Practice Essentials® Canada

WHAT MAKES INDICES TICK?

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Indices are built for different purposes. Some provide investors with exposure to specific markets like equities or commodities. Others focus on a particular performance trait that companies have, such as issuing dividends. Whether it's an index-linked mutual fund, closed-end fund or exchange-traded fund (ETF), indices are the moving parts that make the investment product work.

Indices can be broken down in two different ways: by weighting and by security selection.[1] Understanding the different types of indices available and how securities are selected and allocated allows investors to choose an index-based investment that better matches their goals.

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How Securities Are Weighted

Securities can be weighted within an index using three approaches: market capitalization (market cap), equal weight and factor weight.

Market Cap

When most people talk about how "the markets" are doing on a given day, they are often referring to a large-cap index such as the S&P/TSX 60 in Canada. Both are market cap-weighted indices that serve as proxies to track the performance of the broader markets.

A firm's market cap represents the company's overall value. It's calculated by multiplying the number of company-issued shares by the current market price of one share. The index's value is the total of its constituents' market caps. In Canada, the S&P/TSX 60 comprises 60 large-cap stocks that cover nearly two-thirds of the country's equity market cap.

Most market cap-weighted indices today are free-float market cap-weighted, which means they only include shares that are readily available for trading in the market. They generally exclude locked-in shares such as promoters' holding, government holding and strategic holding shares that cannot be traded by the general public.

Market cap-weighted indices are the most widely used measure of the broader market's value. They are considered to more accurately reflect market trends because they track the value of shares available to all investors. This insight enables investors to make "apples to apples" comparisons between the performance of an active manager and a comparable ETF.

While no one framework exists for defining indices by market capitalization, Exhibit 1 provides a general outline for Canada.

[1] Rick Ferri, The ETF Book, (Hoboken, New Jersey: John Wiley & Sons, Inc, 2008), pg. 97.

Exhibit 1: Market Capitalization Breakdown: Canada			
Market Cap	Size (CAD billion)	S&P Index size (CAD billion)	S&P Index
Mega-Cap	-	11.0 - 74.8	S&P/TSX MegaCap
Large-Cap	> 5.0	2.3 - 74.8	S&P/TSX 60
Mid-Cap	1.0 - 5.0	0.004 - 19.4	S&P/TSX Completion
Small-Cap	< 1.5	0.003 - 1.6	S&P/TSX SmallCap
Micro-Cap	-	< 0.7	S&P/TSX Venture Composite

Source: S&P Indices and Cawfield, Diana, "A cap-size view of Canadian equities," Advisor.ca, October 12, 2010. Information as of December 30, 2011.

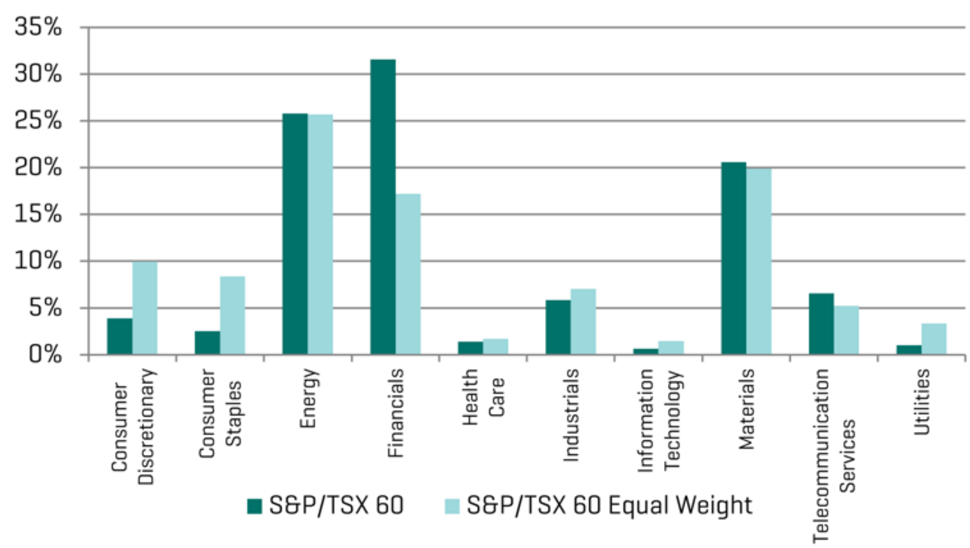
Equal Weight

Equally weighted indices have the same holdings or constituents as indices weighted by market cap, but the playing field is leveled by providing equal exposure to each constituent, regardless of size. Equally weighted indices provide different sector exposures and risk-return profiles compared with the broad market index on which they are based (see Exhibit 3 below).

Equal weight levels the playing field by providing equal exposure to each constituent in an index, regardless of size.

