

# Nasdaq Dorsey Wright DALI1 Index Methodology

## Index Description

The Nasdaq Dorsey Wright DALI1 Index is a rules-based, quantitatively enabled index which is designed to catch the long-term trends of both the market and strong asset classes when the overall environment is bullish and supportive of higher prices. It aims to minimize drawdowns during periods when the macro-market environment is transitioning from bullish to bearish, and protects assets during a bearishly configured market. The index consists of liquid exchange-traded funds (“**ETFs**”) and other exchange traded products across various asset classes to gain diversified, risk managed exposure.

## Index Calculation

The Nasdaq Dorsey Wright DALI1 Index is a modified market capitalization weighted index. The value of the Index equals the aggregate value of the Index share weights, also known as the Index Shares, of each of the Index Securities multiplied by each such security’s Last Sale Price<sup>1</sup>, and divided by the divisor of the Index. The divisor serves the purpose of scaling such aggregate value to a lower order of magnitude which is more desirable for reporting purposes. If trading in an Index Security is halted on its primary listing market, the most recent Last Sale Price for that security is used for all index computations until trading on such market resumes. Likewise, the most recent Last Sale Price is used if trading in a security is halted on its primary listing market before the market is open. The Index began on April 24, 2018 at a base value of 1,000.00.

The formula for index value is as follows:

Aggregate Adjusted Market Value/Divisor

The formula for the divisor is as follows:

(Market Value after Adjustments/Market Value before Adjustments) X Divisor before Adjustments

Two versions of the Index are calculated:

- The price return index (Nasdaq: NQDALI) is ordinarily calculated without regard to cash dividends on Index Securities.
- The total return index (Nasdaq: NQDALIT) reinvests cash dividends on the ex-date.

---

<sup>1</sup> For purposes of this document, Last Sale Price refers to the last regular way trade reported on such security’s Index Market. The Index Market is the listing market for which prices are received and used by Nasdaq in the Index calculation and generally will represent the most liquid trading market of the Index Security. If a security does not trade on its Index Market on a given day or the Index Market has not opened for trading, the most recent last sale price from the Index Market (adjusted for corporate actions, if any) is used. For securities where Nasdaq is Index Market, the Last Sale Price may be the Nasdaq Official Closing Price (NOCP) when Nasdaq is closed.

All Indexes reflect extraordinary cash distributions.

The Indexes are calculated and disseminated once per second from 9:30:01 to 17:16:00 Eastern Time (ET) in USD. The closing value of the Indexes may change up until 17:15:00 ET due to corrections to the Last Sale Price of the Index Securities.

### **Eligibility**

Index eligibility is limited to specific security types only. The security types eligible for the Index are exchange-traded funds.

### **Index Evaluation and Rebalance**

The Index will be comprised of the top ranked asset class out of US Equity, International Equity, Fixed Income, and Commodities based on the asset class rankings of the Dynamic Asset Level Investing (D.A.L.I.) tool from Nasdaq Dorsey Wright.

The Index holdings are evaluated on bi-monthly basis. Evaluation periods occur in the second and fourth weeks of the month containing a Friday with the exception of the month of December, wherein the Index holdings are evaluated once, on the second week of the month which contains a Friday. If International Equity is part of the rebalance by either moving in or out of the Index, certain evaluation periods will be skipped and the Index will be reevaluated at the next evaluation period. Schedule I contains the overview matrix of Index Rebalance timing on Asset Class, Asset Models and Underlying Tactical Model rebalances inclusive of the periods which would be skipped due to International Equities. Underlying Asset Class sleeves are only rebalanced back to target weights on the prescribed quarterly schedule outlined in the next paragraph.

If chosen for the Index, the asset class portfolio (sleeve) is rebalanced to its target weights quarterly on the 4th week containing a Friday in January, April, July and October:

- **Domestic Equities:** 35% core holding equally distributed between exposure to a Large Cap Growth ETF and a Small Cap Growth ETF; 65% tactical holding tracking the Dorsey Wright Focus Five Index
- **International Equities:** 35% core holding equally distributed between a Developed Markets ex-US ETF and a Emerging Markets ETF; 65% tactical holding tracking the Dorsey Wright International Focus Five Index
- **Fixed Income:** 65% core holding equally distributed between broad based aggregate bond funds; 35% tactical holding of 4 of the strongest relative strength ETFs from a universe of about 12
- **Commodities:** 100% allocated to a broad commodity ETF

The ETFs within each portfolio sleeve inventory are outlined below in Schedule II. During each quarterly rebalance back to target weights, the core portion of each asset class portfolio is equally distributed between each ETF that it holds.

