

RAFI™ Bonds Index Series

RAFI Bonds US Investment Grade 1-10 Index

RAFI Bonds US High Yield 1-10 Index

RAFI Bonds US High Yield 1-10 CAD Hedged Index

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This document contains the underlying principles and regulations regarding the structure and operation of the RAFI™ Bonds Index Series (the “Index Series”). Research Affiliates™, LLC (“Research Affiliates”), the Index owner and Index publisher, has engaged Solactive AG as the Index calculator for the Index Series. Research Affiliates does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of any Index nor the Index value at any certain point in time nor in any other respect. The Index Series is calculated for Research Affiliates by Solactive AG and Solactive AG strives to the best of its ability to ensure the correctness of the calculation. There is no obligation for Research Affiliates—irrespective of possible obligations to Issuers—to advise third parties, including investors and/or financial intermediaries, of any errors in the Index Series. The publication of the Index Series by Research Affiliates is no recommendation for capital investment and does not contain any assurance or opinion of Research Affiliates regarding a possible investment in a financial instrument based on the Index Series.

1. INTRODUCTION

The Index Series utilizes the principles developed by Research Affiliates, LLC, for the creation of securities indices based on measures of company size. These principles are laid out in the article “Fundamental Indexation” by Arnott, Hsu, and Moore (*Financial Analysts Journal*, 2005). The Index Series uses fundamental measures of company size, including book value of assets, gross sales, gross dividends, and cash flow, to create RAFI weights rather than market weights for each Issuer.

The Index Series offers exposure to US investment-grade corporate bonds via the RAFI Bonds US Investment Grade 1-10 Index, and US high-yield bonds via the RAFI Bonds US High Yield 1-10 Index, through an innovative and transparent construction approach whose salient features are described here.

The RAFI Bonds US High Yield 1-10 CAD Hedged Index is also available and offers exposure to US high-yield bonds with 100% hedge against changes in the US dollar/Canadian dollar exchange rate.

2. RAFI WEIGHTS

The RAFI Bonds indices begin with the aggregation of historical accounting data for all US-based publicly traded corporations. Note that this process inherently results in a portfolio that will not invest in debt issued by privately held entities.

Four factors are utilized. For three of them—gross sales, gross dividends, and cash flow—five-year averages are calculated for each company. If a firm does not have a complete five-year history for sales, cash flow, or dividends, the remaining available data is used to calculate an average. The current book value of assets is the fourth variable.

Each corporation receives factor-specific RAFI Scores equal to the ratio of its sales (or cash flow, dividends, book value of assets) to the aggregate sales (or cash flow, dividends, book value of assets) across all companies in the sample. If a company does not pay any dividends, its score is computed as an equally weighted average of the remaining three metrics. Companies with negative scores are removed from consideration.

Note that the amount or type of debt issued by the corporations is not factored into the RAFI Score. Therefore, the resulting universe will include many companies that do not issue any debt of any kind. These companies will be filtered out when the Index is constructed.

3. INDEX METHODOLOGY

3.1 Composition

The RAFI Bonds indices are comprised of US dollar-denominated bonds which are SEC-registered securities, Section 3(a)(2), or SEC Rule 144A securities with Registration Rights (issued after 7/31/2013), and who are US domiciled. Only non-convertible, non-exchangeable, non-zero, fixed coupon corporate bonds qualify for inclusion in the indices. No foreign agencies, governments, municipal bonds, or supra-nationals are allowed. Non-US Issuers are not eligible for the Index Series.

3.1.1 Bonds Trading Flat of Accrued

Bonds trading flat of accrued are not eligible for the Index. If a bond trades flat of accrued during the month, it is removed from the Index at month-end.

3.1.2 Liquidity

RAFI Bonds US Investment Grade 1-10 Index: Each issue must have a minimum par value amount of \$500 million outstanding as on Selection Day. Bonds that have a par value reduced below \$500 million during the month are removed from the Index at month-end.

RAFI Bonds US High Yield 1-10 Index: Each issue must have a minimum par value amount of \$350 million outstanding as on Selection Day. Bonds that have a par value reduced below \$350 million during the month are removed from the Index at month-end.

3.1.3 Rating

RAFI Bonds US Investment Grade 1-10 Index: Each issue must be rated BBB/Baa and higher by both Moody's and S&P as on Selection Day. Split-rated bonds are ineligible if either rating is below BBB/Baa. Bonds that are downgraded below BBB/Baa during the month are removed from the Index at month-end.

