Russell Investments

Russell Research

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Origins of the Russell Investment Discipline Indexes

Investors familiar with the wide range of Russell indexes may look at the new Russell Investment Discipline Indexes (IDIs) and wonder where they came from and how they fit into the overall Russell index picture. The IDIs are an innovation for Russell in at least two ways: they track the performance of more specialized investment habitats than a broad market, and they are not strictly capitalization-weighted (float-adjusted). Unlike, for example, the Russell 1000® Growth and Value indexes, which represent segments of the market that cumulate to the Russell 1000® broad market index, each IDI is designed to reflect the average performance of a group of managers who share a similar investment philosophy. To help investors understand how and why the IDIs differ from Russell's benchmark indexes, this paper offers a historical perspective on the overall evolution of Russell Indexes.

The origin of the Russell Indexes: manager research and evaluation

One of Russell's first lines of business was pension investment consulting. One of the first services Russell offered to its clients was the evaluation of money managers, and one of the earliest Russell creations to support this service was the construction of peer groups of similar investment products, known as manager universes. Investors could look at the average returns and characteristics of these universes to evaluate an individual manager's performance. Peer group universes helped answer important questions, such as: (a) did a certain manager outperform or underperform the universe average, and (b) in what quartile of the distribution of universe returns did the manager's returns fall?

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Market indexes were also used to evaluate the performance of money managers for pension fund clients. In the late 1970s and early 1980s, only a few U.S. equity market indexes existed for evaluating managers, either singly or as groups (manager universes). The virtue of an index when compared to a peer group universe is that an index is objective and not subject to the behavior of investment managers. For example, during the 1974 energy crisis, the average value style manager shied away from oil companies; in fact, all managers in the value style universes performed poorly relative to existing indexes. Investor fads or collective sentiment can be expected from human group behavior. Index exposures and performance, in contrast, are based on a specified set of rules designed to capture a certain market segment or investment approach in a consistent manner and thus to provide benchmarks that remove the crowd-following element from performance evaluation.

In the early 1980s, most Russell clients, like everybody else, used Standard and Poor's 500® Index to benchmark all of their U.S. equity managers. Several of Russell's very large clients complained that this index was inadequate, because the behavior of managers who specialize in medium and small capitalization companies could not be evaluated properly; the S&P 500 seemed never to have all of the companies that their managers held. Plan sponsors were in a position where managers could justly complain that they were not being fairly evaluated, because so many of the stocks in their portfolios were not in the index, and stocks they would never choose to own were. Plan sponsors who used the more comprehensive Wilshire 5000 Total Market Index for evaluation ran into similar complaints, for a different reason – namely, that the index contained many stocks the managers could never consider purchasing, due to lack of liquidity.

The first Russell indexes: measuring the investment opportunity set of active managers

Because the available indexes for market measurement and manager evaluation had proved inadequate, Russell research led to the creation, in 1984, of the broad market Russell 3000® Index, which contained the 3,000 largest U.S. companies and represented approximately 98% of the listed U.S. equity market. The original master list of stocks for the Russell 3000 was based on the aggregate portfolio of all of Russell's clients at the time. Stocks outside the Russell 3000 were so small that they were rarely held by investment management companies. A major innovation of the Russell 3000 was to remove from its holdings the capitalization that was not actually traded in the marketplace. Adjustments were made to remove shares of closely held or otherwise unavailable stocks, so that the index reflected what was really available for investing and trading – "the float." The Russell indexes were the first float-adjusted indexes, truly representing the investible opportunity set of active managers.[2]

Manager style and further index innovation

It became apparent to Russell's equity analysts that certain groups of managers believed they could achieve superior returns by consistently investing in stocks with special qualities or by following specific investment philosophies. Russell then constructed universes that sorted managers into "baskets" based on the similarity of their portfolio characteristics.

The Russell 1000 and Russell 2000® indexes were carved out of the Russell 3000 to represent the large and small cap segments of the U.S. market, as well as the natural habitats of large and small cap managers.

