

A Practical Approach to Building Dividend Indexes

Sanjay Arya, CFA and Paul Kaplan, Ph.D., CFA

Morningstar, Inc.
225 West Wacker Drive
Chicago, IL 60606

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*The authors are Director of Indexes and Vice President, Quantitative Research of Morningstar, Inc., respectively. E-mail correspondence should be sent to sanjay.arya@morningstar.com. We thank Catherine Sanders, Matthew Gries and John Rekenhaller for their help in preparing this article.

Introduction

Dividend is a hot word on Wall Street these days. Once considered boring and stodgy, dividend-paying stocks are enjoying renewed attention from investors. It is not hard to see why, considering the bear market that ushered in the new millennium, historically low bond yields, and Congress' 2003 decision to give favorable tax treatment to dividends. Another advantage is best illustrated by the old adage that a bird in the hand is worth two in the bush--a paid dividend secures a decent chunk of total return, regardless of what happens to share price.

Along with the heightened interest in dividends has come a spate of new investment products offering investors exposure to income-producing stocks. As enthusiasm for equity-income investing has grown, so too has the need for corresponding indexes and benchmarking tools. Typically, investors have had to rely on the S&P 500 Index, or more recently the Russell 1000 Value Index, as benchmarks for equity-income strategies. The fit, however, is tenuous, as neither index specifically focuses on the dividend-paying stocks driving portfolio managers' strategies. To fill this gap, a number of dividend indexes have been introduced in recent years. In focusing on dividends, however, several of these indexes have strayed from some established principles for what constitutes a good index. In this paper, we review the principles for building effective indexes and explore how they can best be applied when constructing dividend indexes.

Back to Basics

In recent years, indexing has become increasingly complex, with thousands of indexes in every shape and size serving every sort of purpose imaginable. The two primary applications of indexes are:

- 1) To serve as benchmarks for actively managed funds, and
- 2) To provide investable portfolios for index funds (See Siegel [2003]¹.)

¹ Siegel names two other key uses for broad-market indexes--gauges of sentiment and asset-class proxies--neither of which are particularly relevant in the case of the more specialized dividend indexes under consideration in this paper.

Scholars over the years have identified various criteria that enable indexes to effectively fulfill these basic purposes. To be effective as a benchmark, for example, an index should be a passive representation of a manager's investment process, incorporating the prominent and persistent characteristics of a manager's portfolio in the absence of active management. In other words, the benchmark should contain those securities from which the manager typically selects, weighted in a manner consistent with the manager's investment process. (See Bailey [1992]².) Generally, the more complete the benchmark--the broader and deeper its coverage--the more effectively it represents a manager's universe. (See Schoenfeld and Ginis [2004].)

When an index is to be used as a portfolio for index funds, additional criteria apply:

- **Market-cap weighted.** Market-cap weighting is widely considered to be the central organizing principle of good index construction. It is usually implemented with a "float" adjustment, which subtracts the number of closely held and illiquid shares from the number of shares outstanding. The advantage of market-cap weighting is that the weights adjust automatically as share prices fluctuate, eliminating the need for the frequent and expensive rebalancing that can occur with other weighting schemes. (See Platt, Pope, and Rakvin [2004].) Moreover, a float-adjusted market-cap-weighted portfolio is macro consistent, meaning that if all investors held such a portfolio, all available shares of its constituent stocks would be held with none left over. With all other weighting schemes, it is mathematically impossible for all investors to hold the index portfolio. (See Siegel [2004].)
- **Investable.** It is important that an index represent an investable set of constituents and a viable investment alternative. (See Platt, Pope, and Rakvin [2004].) In other words, an index fund must be able to replicate the index without undue liquidity concerns.
- **Low turnover and related transaction costs.** To keep transaction costs to a minimum, an effective index should not require excessive turnover. This is particularly important as the

² Bailey goes on to specifically list six qualities of a valid benchmark: unambiguous, investable, measurable, appropriate, reflective of current investment opinions, and specified in advance.

market is divided into smaller segments, because turnover can have a greater impact on a more concentrated constituent base.

Applying the Principles

We now turn to the question of how well the principles of index construction have been applied to dividend-based investment strategies. In the past, equity-income managers have had to rely primarily on the S&P 500 to benchmark their funds. In fact, among equity-income funds that list benchmarks in their prospectuses, four out of five use the S&P 500, while the rest use the Russell 1000 Value Index. Unfortunately, neither reflects very accurately the way these dividend-oriented managers invest. For example, both the S&P 500 and the Russell 1000 Value contain many stocks that do not even pay dividends.