RAFI Bonds US High Yield 1-10 Index: Each issue must be rated Ba1/BB+ or lower by either Moody's or S&P, but not below B3/B- by either Moody's or S&P as on Selection Day. Bonds which fall outside this range due to intra-month upgrades or downgrades are removed from the Index at month-end.

3.1.4 Call Protection

All issues must have a minimum two-year call protection when entering the Index. Poison puts and make-whole provisions are allowed.

3.1.5 Minimum Tenor

On entering the Index the minimum tenor is six years for the 5–10 year maturity cell and two years for the 1–5 year maturity cell. An issue will be removed from the Index at the last month end before maturity or an announced Call or Tender Offer.

3.1.6 Maturity Cells

The RAFI Bonds indices are divided into two distinct maturity cells for each Issuer: 1–5 years and 5–10 years. Bonds with a maturity of up to 10.5 years, but not lower than 5 years, are eligible for the 5–10 year maturity cell. Bonds with less than 5 years to maturity are eligible for the 1–5 maturity cell. Where an existing investment in any maturity cell has been held for a period of 12 months (from the Purchase Date) or longer, the largest qualifying issue per maturity cell per Issuer is selected; otherwise, the existing holding is retained subject to the requirements related to bonds trading flat of accrued, liquidity, rating, and call protection. If there is more than one issue with the same Amount Outstanding, then the most recent issue is selected. If Amount Outstanding and Issue Date are the same, then the bond with the longer call protection is selected. As a result, each index will have up to two bonds per Issuer selected.

3.1.7 Purchase Date

The Purchase Date is the date used for confirming the 12 months holding period requirement. The Purchase Date of a bond is defined as the effective date when the bond entered the Index for the first time.

In case of a bond exchange corporate action, the new bond inherits the Purchase Date of the previous bond.

3.1.8 RAFI Weights

Eligible issues that possess a positive company RAFI Score will constitute the Index Series. The issues are weighted by a function that is proportional to the company's RAFI Score on Weighting Day. The function uses accrued interest and prices as on Selection Day. Where a company possesses more than one issue, each issue will be equally weighted.

3.1.9 M&A and Ticker Changes

If an eligible company with a RAFI Score acquires a company without a RAFI Score, the bonds of both companies will be reviewed together upon the ticker change of the second company.

If a company with a RAFI Score is acquired by a company without a RAFI Score, the company becomes ineligible for selection in the indices.

In the event of a merger, RAFI Scores will not be additive. However, if the resulting company and ticker is associated with an existing RAFI Score, bonds will be eligible for selection.

If an eligible company changes its name, and therefore ticker, it remains eligible for the indices under the new ticker.

3.1.10 SEC Registration or Section 3(a)(2) Exemption

If the information on the registration status of a bond is not available in any data sources and bond prospectus cannot be found, it is assumed that the bond is neither SEC registered nor falls under Section 3(a)(2) exemption.

3.2 Reconstitution and Rebalancing

Index portfolios are rebalanced after COB on the last Business Day of the month for index rules and reconstituted annually after COB on the last Business Day of March for new RAFI Scores. New issues may enter at month-end due to index rules. Issues may also leave at month-end due to index rules. Issues may leave intra-month due to unexpected Corporate Actions (Calls, Tenders, Funge). No issue shorter than two years to maturity can enter the Index.

3.2.1 Selection, Announcement, and Rebalance Days

Selection Day: The day the new composition of the Index is selected is six Business Days prior to the Rebalance Day. Business Days are in accordance with the NYSE, therefore if the NYSE is closed for one or more days between Selection Day and Rebalance Day, the Selection Day will be shifted by the appropriate days in order to retain six Business Days between Selection Day and Rebalance Day.

Announcement Day: When the new rebalanced composition is announced, Selection Day + three Business Days.

Rebalance Day: The last Business Day of the month. The rebalance is effective after the close of the Rebalance Day.

3.2.2 Tender Offers and Calls

Tendered bonds will be removed from the Index intra-month if more than 90% of the current Amount Outstanding is tendered (the adjustment date is the first date the information becomes available). Subject to confirmation, a partial Call or Tender Offer that is announced during the month will be treated as a transaction at month-end. Section 4, Corporate Action Events, contains further details.

3.2.3 Issue Introduced into Currently Populated Maturity Cell

If a qualifying issue in either maturity cell is more than 20% larger than the held issue in that same cell, the larger issue will replace the held issue at month-end provided that the issue being removed has been in the Index for a minimum of a 12-month holding period. The new issue will receive the same weight as the issue it replaced.