Russell's manager research analysts further observed that money managers' portfolios contained stocks that could be roughly grouped into two additional categories, besides large and

[2] For a full description of the methodology, see "Russell U.S. Equity Indexes Construction and Methodology," June 2011, available at www.russell.com/indexes.

small cap – namely, growth and value – thus identifying another consistent factor in stock returns. Russell created its growth and value indexes in 1987. What makes a stock a growth stock or a value stock is of course a matter of investment opinion. Russell investigated many stock characteristics to identify growth and value stocks. After much research, it was decided that the best style index approach was to keep the descriptive variables simple.[3] Dividing the broad market index in half at the capitalization-weighted median book-to-price ratio produced indexes that had nearly the same returns and characteristics as Russell's value and growth manager universes.[4]

Investment discipline universes and indexes

Manager research at Russell also focused on the creation of "normal portfolios" for specific managers or groups of managers who shared similar biases or strategies. The choice of the word "normal" to describe a portfolio was intended to capture the idea that for a given manager there might exist a habitat of securities that is similar to the manager's average portfolio over time. The habitat might not be static, however. A normal portfolio might be thought of as a highly customized benchmark for the manager.[5] Using various equity characteristics in combination, analysts created portfolios that mimicked investment managers' portfolio behavior or their investment disciplines more closely than the more general style indexes. The logic for this approach flows from the way many managers create their portfolios. Investment managers typically screen a universe of stocks on the basis of specific characteristics, eliminating stocks not of interest to produce a master list from which they select their final portfolios. To the extent that Russell analysts could reproduce the exclusion criteria of a manager's portfolio, they defined portfolios that had exposures similar to those of the manager. Russell research by the present author in 1987 looked at applying the normal portfolio logic to narrow groups of managers who had similar investment philosophies, or disciplines. The concept of an investment discipline index was demonstrated, but development of these indexes was not pursued at that time.

Further index innovation: fine-tuning style methodology and expansion to other markets

For the next two decades, Russell focused its index resources on refining and expanding its benchmark index family, developing the mid-cap indexes, sector indexes and other subdivisions of the Russell 3000. Russell also created a series of global indexes, the first to measure world equity markets from a global rather than country-first perspective; the series was launched in 2007.[6] Improvements in the growth and value style indexes were pursued as well. The breakpoint methodology – in which the stocks above a capitalization-weighted median book-to-price ratio were put in the value index, and the rest of the stocks were put in the growth index – was changed to a nonlinear methodology, so that the stock at the capitalization-weighted median would be 50% in the value index and 50% in the growth index. Better measures for the

[3] Kelly Haughton and Jon Christopherson, "Equity Style Indexes: Tools for Better Performance Evaluation and Plan Management," Russell white paper, September 1989. This paper explains how the Russell Growth and Value indexes were created. It was distributed only to Russell clients. The indexes were in use before the paper was published. The paper is included in Chapter 25 of *Portfolio Performance Measurement and Benchmarking* by Jon A. Christopherson, David R. Cariño and Wayne E. Ferson, New York: McGraw-Hill, 2009.

[4] S&P/BARRA followed Russell and applied the median price-to-book criteria to the S&P 500 to create the S&P/BARRA growth and value indexes.

[5] See "Normal Portfolios and Their Construction" by Jon Christopherson, in Frank J. Fabozzi (ed.), *Portfolio and Investment Management* (Chicago, IL: Probus Publishing, 1989), pp. 389–397. Also see "Selecting an Appropriate Benchmark: Problems with Normal Portfolios and Their Uses" by Jon Christopherson, Russell Research Commentary, April 1993.

[6] See "Defining Global Capitalization Size Tiers" by Barry Feldman, Russell Research, January 2010, and "Russell Global Indexes Construction and Methodology," June 2011, available at www.russell.com/indexes.

"growthiness" of stocks were also evaluated, resulting in additional variables being added to the methodology.[7] These developments and many others were the result of Russell's continuous pursuit of better tools for investors.

Renewed interest in investment discipline indexes

In early 2007, Russell's large cap equity portfolio managers expressed a wish for more tools for control of exposures in Russell's multi-manager funds. A preliminary look, in the late 1980s, into the potential for investment discipline indexes was revisited. The idea of adding a portfolio to a multi-manager fund that replicated an investment discipline index came back into view.

The Russell manager research team, index group, and capital markets research group began to investigate whether the creation of Russell IDIs was feasible and economically viable. The landscape for indexes had changed dramatically since the 1980s. For example, the new exchange-traded funds (ETFs) industry made index portfolios available on a share-by-share basis for any size investor who wanted exposures to a specific market or investment discipline. Russell determined that the Investment Discipline Indexes should be created and made available, preferably through ETFs, to meet the needs of a wide variety of investors.

Considering the range of needs, Russell has created 10 U.S. IDIs.[8] These indexes and their corresponding investment disciplines are:

Russell U.S. Large Cap Aggressive Growth Index – The Russell U.S. Large Cap Aggressive Growth Index targets companies with near-term forecasted earnings that are expected to increase at a faster rate than those of the average company's earnings. This approach results in the index emphasizing those companies that are perceived to have the strongest prospects for near-term earnings growth.

