

Fundamentally Weighted Indexes: An Alternative to the S&P 500?

Fundamental strategies represent an evolved way of looking at the market. Find out how they differ from market-cap strategies.

Many funds track indexes—baskets of stocks that represent a particular market or a portion of it. It's not possible to invest directly in an index. But indexes are useful for a lot of other reasons. Most exchange-traded funds (ETFs) and index-based mutual funds attempt to mimic index performance. Indexes also serve as benchmarks, or gauges of performance, for actively managed mutual funds and other investments.

However, not all indexes are built the same. Traditionally, equity indexes have been based on market capitalization. For these "market-cap" indexes, stock weights are calculated by multiplying the price of each individual stock by its number of shares outstanding. In other words, the largest companies have the largest weight in the index. Well-known indexes like the S&P 500® Index, Russell 1000® Index and MSCI EAFE® Index use this methodology.

As an investor, it's important to be aware of the biases in how indexes are constructed. With market-cap indexes, the stocks that hold the most weight are those of the companies market participants value most. This implies that the biggest companies are the "best" companies. Some would even say that market-cap indexes overweight the overvalued stocks and underweight the undervalued stocks.

In recent years, we've seen innovation in the way indexes are built. Academics and researchers have essentially been trying to answer the question: Are there other ways to create an index? Among the answers proposed, one idea that has gained traction is fundamentally weighted indexes.

What are fundamentally weighted indexes?

Fundamentally weighted indexes select and weight stocks based on **fundamental factors**—financial metrics that assess some aspect of a company's business or payout to shareholders—such as earnings, sales, or dividends. The rationale here is that these fundamental factors may represent a company's "true" economic value more accurately than the size of the company. Fundamentally weighted indexes are sometimes referred to as **smart beta** because they seek to provide broad market exposure (beta) based on measures of a company's financial health.



By Anthony B. Davidow

CIMA®, Vice President,
Alternative Beta and Asset Allocation
Strategist, Schwab Center for
Financial Research

Key Points

- Many funds track indexes—baskets of stocks that represent the stock market or a portion of it. Traditionally, indexes have been based on "market-cap" or the size of the stocks included.
- But in recent years, we've seen additional ways to build indexes. One idea that has gained traction is fundamentally weighted indexes. These indexes use "fundamental factors"—accounting metrics—to select and weight stocks. The rationale is that these factors may represent a company's "true" economic value more accurately than the size of the company.
- Find out how fundamentally weighted and market-cap indexes compare in terms of weighting, construction, turnover, tax-efficiency, and costs.

What fundamental factors does Schwab use?

There's a wide range of fundamental factors out there, including everything from a company's price-to-earnings ratio to dividends, book value (assets minus liabilities), cash flow, sales, and dividend policy, among others.

However, based on research conducted by our partners at Research Affiliates® and Russell Investments, Schwab Fundamental Index®* ETFs use the following three fundamental factors:

- **Adjusted sales** are the average five-year sales for a company. These sales are called “adjusted” because they exclude the effects of any leverage, or debt, used by the company. Looking at sales gives us insight into the profitability of a business.
- **Retained operating cash flow** is the five-year average of cash generated from company operations. This is the cash left over after paying for expenses and any dividends that can be reinvested in the business. Looking at cash flow gives us an idea of how well the company is being managed.
- **Dividends** are the average dividends paid over the past five years and **buybacks** are the company's repurchase of its own stock in the marketplace during that time. Combined, these two measures are a good indicator of how a company uses its cash.

Same initial pool of stocks

Now, let's turn to how these fundamental factors are used. When creating an index, the first step is to determine which group of stocks to use. Index providers, such as Russell Investments and S&P Dow Jones, create a representative basket of stocks.

Russell, for example, screens thousands of U.S.-based stocks for attributes such as liquidity, share size, and shares outstanding. The resulting 3,000 stocks make up the Russell 3000® Index, the parent index for all of the company's U.S. stock indexes. This parent index is then broken up into sub-indexes based on capitalization size (stocks ranked 1–1,000 are large and mid-caps; 1,001–3,000 are small-caps). At this point, the indexes become more specialized.

And this is where we start to see the differences between market-cap and fundamentally weighted indexes. The stocks included in fundamentally weighted indexes are selected and weighted based on economic factors, not market capitalization.

How are stocks weighted?

Fundamentally weighted indexes follow a rules-based discipline for weighting securities. Some fundamentally weighted index providers weight all the factors equally, using the average of each fundamental factor to compile the list of stocks in the index. Other index providers might assign more or less weight to certain factors.