3.2.4 Removal of One of Two Issues and Introduction of Second Issue

If a company begins a month with one issue in the Index, and a new qualifying issue is introduced into the other maturity cell during the month, then the company's total portfolio weight will be divided equally between the two issues at the end of the month of issue, keeping the company's overall weight constant. Similarly, if a company begins a month with an issue in each of the maturity cells, and one of the two is removed at month-end, then the weight of the remaining issue increases at month-end, keeping the company's overall weight constant.

3.2.5 Intra-Year Additions

Companies that are assigned RAFI portfolio weights but do not have qualifying issues at rebalancing, and that subsequently issue qualifying bonds before the next rebalancing, are added at the end of the month of issue at their previous rebalancing weight. The weights of all existing issues across the Index are reduced pro-rata in conjunction with any intra-year additions.

3.2.6 Issue Moving Between Maturity Cells

If an issue moves between maturity cells (as its tenor decreases) during a month, resulting in two issues within a cell, the longer call-protected tenor is retained at month-end unless the alternative issue is more than 20% larger subject to the requirements related to bonds trading flat of accrued, liquidity, rating, and call protection. This rule supersedes the minimum 12-month holding period.

3.3 Index Calculations

3.3.1 Pricing

The RAFI Bond Indices are calculated based on the Last Evaluated Mid Price of the respective index components.

3.3.2 Accrued Interest

The following day count conversions are based on SIA standards:

Actual days of accrued interest / 360

ISMA / 30/360

Settlement Convention for accrued interest is $t + 0$.

3.3.3 Index Formula

The RAFI Bonds indices are calculated in Total Return format with coupon and other cash payments being reinvested on a monthly basis. The Total Return Index calculation is performed according to the standard rules:

$$Index_t = Index_n \times \frac{MarketValue_t + Cash_t}{BaseValue_n}$$

where:

$$BaseValue_n = \sum_{i=1}^a (Price_{i,n} + AI_{i,n} + CAP_{i,n} + CPAdj_{i,n}) \times SinkingFactor_{i,n} \times Amt_{i,SD} \times CF_{i,SD} \\ \times FX_{i,n} \times IR_{i,n}$$

$$MarketValue_t = \sum_{i=1}^a (Price_{i,t} + AI_{i,t} + CAP_{i,t} + CPAdj_{i,t}) \times SinkingFactor_{i,t} \times Amt_{i,SD} \times CF_{i,SD} \\ \times FX_{i,t} \times IR_{i,t}$$

$$Cash_t = CashCoupon_t + CashSink_t + CashCA_t$$

$$CashCoupon_t = \sum_{i=1}^a CashCoupon_{i,t-1} \\ + \sum_{i=1}^a Coupon_{i,t} \times SinkingFactor_{i,t-1} \times Amt_{i,SD} \times CF_{i,SD} \times FX_{i,t} \times IR_{i,t}$$

$$CashSink_t = \sum_{i=1}^a CashSink_{i,t-1} + \sum_{i=1}^a SinkPayment_{i,t} \times Amt_{i,SD} \times CF_{i,SD} \times FX_{i,t} \times IR_{i,t}$$

$$CashCA_t = \sum_{i=1}^a CashCA_{i,t-1} \\ + \sum_{i=1}^a (RedemptionPrice_{i,t} + AI_{i,t} + CAP_{i,t} \\ + CPAdj_{i,t}) \times SinkingFactor_{i,t-1} \times Amt_{i,SD} \times CF_{i,SD} \times FX_{i,t} \times IR_{i,t}$$

<i>a</i>	Number of bonds in the Index
<i>AI_{i,t}</i>	Interest accrued of bond <i>i</i> on Business Day <i>t</i>
<i>Amt_{i,t}</i>	Amount Outstanding of bond <i>i</i> on Business Day <i>t</i>
<i>BaseValue_n</i>	Base Market Value of the Index as of Rebalance Day <i>n</i>
<i>CAP_{i,t}</i>	Capitalization Rate of bond <i>i</i> on Business Day <i>t</i> (only relevant for Capitalizing Bonds, otherwise the default value is zero)
<i>CF_{i,SD}</i>	Capping factor of bond <i>i</i> on Selection Day : Fixed on the immediately preceding Selection Day and defined as a parameter used to scale the weight of the bond
<i>CPAdj_{i,t}</i>	Variable Coupon Adjustment Factor of bond <i>i</i> on Business Day <i>t</i> :