Russell U.S. Large Cap Consistent Growth Index – The Russell U.S. Large Cap Consistent Growth Index targets companies with long-term earnings growth expectations that are above those of the broad market. The consistency of historical earnings growth is also a primary consideration among investors following this discipline. The emphasis on consistency of earnings also results in the index having exposure to companies with historically above-average levels of profitability and conservative balance sheets.

Russell U.S. Large Cap Growth at a Reasonable Price (GARP) Index – The Russell U.S. Large Cap GARP Index targets companies that are moderately priced based on their long-term forecasted earnings growth relative to their price-to-earnings ratio. This discipline also emphasizes higher-quality companies with historically stable balance sheets and consistent earnings trends. Managers following this strategy tend to prefer companies with consistent business operations that have historical moderate rates of growth. These investors also have some regard for valuation and therefore are more conscious of the price they pay for a stock.

Russell U.S. Large Cap Equity Income Index – The Russell U.S. Large Cap Equity Income Index targets companies that have historically paid dividends and that exhibit traits that allow for some level of conviction as to the sustainability of the dividend, along with less forecasted downside risk relative to the Russell 1000® Value Index. While this index emphasizes dividend yield, it does not target a specific yield premium or targeted income objective.

Russell U.S. Large Cap Low P/E Index – The Russell U.S. Large Cap Low P/E Index focuses on stocks that are trading at the lower ends of their ranges of historical trading multiples and/or trading at lower multiples than are their sector peers. Some investors look at a stock's earnings-

[7] For the most recent developments in style index methodology, see "Russell style index methodology update" by David Cariño, Russell Research, April 2011.

[8] For full details of the methodologies, see "Russell Investment Discipline Indexes (IDIs): Construction and Methodology," September 2011, available at www.russell.com/indexes.

to-price, book-to-price, cash-flow-to-price or sales-to-price multiples to assess its value. Over time, these multiples tend to trade within a range. Stocks that are trading at valuation ratios below their historical averages or those of their sector peers may be viewed as attractively valued.

Russell U.S. Large Cap Contrarian Index – The Russell U.S. Large Cap Contrarian Index focuses on stocks whose returns have meaningfully lagged those of the market and their sector peers. Contrarian stocks tend to have experienced this degree of underperformance due to deterioration in a company's business fundamentals. Investors following this discipline see potential for meaningful upside in terms of a stock's return if the company's business fundamentals improve.

Russell U.S. Small Cap Aggressive Growth Index – The Russell U.S. Small Cap Aggressive Growth Index targets companies with near-term forecasted earnings that are expected to increase at a faster rate than those of the average company's earnings. This approach results in the index emphasizing those companies that are perceived to have the strongest prospects for near-term earnings growth.

Russell U.S. Small Cap Consistent Growth Index – The Russell U.S. Small Cap Consistent Growth Index targets companies with long-term earnings growth expectations that are above those of the broad market. The consistency of historical earnings growth is also a primary consideration for investors following this discipline. The emphasis on consistency of earnings also results in the index having exposure to companies with historically above-average levels of profitability and conservative balance sheets.

Russell U.S. Small Cap Low P/E Index – The Russell U.S. Small Cap Low P/E Index focuses on stocks that are trading at the lower ends of their ranges of historical trading multiples and/or trading at lower multiples than sector peers. Some investors look at a stock's earnings-to-price, book-to-price, cash-flow-to-price or sales-to-price multiples to assess its value. Over time, these multiples tend to trade within a range. Stocks that are trading at valuation ratios below their historical averages or those of their sector peers may be viewed as attractively valued.

Russell U.S. Small Cap Contrarian Index – The Russell U.S. Small Cap Contrarian Index focuses on stocks whose returns have meaningfully lagged the market and their sector peers. Contrarian stocks tend to have experienced this degree of underperformance due to deterioration in the company's business fundamentals. Investors following this discipline see meaningful upside in a stock's return if the business fundamentals of the company improve.

IDIs and the Russell style index framework

The definition of the IDIs has certain implications that investors should be aware of. The Investment Discipline Indexes do not have all the characteristics of more general style indexes, such as the Russell Growth and Value indexes. An IDI might fit within a general investment style, but the collection of IDIs is not intended to completely cover the broader style within which they fit.

One of the hallmarks of the Russell benchmark index families (such as the Russell 3000 and the Russell Global Index and their associated style indexes) is that they add up collectively to some market segment. This is a design characteristic that makes Russell's benchmarks fully representative of the market and thus makes portfolio construction easier for Russell clients. For example, the Russell 1000 Growth and Value indexes sum to match the Russell 1000 (large cap) Index so that if a plan sponsor has a set of value managers that spans the large cap value sector but does not have any growth managers, the sponsor can add the Russell 1000 Growth Index to the value managers and approximate the exposures of the Russell 1000 Index. This makes plan structure easier to maintain.