Regardless of these individual decisions, it's important to remember that the index provider follows a specific set of rules when constructing the index. This is how fundamental strategies differ from actively managed strategies, where the investment manager might follow a similar screening process but also use his or her judgment to tinker with the results.

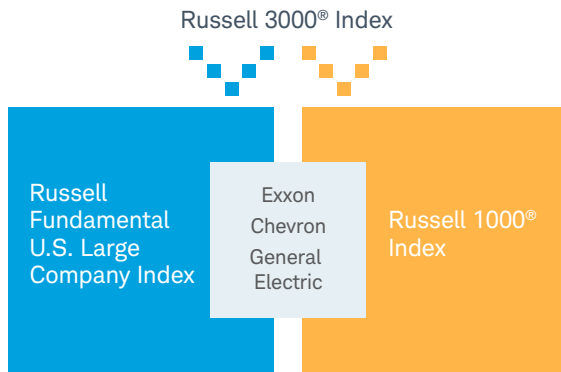
It's also important to note that, because fundamentally weighted indexes select and weight companies by economic factors, these indexes typically have a value tilt. However, they are not value indexes, as they also hold growth and core stocks.

How do fundamentally weighted and market-cap indexes differ?

Step
1

Start with the same stock universe.

The Russell 1000® Index and the Russell Fundamental U.S. Large Company Index are created using the Russell 3000® Index universe. Let's look at 3 sample companies in this universe.



Step
2

Calculate weights.

Fundamental Weighting¹

$$\left[\begin{array}{l} \text{adjusted sales} \\ + \text{retained operating} \\ \text{cash flow} \\ + \text{dividends and} \\ \text{paybacks} \end{array} \right] \div 3 = \text{Company's composite fundamental score}$$

Exxon = 4.83% Chevron = 2.63% General Electric = 1.35%

Exxon has a larger weight in the fundamentally weighted index due to its strong sales, cash flow and dividend payment characteristics.

Chevron is ranked highly in the fundamentally weighted index due to good sales, cash flow and dividend payment characteristics.

General Electric has a similar weight in both the fundamental and the market-cap indexes, but has a higher ranking in the market-cap index.

Market-Cap Weighting

$$\left[\begin{array}{l} \text{outstanding} \\ \text{shares} \\ \times \text{market price} \end{array} \right] \div \text{total market cap of the index} = \text{Weight of each stock}$$

Exxon = 2.15% Chevron = 1.23% General Electric = 1.31%

Step
3

Determine ranks.

Fundamental Rank

Rank the companies from highest to lowest based on their composite fundamental score weight. Drop the companies in the bottom 2% of the rankings.

Market-Cap Rank

Determine rank for each stock. The stock with the largest market-cap is ranked first, followed by the next largest, and so on.

Russell 3000® Index

Russell Fundamental U.S. Large Company Index

Exxon
Chevron
General Electric

Russell 1000® Index

Top 10 Holdings	
Russell Fundamental U.S. Large Company Index	Russell 1000® Index (Traditional Market-Cap Index)
Company	Company
Exxon Mobil Corp.	Apple Inc.
Chevron Corp.	Exxon Mobil Corp.
AT&T Inc.	Microsoft Corp.
ConocoPhillips	Johnson & Johnson
Microsoft Corp.	General Electric Co.
Verizon Communications	Wells Fargo & Co.
Procter & Gamble Co.	Chevron Inc.
Hewlett-Packard Co.	Berkshire Hathaway Inc.
Intel Corp.	JPMorgan Chase & Co.
General Electric Co.	Procter & Gamble Co.

Different index construction = different weights.

As you can see, while many of the stocks in both types of indexes can be the same, their weights can be quite different. This can cause the indexes to perform differently during different market cycles.

At Schwab, we believe an optimal portfolio contains exposure to fundamental strategies, market-cap strategies and active management.

Research Schwab ETFs™ and index mutual funds based on fundamental strategies at:

schwab.com/schwabETFs schwab.com/indexfunds

¹Five-year trailing accounting data is used. The composite fundamental score is divided by 3 because there are 3 fundamental factors and each one is equally weighted.

Source: Schwab Center for Financial Research. Index data from Russell Investments and Research Affiliates as of June 30, 2014. Holdings are subject to change without notice. For illustrative purposes only; this is not a recommendation to buy or sell any particular security.