	If the bond is included in the Index during the Ex-Dividend Period, the factor is zero; if the bond is a constituent of the Index during the Ex-Dividend Period, the Variable Coupon Adjustment Factor equals to the coupon value that will be paid on the next coupon date (only relevant for bonds with Ex-Dividend Period, otherwise default value is zero)
<i>CashCA_t</i>	Aggregated cash consisting of all repayments resulting from Corporate Actions effective up to and including Business Day <i>t</i>
<i>CashCoupon_t</i>	Aggregated cash consisting of all coupon payments made by the Index Components up to and including Business Day <i>t</i>
<i>CashSink_t</i>	Aggregated cash consisting of all early repayments of all Sinkable Bonds up to and including Business Day <i>t</i>
<i>Cash_t</i>	Aggregated cash consisting of all payments made by the Index Components up to and including Business Day <i>t</i> . In relation to Price Return Indices the term <i>Cash</i> includes cash derived from payments resulting from Corporate Actions and early repayments of Sinkable Bonds, while Total Return Indices reflect coupon payments in addition to that. On the immediately following Rebalance Day, <i>Cash</i> is reinvested into the Index and the value is set to zero
<i>Cash_{i,t}</i>	Cash consisting of all payments made by bond <i>i</i> on Business Day <i>t</i> . On the immediately following Business Day, <i>Cash</i> is reinvested into the Index and the value is set to zero
<i>Coupon_{i,t}</i>	Coupon value of bond <i>i</i> on Business Day <i>t</i>
<i>FX_{i,t}</i>	Exchange rate of bond <i>i</i> currency against the Index Currency on Business Day <i>t</i>
<i>IR_{i,t}</i>	Inflation ratio of bond <i>i</i> on Business Day <i>t</i> (only relevant for Inflation-Linked Bonds, otherwise the default value is one)
<i>Index_t</i>	Index Level on Business Day <i>t</i>
<i>MarketValue_t</i>	Market Value of Index on Business Day <i>t</i>
<i>n</i>	Last Rebalance Day
<i>PriceReturn_{i,t}</i>	Price Return of bond <i>i</i> on Business Day <i>t</i>
<i>Price_{i,t}</i>	Clean Price of bond <i>i</i> on Business Day <i>t</i>
<i>RedemptionPrice_{i,t}</i>	Price at which bond <i>i</i> is redeemed as a result of a Corporate Action effective on Business Day <i>t</i>

<i>SD</i>	Last Selection Day
<i>SinkPayment_t</i>	Value of the early repayment of Sinkable Bond <i>i</i> on Business Day <i>t</i> . The Sink Payment is calculated as: $Sink\ Payment_{i,t} = (SinkingFactor_{i,t-1} - SinkingFactor_{i,t}) \cdot Price_{i,t}$
<i>SinkingFactor_{i,t}</i>	Sinking Fund Factor of bond <i>i</i> on Business Day <i>t</i> (only relevant for Sinkable Bonds, otherwise default value is one)
<i>t</i>	Business Day which is between two regular Rebalance Days
<i>TotalReturn_{i,t}</i>	Total Return of bond <i>i</i> on Business Day <i>t</i>
<i>Weight_{i,t}</i>	Weight of bond <i>i</i> on Business Day <i>t</i>

3.3.4 Currency Hedging

The CAD Hedged Index is designed to earn the returns of the RAFI High Yield Bond Index while shielding Canadian investors from changes in the CAD/USD exchange rate. Foreign exchange forward contracts are sold to eliminate the risk of US currency fluctuations versus the Canadian dollar. Profits and losses from the forward contracts offset losses and profits in the value of the currency, thereby negating Canadian investors. A complete description of the hedging methodology can be found here: <https://www.solactive.com/wp-content/uploads/2018/01/Currency-Hedge-General-Methodology.pdf>.

4. CORPORATE ACTION EVENTS

4.1 Corporate Action Definitions and Treatment

This section outlines treatment of corporate events that may result in changes in an index between two regular adjustment days. Corporate Actions are treated on the day when the information on the Corporate Action outcome becomes available. Corporate Actions that occur on weekends or on holidays are postponed until the next workday.

For each Corporate Action below, a brief definition is provided along with the relevant index adjustment specified for every Index Calculation Type and Corporate Action outcome.