This design characteristic was not carried over to the IDIs. A collection of Russell Investment Discipline Indexes will not sum up to a higher-level parent index. The IDIs are not purely capitalization-weighted indexes, because the investment discipline universes they seek to reflect generally do not have capitalization-weighted portfolios in aggregate. Rather, the investment discipline universe aggregate portfolios tend to be more equal-weighted, although weighting may vary.

Potential applications of the IDIs

The need to control complex exposures in a large multi-manager portfolio was Russell's impetus for the creation of the IDIs. To exert the control, a fund must invest in the portfolio represented by the IDI, either directly through a separate account or through a vehicle such as an ETF. Since IDIs typically hold between 100 and 300 stocks, frequent changes in exposure to an IDI is best implemented through ETF vehicles, given that buying or selling 100 to 300 stocks may not be a cost-effective solution when transaction costs are considered.

Exposures to IDIs can be used to address various challenges in portfolio construction:

> **Adjusting exposures to specific strategies.** ETFs based on IDIs can be used as mechanisms to consistently adjust a fund's allocation to specific investment disciplines. For example, the excess-return proposition for managers in the GARP discipline has traditionally been viewed as highly macroeconomic scenario-dependent. As a result, GARP strategies have gone through periods of positive excess returns that were followed by extended periods of negative excess returns. GARP strategies can also provide a source of diversification, particularly against earnings momentum strategies. Therefore, portfolio managers may want the GARP exposure, but may want to be tactical in how they weight that exposure. Purchasing an IDI portfolio as an ETF can be a quick way to obtain the desired exposure. Moreover, short-selling an IDI-based ETF within a multi-manager fund that has an actively managed portfolio of the same discipline can be a way to reduce the exposure. Therefore, an IDI-based investment can serve as an effective tool for portfolio managers who favor a tactical approach to gaining specific investment discipline exposures.
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> **Beta exposure to strategies within an actively managed fund.** IDI-based investments may not appear to be ideal solutions for funds seeking to maximize excess returns, since they seek beta exposure to a subset of active managers. However, combining IDI-based investments with actively managed portfolios may provide a means of separating alpha from beta and allow investors to separate how they pay for alpha and beta. A multi-manager portfolio constructed from active managers in whose abilities the fund sponsor has high confidence, combined with IDI-based portfolios (either separate accounts or ETFs) for filling gaps in specific strategies, can be a cost-effective approach. For funds (such as small pension funds) constrained as to the number of managers they can hire, due to their small asset bases, IDI-based investments can provide a cost-effective means of filling identifiable holes in portfolio structure. IDI-based portfolios may be most effectively suited to instances where an investment manager is seeking to improve a fund's diversification and reduce any scenario dependency in its overall profile. This solution may not directly add to the excess return proposition of the fund, but it can manage risk, thereby potentially adding to the Sharpe ratio.
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> **Transition management plug.** IDI-based ETFs can serve as short-term solutions for clients who are transitioning managers. In instances where a manager's services must be promptly terminated (e.g., due to an organizational event), clients might not have a replacement manager ready, nor might they have had enough time to seek board approval. An IDI-based ETF could serve as a temporary plug in the client's portfolio to ensure maintenance of consistent balance in the portfolio. Once a replacement manager is identified and approved, the ETF would be liquidated to provide funds for the new manager.

Conclusion

The Russell Investment Discipline Indexes represent something new for Russell. The major Russell indexes measure a market or a market segment by capturing one or two factors that drive stock performance. The Russell 1000 Value Index, for example, seeks to capture the return of large cap U.S. stocks that have low valuation measures. The Russell 2000 Index seeks to capture the returns that small stocks can generate. The Investment Discipline Indexes are more complex than that. The IDIs more closely track the performance of specific investment disciplines than other Russell indexes do, because they seek to capture the investment logic of the disciplines. In this sense they are – to borrow a phrase from the artificial intelligence field – knowledge-engineered portfolios.

Russell believes its Investment Discipline Indexes will be attractive to many investors; there will be times when investors seek immediate, effective and economical exposure to these important investment disciplines. ETFs based on IDIs can provide a flexible and relatively inexpensive means of capturing the return and risk exposures the investment disciplines seek to maintain. The IDIs are founded in Russell's decades-long research and expertise on investment managers, markets and strategies.

For more information about Russell Indexes call us or visit www.russell.com/indexes.
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Disclosures

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