To meet the needs of dividend-seeking investors, several new indexes have been launched in recent years. These include Dow Jones Select Dividend; Mergent Broad Dividend Achievers and Mergent Dividend Achievers 50; S&P Dividend Aristocrats and S&P High-Yield Dividend Aristocrats. By focusing on dividend-paying stocks, these indexes more closely mirror the investment style of equity-income managers. In so doing, however, they end up straying from some of the other principles of index construction.

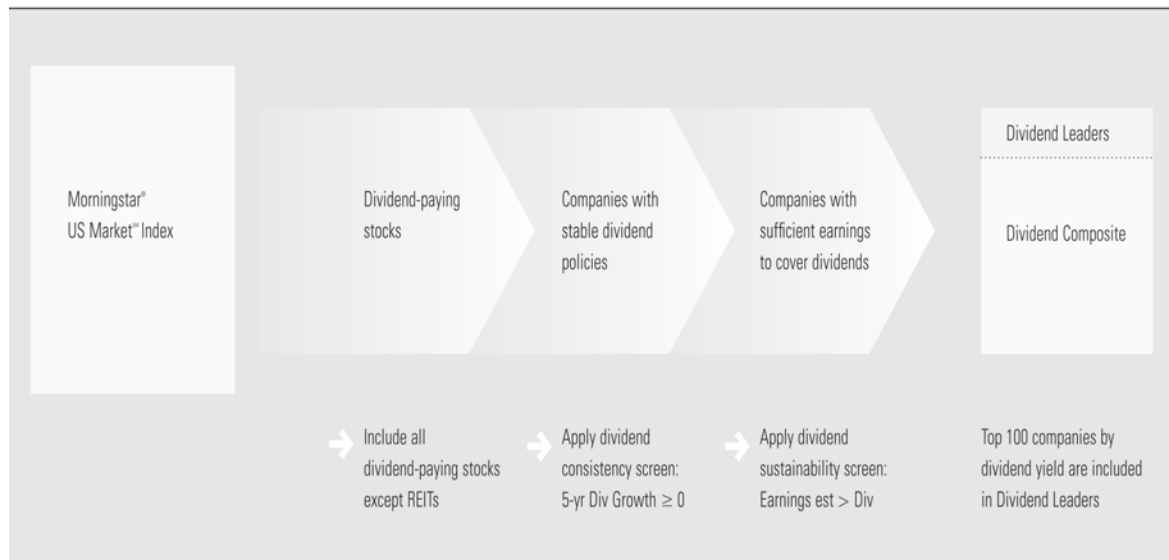
- By focusing on relatively few stocks, many of these indexes are too narrow to effectively represent a manager's investment universe (see Appendix 1).
- By disregarding market cap and weighting instead by dividend per share or yield, these indexes make no distinction between large and small companies. A \$100 million company with a 4% yield may get the same weighting as a \$100 billion company with a 4% yield. This may lead to some investability constraints as investors try to buy significant stakes in smaller, higher-yielding companies.
- Due to ever-fluctuating yields and dividends, these strategies engender significant turnover and therefore higher transaction costs--a key concern for cost-conscious index investors.

A New Approach

To address some of these issues, Morningstar has developed a new set of dividend-based indexes: the Morningstar Dividend Composite Index and the Morningstar Dividend Leaders Index, which consist of the 100 highest-yielding stocks of the Composite Index. Like the other dividend indexes, both Morningstar indexes focus exclusively on dividend-paying stocks. (See Exhibit 1 for specific selection methodology.) However, a new weighting scheme aims to improve macro consistency, investability, and turnover.

Exhibit 1: Morningstar Dividend Leaders Index Construction Methodology

Dividend Indexes Construction Process



The Available-Dividend Philosophy

Like the other dividend indexes, the Morningstar indexes aim to maximize yield by using a fundamental, dividend-based weighting system. Unlike the other indexes, however, the Morningstar indexes take into consideration the principle of macro consistency by using an available-dividend model that emphasizes company size as well as dividends. Morningstar defines available dividends as:

Dividend Per Share × Shares Outstanding × Float Factor.

For example, suppose Company A pays a dividend of \$3 per share and has 4 million shares outstanding. The company is closely held with only half of its 4 million shares are available for purchase in the market.

Company A Available Dividend = \$3 per share x 4 million shares x 0.5 = \$6 million

Company B, on the other hand, pays a dividend of only \$2 per share, but it has 6 million shares outstanding, all of which are available for purchase.

Company B Available Dividend = \$2 per share x 6 million shares x 100% = \$12 million

Giving Company B twice the weight of Company A in the index, despite Company B's lower per-share dividend, makes the portfolio more scalable.