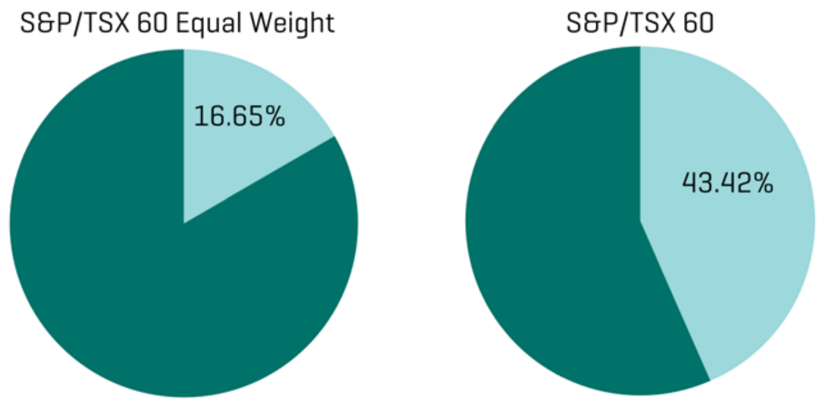
Why would an investor consider equal weight? A weighting strategy based on market cap tends to create portfolios that have a few very large securities combined with relatively numerous smaller ones. As the share prices of larger companies rise, so does their dominance within the index. In comparison, by assigning a fixed allocation to each security, an equal weight strategy will naturally underallocate to those few large-cap securities and overallocate to the relatively smaller securities. This strategy may lessen the index's concentration on specific securities.

Exhibit 3: Sector Breakdown of the S&P/TSX 60 Equal Weight versus the S&P/TSX 60



Source: S&P Indices. Data as of December 30, 2011. Provided for illustrative purposes.

Exhibit 4: Top 10 Constituent Concentration of the S&P/TSX 60 Equal Weight versus the S&P/TSX 60



Source: S&P Indices. S&P/TSX 60 Equal Weight Index constituents are rebalanced after market close on the 3rd Friday of each quarter. Weights will change as stock prices move throughout the quarter. Data as of December 30, 2011. Charts and tables are provided for illustrative purposes.

Sector weights rise and fall more slowly in equally weighted indices than in indices weighted by market cap.

Equally weighted indices can also provide sector diversification. Particularly in Canada, the number of sectors represented in the broad market tends to be highly concentrated. As of December 30, 2011 the concentration of each of the three predominant sectors in the S&P/TSX 60—financials, energy and materials—was 31.60%, 25.79% and 20.59%, respectively. These concentrations provide investors with the true make-up of the Canadian large-cap market, but equal weighting provides investors with greater diversification among sectors.

Sector weights also rise and fall more slowly in equally weighted indices than in indices weighted by market cap, which may help investors avoid extreme run-ups or sell-offs in certain sectors. The sector weights of the S&P/TSX 60 will vary both on the number of stocks in each sector in the index as well as the performance of each sector over time. The sector weights in the S&P/TSX 60 Equal Weight Index will only vary due to the number of stocks in each sector. Therefore, when a certain sector underperforms or outperforms the market by a large percentage, the sector weights of the S&P/TSX 60 will adjust relatively quickly. Those for the S&P/TSX 60 Equal Weight Index will not adjust as quickly because the index is rebalanced to equal weighting once a quarter.

Factor Weight

Factor-weighted indices include constituents that fit into a specific profile, such as firms with a history of paying dividends or companies that meet certain price-to-earnings or price-to-book values. Targeting firms by these factors may allow investors to gain exposure to companies that exhibit value or growth characteristics.

Factor-weighted indices' focus on certain characteristics means they will naturally have different risk-return profiles and sector concentrations compared with market cap or equally weighted indices. Consider the S&P/TSX Canadian Dividend Aristocrats, which comprises firms within the S&P Canada Broad Market Index (BMI) that have consistently increased ordinary cash dividends every year for at least five consecutive years. It has only 58 constituents and the top 10 holdings account for 33.55% of the index's weight (see Exhibit 5 on the following page).

Exhibit 5: S&P/TSX Canadian Dividend Aristocrats	
Number of Constituents	58
Adjusted market cap (CAD billion)	10.22
Constituent market cap (adjusted CAD billion)	
Average	0.18
Largest	0.48
Smallest	0.04
Median	0.14
Weight of largest constituent (%)	4.70
Top 10 holdings (% market cap share)	33.55

Source: S&P Indices. Data as of December 30, 2011. Charts and tables are provided for illustrative purposes.

Factor-weighted indices include constituents that fit into a specific profile, which may allow investors to gain exposure to companies that exhibit value or growth characteristics.

The largest firms that elect to pay dividends may be concentrated in different sectors than those of the top firms in the BMI (see Exhibit 6 below). This may result in more or less sector concentration, depending on the market. As of December 30, 2011, the S&P/TSX Dividend Aristocrats had wider sector exposure among its top 10 constituents, including consumer discretionary, industrials and utilities firms. The S&P/TSX Composite, on the other hand, represented the dominance of financial, energy and materials companies in the Canadian market.