4.1.1 Early Redemption: Full Call / Full Tender Definition and Adjustment

A Call option embedded in a bond provides the Issuer with the right to redeem the bond before maturity under certain predetermined conditions. A specific type of this Corporate Action is a Conditional Call which obligates the bond Issuer to substitute the called bond with a non-callable bond exhibiting similar coupon and maturity terms. Make Whole Call is a type of Call that can occur anytime regardless of the bond Call schedule. The price of such Call type is the greater of the par value or a price that corresponds to the specific yield spread over a stated benchmark such as a comparable Treasury security (plus accrued interest).

While a Call can be exercised without a bondholders' consent (provided that the bond is callable), a Tender represents an offer made by the Issuer to its bondholders to repurchase all or some of its bonds at a specified price within a certain time period. The second most common type of a Debt Repurchase along with a Tender Offer is a Buyback program (open-market bond repurchases)

initiated by the Issuer. In this case the Issuer engages in buying back its debt at the price available on the bond market (including private trading transactions).

In order to ensure the tradability of the Index, Solactive AG defines an Early Redemption as full if 90% or more of the bond's Amount Outstanding is redeemed in any of the aforementioned Corporate Action types. Any bond redemption resulting in a repurchase lower than 90% is considered to be partial.

Call and tender adjustment: Unscheduled redemptions receive different treatment dependent on:

Type of Early Redemption: Full/Partial

Only full redemptions, as defined by Solactive AG, lead to intra-month index adjustments. Solactive AG defines an Early Redemption as full if 90% or more of the bond's Amount Outstanding is redeemed. Any bond redemption resulting in a repurchase lower than 90% is considered to be partial. Partial Calls and Debt Repurchases have no effect on the Index composition and weights until the next selection. This means that partially called or repurchased bonds may drop from the Index on the next regular Adjustment Day provided that they no longer meet the eligibility criteria on Selection Day due to the Amount Outstanding decrease.

However, if several partial Calls and/or debt repurchases take place within the same month, or if a partial Call or debt repurchase is followed by a full Call or debt repurchase so that the resulting Amount Outstanding of the bond falls below 10% of its initial value at the beginning of the month, the Index is adjusted assuming that the bond's full amount was called/repurchased at the price of the latest Corporate Action. If part of the bond's Amount Outstanding is called and another part is repurchased on the same date but at different prices with the combination of the two events resulting in a full redemption, the full bond amount is called at the weighted average price of the Call and Tender/Buyback Corporate Actions.

Index Calculation: End-of-Month Cash Reinvestment

According to the periodic index methodology, bond redemption proceeds are held as "Cash" from the effective date up to the next regular Adjustment Day when they are proportionally reinvested into the Index. On this date, the period's accumulated cash is set back to zero. The Paid Cash increment of Bond (*i*) resulting from an unscheduled redemption effective on day (*t*) is calculated as follows:

$$Cash_{i,t} = \frac{RedemptionPrice_{i,t} + AI_{i,t} + CAP_{i,t} + CPAdj_{i,t}}{100} \times SinkingFactor_{i,t} \times Amt_{n,t-1} \times CF_{i,SD} \times FX_{i,t}$$

After the redemption, the price of the bond and its accrued interest will be set to zero, implying a zero weight of the bond in the composition. The bond's contribution to the Cash Component will remain in the Index until it is reinvested in the next rebalancing.

$AI_{i,t}$	Interest accrued of Bond i on Trading Day t .
$CAP_{i,t}$	Capitalization Rate of Bond i on Trading Day t (only relevant for Capitalizing Bonds, otherwise the default value is zero).
$Cf_{i,SD}$	Capping Factor: A parameter used to scale the weight of Bond i defined on the last Selection Day SD .
$CPAdj_{i,t}$	Variable Coupon Adjustment Factor of Bond i on Trading Day t . If the bond enters the Index during the Ex-Dividend Period, the factor is zero. If the bond is already in the Index during the Ex-Dividend Period, the Variable Coupon Adjustment Factor equals the coupon amount.
$Cash_{i,t}$	Aggregated cash consisting of all payments made by index members up to and including Trading Day t , which is between two regular Adjustment Days. In Price Return indices, the $Cash$ term includes Cash derived from Corporate Actions and Sink cash, while Total Return indices reflect coupon payments in addition to that. On the next Rebalancing Day, $Cash$ is reinvested into the Index and is set to zero.
$FX_{i,t}$	Exchange Rate of Bond i Currency against the Index Currency on Trading Day t .
$RedemptionPrice_{i,t}$	Price at which Bond i is redeemed due to a Corporate Action effective on Trading Day t .
$SinkingFactor_{i,t}$	Sinking Fund Factor of Bond i on Trading Day t (only relevant for Sinkable Bonds, otherwise default value is one).