Value of Scalability

The portfolio scalability provided by an available-dividend model has advantages for investors and portfolio managers alike. Focusing on stocks that have an ample supply of dividends better protects investors from supply/demand imbalances that can drive up stock prices as too many buyers vie for too few shares. Furthermore, weighting according to available dividends enhances investable capacity in these index vehicles, which allows for greater potential economies of scale as portfolio size increases.

To illustrate, we calculated the portfolio size at which the various dividend indexes would breach the legal restriction prohibiting portfolios from holding more than 10% of a security's total shares outstanding. Exhibit 2 presents the results. Due to its focus on company size and availability of dividend, the Morningstar index allowed significantly higher investment capacity.³

³ We measure the investment capacity of a portfolio as the smallest value of 10% of the outstanding market-cap of each stock divided by its portfolio weight.

Exhibit 2: Investment Capacity of Dividend Indexes

Dividend Index	Portfolio Value (\$ Billion)	Weighting Scheme
Mergent Dividend Achievers 50	2.66	Yield
S&P High Yield Dividend Aristocrats	3.83	Yield
Dow Jones Select Div	8.54	Dividend per Share
Morningstar Dividend Leaders	71.37	Available Dividends

Based on available portfolios as of Dec 31, 2005

Turnover

With any type of index fund, limiting costly turnover is always an objective. As discussed earlier, market-cap weighting schemes are best for minimizing turnover. However, because available dividends are correlated with float-adjusted market cap, an available-dividend weighting scheme should theoretically have lower turnover than the other models used by dividend indexes. To create an apples-to-apples comparison of how the various weighting methodologies affect turnover, we took the Morningstar Dividend Composite, applied the weighting systems used by the various dividend indexes, and calculated the average annual turnover that results from each scheme.

Exhibit 3: Portfolio Turnover for Weighting Schemes used by Dividend Indexes

Weighting Scheme	Annualized Turnover (%)
Float-Adjusted Market Cap	7.59
Available Dividend	22.41
Dividend per Share	32.11
Equal Weighting	32.68
Dividend Yield	46.37

Average annual turnover using the Morningstar Dividend Composite portfolio for 1997-2005

As Exhibit 3 shows, while float-adjusted market-cap has a minimal amount of turnover, the available-dividend model does indeed produce lower turnover than the other approaches.

Choosing the Right Tools

When choosing a dividend--or any other--index, it is important to consider what purpose the index will serve. If the dividend index is to be used as a benchmark to evaluate performance of an equity-

income fund, then breadth and appropriateness will be important factors. A benchmark index should contain enough names to adequately represent the manager's investment universe, and the benchmark's characteristics should be in line with those of the fund. If the dividend index is to be used as the basis for an index fund, then investability, turnover, and macro consistency are key considerations.

In the case of the Morningstar indexes, Dividend Leaders may make a better passive index fund than would the Composite. Dividend Leaders' shorter list of names allows for easier replication, and its higher-yielding stocks can deliver to investors a healthy income stream. The broader Composite Index, on the other hand, would be more appropriate as an equity-income benchmark.

Conclusion

Building specialized indexes with specific objectives, such as high-yielding dividend indexes, can require specialized methodologies that differ from accepted broad-market indexing techniques. However, as we have demonstrated, paying attention to general indexing principles can help make specialized indexes more useful as tools for investors.

Appendix 1

Comparison of Investable Dividend Indexes

Index	Morningstar® Dividend Leaders™	DJ Select Dividend	Mergent Dividend Achvs 50	S&P HY Divd Aristocrats
Universe	Morningstar® US Market™ Index	DJ U.S. Total Market Index	Dividend-paying companies domiciled in U.S.	S&P 1500
Dividend Benchmark Index	Morningstar® Dividend Composite™	None	Mergent Dividend Achievers	None
Number of Stocks	100	100	50	50
Index Inception	June 30, 1997	December 31, 1991	January 29, 1999	December 31, 1989
Transparent, Rule-based Methodology	Yes	Yes	Yes	Stocks in S&P 1500 are selected by committee
Reconstitution Frequency	Annual	Annual	Annual	Annual
Dividend Consistency Screen	5-year dividend growth ≥ 0	5-year dividend growth > 0	Increased dividend each of past 10 years	Increased dividend each of past 25 years
Dividend Sustainability Screen	Earnings est $>$ Dividend	5-year avg Div \oplus EPS $\leq 60\%$	None	None
Weighting Methodology	Available dividend: DPS \otimes number of shares \otimes float	Dividends per share	Dividend yield	Dividend yield
Individual Security Capping	Yes; max weight 10%	No	No	No

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