Exhibit 6: Top 10 Companies By Weight: S&P/TSX Canadian Dividend Aristocrats versus the S&P TSX Composite

S&P/TSX Canadian Dividend Aristocrats			S&P/TSX Composite		
Company	Index Weight	GICS Sector	Company	Index Weight	GICS Sector
Atlantic Power Corporation	4.70%	Utilities	Royal Bank of Canada	5.26%	Financials
Ag Growth International Inc.	4.43%	Industrials	Toronto-Dominion Bank	4.84%	Financials
Exchange Income Corporation	3.82%	Industrials	Bank of Nova Scotia Halifax	3.89%	Financials
AGF Management Ltd B Nvtg	3.70%	Financials	Suncor Energy Inc.	3.25%	Energy
Enbridge Income Fund Holdings Inc.	3.46%	Energy	Barrick Gold Corp	3.24%	Materials
Bird Construction Inc.	2.83%	Industrials	Canadian Natural Resources	2.93%	Energy
Transcontinental A Subvtg	2.71%	Industrials	Goldcorp Inc	2.57%	Materials
Northern Property REIT	2.66%	Financials	Potash Corp. of Saskatchewan	2.53%	Materials
Reitmans Canada Ltd. A	2.64%	Consumer Discretionary	Bank of Montreal	2.51%	Financials
Corus Entertainment Inc. B Nvtg	2.60%	Consumer Discretionary	Canadian National Railways	2.51%	Industrials

Source: S&P Indices. Data as of December 30, 2011. Charts and tables are provided for illustrative purposes.

How Securities Are Selected

Index providers choose securities using three different methods: passive selection, screened selection and quantitative selection.[2]

Passive Selection

This method seeks to replicate the broad market or a sector by holding a basket of securities that has the same risk and return characteristics as the market or sector itself. Most passive indices have a few requirements that outline which securities are added or dropped from the index, including minimum number of shares outstanding, minimum daily trading volume and minimum market capitalization.

Portfolio Impact

Passively selected indices typically have the lowest turnover because they seek the returns of the broad market or a sector. ETFs based on passively selected indices may appeal to investors looking to achieve market returns.

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Screened Selection

This method filters the broader market for constituents that possess one or more factors that the index is intended to track. For example, a screened dividend index may only track securities that have a history of paying increasingly higher dividends over the long term. To create this index, the index provider would first sift through the broader market to find constituents that pay dividends, then narrow the results to those that have consistently paid over the past five years, and finally choose those that have raised their dividend payments over the past three years.

Portfolio Impact

Screened indices may allow for exposure to companies with specific risk and return characteristics within the broader market. Screened indices typically have low turnover and are relatively inexpensive to track and maintain.

Quantitative Selection

Quantitatively selected indices rely on computer models that choose companies based on securities data and prices that are predictive in nature. By isolating those certain characteristics, the model seeks to outperform the market by optimizing the top-performing characteristics into an ideal mix of securities. The models are proprietary and rely on constant optimization. They are not publicly available and typically have higher turnover.

Portfolio Impact

There is a potential for outperformance if the isolated characteristics of the quantitatively selected indices lead to better returns than those of the broad-based market indices. High turnover, however, will increase trading and maintenance costs. The proprietary nature of the models may also reduce transparency within an investor's portfolio.

Summary

Understanding indices and their effect on index-linked products such as ETFs is an important part of selecting investments for a portfolio. Knowing how an index selects and weights its constituents may help an investor more effectively choose an index that provides the exposure, risk and return characteristics that best meet their goals.

Additional Resources

For more information on index investment in Canada, check out "Indexing 101: Three Reasons Why Indexing Works" and "Indexing 101: Through the Looking Glass: Insights into Indexing."

To access additional Thought Leadership publications from S&P Indices, visit www.spindices.com/4solutions.

Appendix: Canadian listed S&P Index linked ETFs

Index Type	S&P Index	Canadian-listed S&P Index-linked ETFs	Tickers
Market Cap			
Large-Cap	S&P/TSX 60	Horizons S&P/TSX 60 Index ETF	HXT CN
		iShares S&P/TSX 60 Index Fund	XIU CN
Mid-Cap	S&P/TSX Completion	iShares S&P/TSX Completion Index Fund	XMD CN
Small-Cap	S&P/TSX SmallCap	iShares S&P/TSX SmallCap Index Fund	XCS CN
Micro-Cap	S&P/TSX Venture Select Index	iShares S&P/TSX Venture Index Fund	XVX CN
Equal Weight			
	S&P/TSX Equal Weight Diversified Banks Index	BMO S&P/TSX Equal Weight Banks Index ETF	ZEB CN
	S&P/TSX Equal Weight Global Base Metals CAD-Hedged Index	BMO S&P/TSX Equal Weight Global Base Metals Hedged to CAD Index ETF	ZMT CN
	S&P/TSX Equal Weight Oil & Gas Index	BMO S&P/TSX Equal Weight Oil & Gas Index ETF	ZEO CN
Factor Weight			
	S&P/TSX Canadian Dividend Aristocrats	Claymore S&P/TSX Canadian Dividend ETF	CDZ CN
	S&P High Yield Dividend Aristocrats CAD Hedged Index	Claymore S&P US Dividend Growers ETF	CUD CN
	S&P/TSX Preferred Share	Claymore S&P/TSX CDN Preferred Share ETF	CPD CN

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