When a bond is called intra-month and the Issuer has only one remaining bond outstanding, we aim to hold the Issuer weight constant by doubling the weight of the only remaining bond at months end.

4.1.2 Exchange Offer Definition & Adjustment

A Bond Exchange Offer is a type of a Tender Offer where the Issuer offers its bondholders to exchange their existing bonds for an asset other than cash (the cash exchange is described above as a Tender Offer). Among the assets offered in the exchange there may be other bonds, stocks, warrants, or a combination of these.

Exchange Offer Adjustment: Treatment of Exchange Offers will vary from case to case, dependent on:

Type of the Exchange (Mandatory/Optional, Full/Partial)

Only mandatory Exchange Offers for 90% or more of the bond's Amount Outstanding will result in an adjustment of the Index. Optional and partial offers are not considered to be events that affect the Index membership. For the avoidance of doubt, optionally or partially exchanged bonds can exit the Index on the next regular Adjustment Day provided they no longer meet the eligibility criteria (usually due to the Amount Outstanding decrease).

Asset Type Received as a Compensation

If a full exchange of Bond (i) is to be done into shares, warrants, cash, or a combination of these with other bonds, the bond will be deleted from the Index at the latest available price. The proceeds will be treated as Paid Cash and reinvested into the Index in the same manner as described above for a Call/Tender Corporate Action (in this case, the Redemption Price will equal the bond's latest available price).

If 90% or more of the Amount Outstanding is exchanged for another bond series, the action will be performed in the Index by exchanging the relevant bonds so that the new bond receives the weight of the old exchanged bond as long as the new bond fulfils the selection requirements of the Index. If the new bond characteristics differ from those of the old bond (e.g., coupon value, coupon frequency, coupon/sink schedule, maturity, etc.) the necessary adjustments are made for the bond accrued interest and statistics calculation.

Should the new bond not fulfil these characteristics, the exchanged bond will be removed from the Index at the latest available price.

4.1.3 Distressed Debt Exchange Offer Definition & Adjustment

Distressed Debt Exchange (DDE) is a form of debt exchange when bondholders agree to reduce the principal amount of debt securities in order to obtain higher payment priority in the form of secured debt. When offering the DDE, the company aims to increase its financial stability and liquidity, extend time to maturity of the bonds, and avoid covenant breaching.

Distressed Debt Exchange Offer Adjustment: In cases where more than 90% of the Amount Outstanding is exchanged in a DDE with the new bond having different characteristics (maturity, coupon, or Amount Outstanding) or trading at a substantially different price, the old bond will be redeemed at the latest available price with the proceeds held as “Paid Cash” and reinvested into the Index on the following Adjustment Day.

4.1.4 Bond in Default Definition & Adjustment

A Bond Default occurs when the Issuer fails to meet its coupon payment obligation or repay the principal at maturity within a certain period of time. Generally, after a coupon/principal payment failure takes place, the Issuer is given a period of time (Grace Period) to cure the Default by making the payment. During this period, the bond is considered to be in Technical Default. If not cured within the Grace Period the failure becomes an Event of Default.

Bond in Default Adjustment: If the bond Issuer fails to meet its coupon payment obligation, the bond’s status will be changed to “Flat Trading.” Under Flat Trading, a bond buyer is exempted from the responsibility of paying the interest that has accrued since the last interest payment. When a bond is defined to be “Flat Trading” between two Adjustment Days, the respective accrued interests and coupons will be set to zero. If the Issuer pays the missed interest within the Grace Period, the bond will be reinstated and the accrued interest will be calculated again.

If a bond’s default is confirmed, the bond’s status will be changed to “In Default.” In this case, the bond will remain part of the Index at the price reported by the price source until the next regular index Adjustment Day. In specific cases the Index Committee may specify a different price for the removal of the bond from the Index on the Adjustment Day in order to improve the Index representation of the market (including price of \$0).