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Reconstituting and rebalancing the index

Periodically, the stocks in an index are reviewed. There are two main ways that this happens:

- **Reconstitution** is when stocks are added or deleted from an index.
- **Rebalancing** is when the stocks' weights are adjusted in an index.

Fundamentally weighted index providers both reconstitute and rebalance—changing the stocks and their weights over time. Market-cap indexes only reconstitute—or change their stocks. As a result, market-cap indexes let their winners “ride” and may be prone to “boom” and “bust” periods. Mutual funds or exchange-traded funds (ETFs) based on fundamentally weighted indexes may have slightly higher turnover costs due to the addition of rebalancing, which requires buying and selling underlying securities.

How do they stack up?

Here's a side-by-side comparison of fundamentally weighted and market-cap indexes:

Comparing index characteristics

	Fundamental	Market-Cap
Portfolio weighting	Economic factors	Cap weighting
Portfolio construction	Value tilt	Larger-cap tilt
Portfolio turnover	Reconstitution and rebalancing	Reconstitution
Tax efficiency	Typically	Typically
Cost structure	Low cost	Lowest cost

What's the impact of the fundamental factors?

Now that we've discussed how fundamentally weighted indexes work, let's see how this methodology impacts the stocks in the index.

The table to the right shows the top 10 holdings in the Russell 1000® Index and the Russell Fundamental U.S. Large Company Index as of June 30, 2014. While many stocks appear in both, their weights can be quite different.

Take Apple, for example. The stock has the largest weight in the Russell 1000, due to its large market cap, but the 18th-largest weight in the Russell Fundamental U.S. Large Company Index, as of June 30, 2014.

Fundamental Rank

Russell Fundamental U.S. Large Company Index

Weight in Index

Exxon Mobil	#1	▶ 4.83%			
Chevron	#2	▶ 2.63%	2.78%	◀ #1	Apple
AT&T	#3	▶ 2.11%	2.15%	◀ #2	Exxon Mobil
Conoco Phillips	#4	▶ 2.02%	1.71%	◀ #3	Microsoft
Microsoft	#5	▶ 1.97%	1.47%	◀ #4	Johnson & Johnson
Verizon	#6	▶ 1.51%	1.31%	◀ #5	General Electric
Procter & Gamble	#7	▶ 1.37%	1.25%	◀ #6	Wells Fargo
Hewlett-Packard	#8	▶ 1.36%	1.23%	◀ #7	Chevron
Intel Corp.	#9	▶ 1.35%	1.15%	◀ #8	Berkshire Hathaway
General Electric	#10	▶ 1.35%	1.08%	◀ #9	JPMorgan Chase
			1.06%	◀ #10	Procter & Gamble

Market-Cap Rank

Russell 1000® Index

Apple was the darling of Wall Street for several years. When Apple's stock price was rising, indexes that had a large exposure to the stock benefited. Conversely, when Apple's stock price dropped, any index with significant exposure felt the pain of the decline. Some refer to this as the “Apple Effect”—where a single stock can have a dramatic impact on a market-cap index. This effect occurs because market-cap indexes are directly tied to price movements of the underlying stocks.

Bottom line

Fundamentally weighted indexes break the link with price. Selecting and weighting securities based on economic factors leads to different index construction and performance results.

Important Disclosures

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Some specialized exchange-traded funds can be subject to additional market risks. Investment returns will fluctuate and are subject to market volatility, so that an investor's shares, when redeemed or sold, may be worth more or less than their original cost. Unlike mutual funds, shares of ETFs are bought and sold at market price, which may be higher or lower than the net asset value (NAV).

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The S&P 500 Index is a market-capitalization weighted index that consists of 500 widely traded stocks chosen for market size, liquidity and industry group representation.

The Russell 1000 Index measures the performance of the large-cap segment of the U.S. equity universe. It is a subset of the Russell 3000® Index and includes approximately 1000 of the largest securities based on a combination of their market cap and current index membership.

The Russell Fundamental US Large Company Index ranks companies in the Russell 3000 Index by fundamental measures of size and tracks the performance of those companies whose fundamental scores are in the top 87.5% of the Russell 3000 Index. The index uses a partial quarterly reconstitution methodology in which the index is split into four equal segments at the annual reconstitution and each segment is then rebalanced on a rolling quarterly basis. Performance includes reinvestment of dividends.

Indexes are unmanaged, do not incur management fees, costs and expenses, and cannot be invested in directly.

MSCI EAFE® Index (Europe, Australasia, Far East) is a free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the United States and Canada.

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