CANADIAN
FIXED INCOME
FORUM

Review of Fixed-Income Indices

June 27, 2017

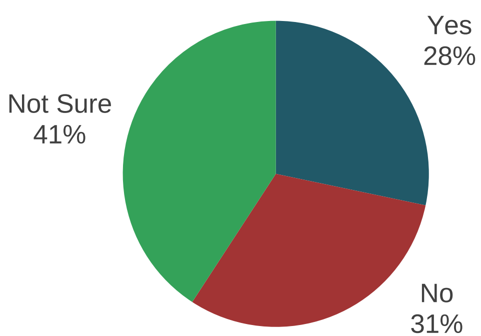
What is an Index?

- An index is a portfolio designed to track the performance of a specific segment of the market
- Used by various types of market participants, it is used as a benchmark to:
  - gauge market developments;
  - establish a universe of bonds from which to invest; and
  - measure individual investment performance

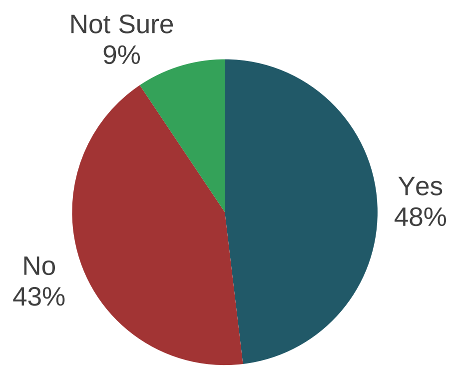
Market Participants’ Impression of Benchmark Indices

- The 2016 CFIF survey illustrates the diverging views market participants hold regarding the influence of major benchmark indices on trading practices

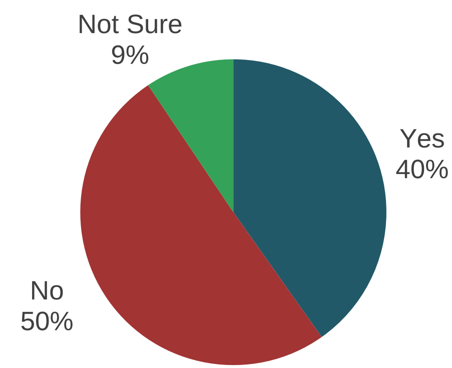
Do you think that the major benchmark indices support fixed income market functioning and price discovery?



Does having a security included (or about to be included) in a major benchmark index influence your willingness to trade it?



Does a security’s price in the benchmark index influence your willingness or ability to trade it?



Source: CFIF Survey

Index Construction

CANADIAN
FIXED-INCOME
FORUM

Guiding Principles for Financial Benchmarks

- In 2013, The Board of the International Organization of Securities Commissions (IOSCO) issued a set of recommended principles for financial benchmark administrators to promote the reliability of benchmark determinations
  - These principles were designed to address benchmark governance, quality, and accountability mechanisms

Principle	Purpose
Governance	To ensure appropriate governance arrangements are in place to protect the integrity of the determination process
Quality of the benchmark	To promote the quality and integrity of benchmark determinations through design factors that result in a benchmark that reflects a credible market
Quality of the Methodology	To promote the quality and integrity of the methodologies used by setting out the minimum amount of information that should be disclosed and published
Accountability	To establish complaints processes, documentation standards and audit reviews to provide evidence of compliance to the principles

Source: FSB

Index Methodology

- A rules-based approach to index construction helps to ensure the transparency, replicability and reliability of benchmark indices, consistent with the IOSCO principles for financial benchmarks
- Two rules and procedures that dictate how a benchmark is constructed are its eligibility criteria and pricing methodology

Eligibility Criteria

- Clearly defined and objective selection criteria help index providers decide and investors predict which issues are eligible for a particular index

Example of Index Eligibility Criteria

Criterion	Example – FTSE TMX Universe Bond Index
Currency	CAD
Market of Issue	Canada
Bond Rating	BBB or higher
Remaining Term to Maturity	At least one year
Coupon Type	Fixed rate coupons, payable semi-annually
Minimum Amount Outstanding	C$100M for corporate bonds, C$50M for government bonds
Exemptions	Does not include floating-rate notes, convertible bonds, CMBS, MBS, other monthly-pay, pre-payable, or inflation-indexed securities, securities specifically targeted to the retail market or securities that are not priced

Source: FTSE

Pricing Sources

- A key component in index construction is finding reliable price data to calculate index returns
- Examples of possible pricing sources include:
  - Transaction pricing
  - Matrix pricing[(1)]
  - Dealer pricing
- Each pricing source has its own pros and cons, which should be evaluated in conjunction with the type of security that is to be priced
  - For example, daily transaction pricing may be difficult to obtain for bonds that trade infrequently and are less liquid

(1) Matrix pricing involves the use of bond pricing models to calculate the theoretical price of a security

Final Index Calculations

- As bond index calculations should ensure that prices reflect the experience of the average holder in the sector, the number of sources used to determine pricing is an important consideration
  - For example, single source pricing may hinder index independence and skew valuations, while multiple source pricing may include pricing data from misinformed data providers
- Therefore, regardless of the pricing source, additional checks and scrub mechanisms are typically used for final price verification
  - Some examples include: the use of historical data to review daily yields, a review of lead dealer pricing, and the elimination of outliers

Topics for Discussion

General

- What are the benefits of having a bond included in a major benchmark index?
  - Does having a bond included in a major benchmark index impact the demand or investor base for that bond?
  - Does this also improve the bond's underlying liquidity?

Pricing

- To what extent should a bond's liquidity be taken into consideration when determining the pricing source?
  - Should there be different pricing methodologies used for liquid and less liquid bonds?
- How should actual transaction data be used for bond pricing?
  - When should actual transaction data not be used?
- Is there an optimal process or approach to review index pricing?