4.1.5 Default Outcome Definition & Adjustment

Default Outcome: The repayment of the defaulted debt through cash and/or financial securities. Cash payments are derived from the restructuring process of a defaulted company. There can be several types of Default Outcomes:

- a) **Default Outcome paid with cash.** If the default results in a cash payment, the cash distributions are treated as “Cash” and are reinvested into the Index based on the Index methodology (direct / periodic reinvestment). Specifically, if defaulted bond (i) pays cash on the effective date (t), the respective payment is reflected in the Index Total Return as part of the “Cash.”
- b) **Default Outcome paid with financial instruments.** If a Default Outcome implies financial securities or their combination with cash being offered as a consideration, the bond will be deleted from the Index at the latest available price with the proceeds treated as “Cash” and reinvested into the Index in the same manner as described above for a Call/Tender Corporate Action (where the Redemption Price will be equal to the latest available price).

Default Outcome Adjustment: Treatment of the Default Outcome Corporate Action depends on the compensation received by bondholders.

4.1.6 Funge Definition

A fungible issue (sub-tranche) is an issue that is attached to the existing one (Parent Bond) in terms that it has the same specifications (i.e., coupon value, coupon frequency, maturity, etc.). On the Funge Date the Parent Bond absorbs the Funged issue(s) so that its Amount Outstanding is Amount Outstanding of the Funged bond(s). The Funged issues will then become inactive with an Amount Outstanding of zero.

The Funge treatment depends on the role the Index member plays in the Funge.

Funge Adjustment: Treatment of the bond Funge Corporate Action depends on whether both the Parent Bond and the sub-tranche are part of the same index:

- a) **The Parent Bond and the sub-tranche are both index constituents.** In the case when both securities are index members, the Funged issue will become inactive and reflect an Amount Outstanding of zero, while the parent issue will reflect an increase in the Amount Outstanding within the month. On the next rebalancing date, the inactive bond will be removed from the Index, while the Parent Bond will remain and reflect the latest Amount Outstanding, as long as it fulfils the selection criteria.
- b) **The Parent Bond is an index constituent and the sub-tranche is not.** If the Index member is the parent issue, no adjustment will occur. On the next rebalancing date, the increased Amount Outstanding will be reflected for the issue, as long as it is part of the new selection.
- c) **The Parent Bond is not an index constituent but the sub-tranche is.** If the Funged issue is part of the Index, but the parent is not, the adjustment will be similar to that of an exchange. The index member will be then replaced by the parent issue; however, the Amount Outstanding of the bond will not be adjusted until the next index rebalancing date as long as the parent issue is part of the new selection.

4.1.7 Payment-in-Kind Definition

Payment-in-Kind Bonds pay interest in additional bonds rather than in cash. This implies no interest payments made by the Issuer during the bond terms, with the only cash outflow at maturity when the bond principal is redeemed.

Payment-in-Kind Adjustment: Assuming the additional bonds will be sold immediately and the proceeds will be reinvested in the Index, Payments-in-Kind are therefore considered as regular cash coupon payments in the Cash component in all Total Return calculations.

4.1.8 Debt Issuances

Bonds issued between the Selection Day and Adjustment Day are reviewed in the selection process if they are priced by the Pricing Provider on Selection Day.

New debt issuances of an existing bond will not be considered until the next Adjustment Day, when the new Amount Outstanding of the bond will be considered if the bond is eligible.

4.1.9 Mergers and Acquisitions

If a constituent is acquired, the Issuer drops from the Index and the weight is reinvested across the remaining constituents.

5. APPENDIX

5.1.1 RAFI Bonds Index Information

Index Name	Short Name	Index Ticker	Market Hours	Currency
RAFI Bonds US Investment Grade 1-10 Index	RAFICIG	RAFIIG	US	USD
RAFI Bonds US High Yield 1-10 Index	RAFICHY	RAFIHY	US	USD
RAFI Bonds US High Yield 1-10 CAD Hedged Index	RAFICHYH	RAFIHYCD	US	CAD

5.1.2 Index Calculator

The application by the Index Calculator of the method described in this document is final and binding. The Index Calculator shall apply the method described above for the composition and calculation of the Index. However it cannot be excluded that the market environment, supervisory, legal, financial, or tax reasons may require changes to be made to this method. The Index Calculator may also make changes to the terms and conditions of the Index and the method applied to calculate the Index, which it deems to be necessary and desirable in order to prevent obvious or demonstrable error or to remedy, correct or supplement incorrect terms and conditions. The Index Calculator is not obliged to provide information on any such modifications or changes. Despite the modifications and changes the Index Calculator will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.

5.1.3 Definitions

Amount Outstanding: Face value of the respective bond.