Additionally, if at any time during the year other than the Evaluation, an Index Security no longer meets the Eligibility Criteria, or is otherwise determined to have become ineligible for continued inclusion in the Index, the security is removed from the Index and is not replaced. Ordinarily, a security will be removed from the Index at its Last Sale Price. If, however, at the time of its removal the Index Security is halted from trading on its primary

listing market and an official closing price cannot readily be determined, the Index Security may, in Nasdaq's discretion, be removed at a zero price. The zero price will be applied to the Index Security after the close of the market but prior to the time the official closing value of the Index is disseminated, which is ordinarily 17:16:00 ET.

### **Index Maintenance**

Index Share changes are not made outside of the periodic rebalances however changes arising from stock dividends and stock splits are made to the Index on the evening prior to the effective date of such corporate action. In the case of certain spin-offs or rights issuances, the price of the Index Security is adjusted.

A special cash dividend announced by the listing exchange, will result in an adjustment to the Last Sale Price of an Index Security prior to market open on the ex-date for the special amount distributed. A special dividend may also be referred to as extra, extraordinary, non-recurring, one-time, unusual, etc.

Ordinarily, whenever there is a change in an Index Security or a change to the price of an Index Security due to spin-offs, rights issuances or special cash dividends as mentioned above, the divisor is adjusted to ensure that there is no discontinuity in the value of the Index which might otherwise be caused by any such change. All changes are announced in advance and are reflected in the Index prior to market open on the Index effective date.

### **Index Rebalancing**

The Index employs a modified market capitalization weighting such that each security's Index market value is rebalanced based on the schedule outlined both above and in the schedules below, in conjunction with the Index Evaluation, to a modified value based on the quantitative investment strategy. Index Shares are calculated by taking each security's weight multiplied by an index value of \$1 trillion and dividing it by the closing price utilizing the closing price on Tuesday after the Asset class review date and go effective after the close of trading that Friday.

Nasdaq may, from time to time, exercise reasonable discretion as it deems appropriate in order to ensure Index integrity.

April 2018

## Schedule I – Index Rebalance Matrix

Asset Class Level	Review Schedule
Standard Frequency of Review	Every 2nd and 4th Friday other than December when it is only 2nd Friday
International Moving In or Out of #1 Asset Class	<p>Review will skip the 2nd Friday in January, April, July and October.</p> <p>Review will skip the 4th Friday in March, June, September and December if the First Trust Nifty Fifty Equal Weight ETF (NFTY) is a component of the Dorsey Wright International Focus Five Index.</p>

Tactical Sleeve Level	Review Schedule
Dorsey Wright Focus Five Index	2nd and 4th week containing a Friday
Dorsey Wright International Focus Five Index	1st and 3rd week containing a Friday
Tactical Fixed Income	Monthly on the 4th week containing a Friday
Rebalance Back to Target Allocations	Quarterly on the 4th week containing a Friday in January, April, July and October

## Schedule II - Asset Portfolio Model Inventory

Ticker	Name	Bucket	Portfolio Sleeve
FTC	First Trust Large Cap Growth AlphaDEX	Large Cap Growth	Domestic Equity
FYC	First Trust Small Cap Growth AlphaDEX	Small Cap Growth	Domestic Equity
FDT	First Trust Developed Markets ex-US AlphaDEX	Developed Markets	International Equity
FEM	First Trust Emerging Markets AlphaDEX	Emerging Markets	International Equity
FTGC	First Trust Global Tactical Commodity Strategy	Commodity	Commodity
AGG	iShares US Aggregate ETF	Core	Fixed Income
BND	Vanguard Total Bond Market ETF	Core	Fixed Income
SCHZ	Schwab US Aggregate Bond ETF	Core	Fixed Income
LQD	iShares iBoxx \$ Investment Grade Corp. Bond ETF	IG Corp	Fixed Income
TIP	iShares Barclays US Treasury Inflation Protected Securities	TIPS	Fixed Income
PFF	iShares S&P U.S. Preferred Stock ETF	Prefs	Fixed Income
HYG	iShares iBoxx \$ High Yield Corporate Bond ETF	High Yield	Fixed Income
EMB	iShares JP Morgan USD Emerging Markets Bond ETF	EM Debt	Fixed Income
MBB	iShares Barclays MBS Fixed-Rate Bond ETF	MBB	Fixed Income
SHY	iShares Barclays 1-3 Year Tres. Bond ETF	Short Treasury	Fixed Income
MUB	iShares National Municipal Bond ETF	Munis	Fixed Income
BKLN	PowerShares Senior Loan Portfolio	Loans	Fixed Income
IEF	iShares Barclays 7-10 Year Tres. Bond ETF	Int. Treasuries	Fixed Income
TLT	iShares Barclays 20+ Year Treasury Bond ETF	Long Treasuries	Fixed Income
CWB	SPDR Bloomberg Barclays Convertible Bond ETF	Converts	Fixed Income

***Note, the Fixed Income Model Inventory will not include ETFs which may be considered 'fund of funds' and investing beyond limitations of 12d1a. Inventory is subject to change.***