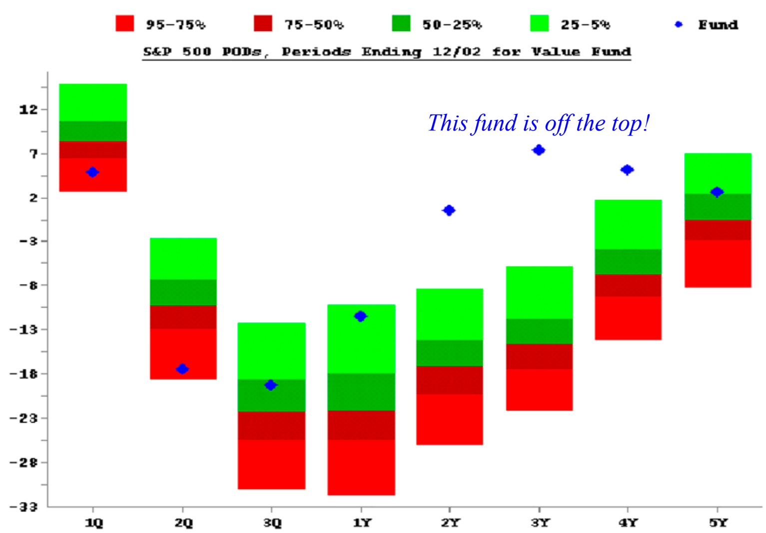


Exhibit 2.
PIPOD Ranks versus S&P 500



Fund	4.9	-17.4	-19.2	-11.4	.5	7.4	5.1	2.7
5%	14.7	-2.7	-12.3	-10.2	-8.4	-5.8	1.6	6.9
25%	10.6	-7.4	-18.6	-17.9	-14.2	-11.8	-3.9	2.3
50%	8.4	-10.3	-22.3	-22.1	-17.1	-14.6	-6.8	-.6
75%	6.4	-13.0	-25.5	-25.5	-20.4	-17.5	-9.3	-3.0
95%	2.7	-18.7	-31.1	-31.8	-26.1	-22.1	-14.2	-8.2

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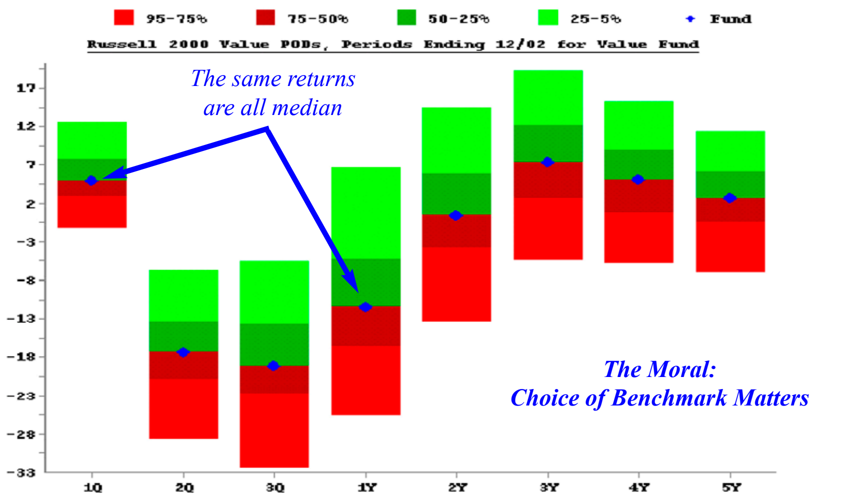
Exhibit 3.
PIPOD Ranks versus Russell 2000 Value



	1Q	2Q	3Q	1Y	2Y	3Y	4Y	5Y
Fund	4.9	-17.4	-19.2	-11.4	.5	7.4	5.1	2.7
5%	12.5	-6.8	-5.6	6.6	14.4	19.2	15.2	11.2
25%	7.6	-13.4	-13.7	-5.3	5.9	12.1	8.8	6.1
50%	4.9	-17.4	-19.2	-11.4	.5	7.4	5.1	2.7
75%	2.8	-20.9	-22.8	-16.6	-3.8	2.7	.7	-.5
95%	-1.2	-28.7	-32.4	-25.6	-13.4	-5.4	-5.8	-6.9

for you, the advisor, is that you get the most accurate look. PIPODs deliver fairness and accuracy by letting you select the best benchmark for your manager and by feeding back some checks on reasonableness for your consideration.

4. **PIPOD universes are more timely**.

PIPODs are available monthly, mere days after each month's end. March PIPODs will be available around April 3. April PIPODs will be coming out at about the time that traditional peer groups for March are being released. Your only other choice for timely monthly peer groups is mutual funds, which clearly don't make sense for separate accounts because mutual fund returns are net of fees, whereas separate accounts are usually evaluated gross of fees.

5. **PIPODs enable customization of peer group rankings**.

The other benefit of PIPODs is the ability to further customize the peer group to your manager's degree of diversification, as characterized by the number of securities typically held. More diversification (more names) shrinks the range of the floating bar, and less diversification (more concentration) expands the range. This adds to the accuracy and fairness of the evaluation.

Conclusion

So there you have it. Unifying the better aspects of peer groups with those of benchmarks creates a performance evaluation model that is fairer, more accurate and much more timely than current approaches. It produces indications of significance that are unattainable elsewhere. The current practice of showing both peer groups and benchmarks on the same page doesn't solve the many problems with these two approaches, but it does confirm that the evaluator is aware of the problems. By utilizing Popular Index Portfolio Opportunity Distributions, an advisor can truly add value for his client by reviewing and acting on timely, relevant performance rankings … while there is still time to act, rather than react to the market. ■

About the Author

Ronald J. Surz, CIMA, MBA, MS, is president of PPCA, Inc., a firm specializing in attribution analysis and the developer of PIPODs. Ron earned an MBA in Finance, an MS in Applied Mathematics and holds a Certified Investment Management Analyst (CIMA) designation. In addition to being member of AIMR's Investment Performance Council (IPC) which develops and maintains investment performance presentation standards, he is also a member of the Board of Directors of IMCA.

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