Bond Maturity: An event when the Issuer repays the relevant principal and interest of the bond.

Business Day: Any day other than a Saturday or Sunday and other than holidays of the NYSE.

Buyback: An event when the Issuer redeems its debt by repurchasing bonds in the secondary market.

Call: An option embedded in a bond that provides the Issuer with the right to redeem the bond before maturity under certain predetermined conditions.

Capitalizing Bonds: Bonds that have a percentage of coupon payments converted into capital (principal).

Cash Component: Aggregated cash consisting of all payments made by Index Components.

Clean Price: Price of a bond that does not include any accrued interest.

Conditional Call: A notice of redemption for which the redemption occurs if a specific condition is satisfied. With this Call type, the Issuer retains the right to cancel the redemption.

Convertible Bonds: Bonds that can be converted into equity of the Issuer or an equivalent amount of cash under certain conditions.

Corporate Actions (in relation to bonds): Unscheduled payments, other than standard coupon payments that may include calls, puts, repurchases, exchanges, or consent solicitations.

Default Outcome: The full or partial repayment of the defaulted debt through cash and/or financial instruments.

Dirty Price: Clean Price of a bond plus any accrued interest.

Distressed Debt Exchange Offer: Form of debt exchange when bondholders agree to reduce the principal amount of debt securities in order to obtain higher payment priority in the form of secured debt.

Early Redemption: Any event that leads to a redemption of a bond before the scheduled maturity date.

Effective Day: The first Business Day of the next month.

Event of Default: Occurs if the Issuer fails to make the payment or meet any other obligations (covenants, events of default listed in bond prospectus) within the Grace Period.

Exchange Offer: The holder of a bond is invited to exchange the existing bond to another security and/or cash.

Ex-Dividend Period: Period of time several days in advance of the coupon payment date during which the coupon due on such payment date is detached from the bond.

Fixing Time: Time when the prices are fixed for index calculation. The Fixing Time is 15:00 US Eastern Time.

Flat Trading: Bonds' status if the Issuer fails to meet its coupon payment obligation. In this case accrued interest is set to zero.

Funge: An event when the Parent Bond absorbs the Fungible Bond.

Fungible Bond: A new bond into which the Parent Bond is interchanged. It has all the same specifications as an existing issue (bonds with the same parameters can be issued in different tranches).

Grace Period: Timeframe after missing coupon or principal payment within which the Issuer has the possibility to fulfill its obligation to avoid entering into default. No action resulting from failing to make the payment takes place.

Index Currency: USD.

Index Level: The result of the determination of the Index at the Index Closing.

Issuer: The issuing entity of the respective bond.

Issue Date: The date when a new bond is publicly known to settle.

Last Evaluated Price: The evaluated bid/ask/mid price by the designated Pricing Provider at Fixing Time.

Parent Bond: Bond that is Funged into a new issue in accordance with predefined conditions.

Payment-In-Kind Bonds: Bonds that pay interest in additional bonds rather than in cash.

Payment-In-Kind: An event when Payment-In-Kind Bonds pay interest in form of additional bonds.

Pricing Provider: Interactive Data Corporation (part of the ICE group).

Purchase Date: The date used for confirming the 12 months holding period requirement of the bond. The Purchase Date of a bond is defined as the Effective Day when the bond entered the Index for the first time.

RAFI Scores: Equal to the ratio of its sales (or cash flow, dividends, book value of assets) to the aggregate sales (or cash flow, dividends, book value of assets) across all companies in the sample.

Settlement Convention: Number of days between the date when a trade is settled and the date when the transaction occurs.

Sinkable Bonds: Bonds backed by a fund that sets aside money on a regular basis. A Sinkable Bond Issuer is required to buy a certain amount of the bond back from the purchaser at various points throughout the life of the bond.

Sinking Factor: A rate at which principal of a Sinkable Bond is reduced.

Technical Default: The Issuer failing to make the payment on the due date or meet any other obligations (covenants, events of default).

Tender Offer: A bondholder is invited to tender the bond for a specific price at a specific time before the scheduled maturity date.

Total Return (TR) Index: Measures all the returns generated by the Index Components, including any price movements, coupon income, and redemption payments.

Weighting Day: The next Business Day after the Selection Day.

5.1.4 [Contact Data](#)

For all questions relating to methodology and licensing and access, please contact Research Affiliates at info@rafi.com or call 1-866-695-9900 or 949-325-8700.

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