

**S&P International Sovereign
Ex-U.S. Bond Indices
*Methodology***

November 2018

Table of Contents

Introduction	2
Index Objective	2
Index Family	2
Supporting Documents	2
Eligibility Criteria	3
Eligibility Factors	3
Index Construction	5
Index Calculations	5
Index Maintenance	6
Rebalancing	6
Ongoing Maintenance	6
Currency and Currency Hedged Indices	7
Base Dates and History Availability	7
Index Governance	8
Index Committee	8
Index Policy	9
Announcements	9
Holiday Schedule	9
Rebalancing	9
End-of-Day Calculation	9
Recalculation Policy	9
Contact Information	9
Index Dissemination	10
Tickers	10
Index Data	10
Web site	10
Appendix	11
Methodology Changes	11
Disclaimer	12

Introduction

Index Objective

The S&P International Sovereign Ex-U.S. Bond Indices measure the performance of developed-market sovereign debt issued by countries included in the underlying S&P Global Developed Sovereign Ex-U.S. Bond Index. Country weights are capped as detailed in the *Index Weightings* section below.

Index Family

S&P International Sovereign Ex-U.S. Bond Index. The index measures the performance of treasury bonds issued by non-U.S. developed market countries with maturities of at least one year.

S&P International Sovereign Ex-U.S. 1-3 Year Bond Index. The index is a subset of the S&P International Sovereign Ex-U.S. Bond Index and measures the performance of treasury bonds issued by non-U.S. developed market countries with maturities of at least one year, but less than three years.

Supporting Documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

Supporting Document	URL
S&P Dow Jones Indices' Fixed Income Policies & Practices Methodology	Fixed Income Policies & Practices
S&P Dow Jones Indices' Fixed Income Index Mathematics Methodology	Fixed Income Index Mathematics Methodology

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of each index governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the indices continue to achieve their objectives.

Eligibility Criteria

Eligibility Factors

Issuer. To be eligible for index inclusion, the issuing country must be a member of the S&P Global Developed Sovereign Ex-U.S. Bond Index and meet the weight requirements described in *Index Construction*.

For information on the S&P Global Developed Sovereign Ex-U.S. Bond Index, please refer to the S&P Global Bond Indices Methodology available at www.spdji.com.

Pricing. Bid side pricing – Thomson Reuters. Bonds not priced by the designated pricing source are ineligible for index inclusion.

Maturity. Each bond must have a maturity of at least one year from the rebalancing date. For the **S&P International Sovereign Ex-U.S. 1-3 Year Bond Index**, the maturity of each bond must also be less than three years.

Coupon. Only fixed-rate coupon bonds are eligible

Settlement. Bonds issued up to the rebalancing reference date (regardless of the settlement date). Standard index settlement convention is same-day (e.g. T+0), unless otherwise specified. For month-ends that fall on a weekend, the interest accrued during the month is reflected within the calendar month, regardless of settlement convention. For rates that are not available at month-end (e.g. a rate with an unknown reset), the accrual is based on the current rate and adjusted the first business day of the next month.

Exclusions. The following bond types are specifically excluded from the indices:

- Bills
- STRIPS
- Floating-Rate Instruments
- Inflation-Linked
- Sukuk

Minimum Par Outstanding. The minimum par outstanding requirements for each country are outlined in the table below. Government holdings for all applicable counties are excluded for index eligibility purposes.

Market	Minimum Size
Australia	A\$ 1 bn
Austria	€2.5 bn
Belgium	€2.5 bn
Canada	C\$ 2.5 bn
Denmark	DKr 20 bn
Finland	€2.5 bn
France	€2.5 bn
Germany	€2.5 bn
Greece	€2.5 bn
Hong Kong	HKD 300 mn
Ireland	€2.5 bn
Israel	ILS 1 bn

Market	Minimum Size
Italy	€2.5 bn
Japan	¥500 bn for all but 20- and 30-year bonds, which are set at a ¥450 bn minimum (applies only when a bond enters the index).
Luxembourg	€2.5 bn
Netherlands	€2.5 bn
New Zealand	NZ\$ 1 bn
Norway	NOK 20 bn
Portugal	€2.5 bn
Singapore	S\$ 1.5 bn
South Korea	KRW 1 tn
Spain	€2.5 bn
Sweden	SEK 25 bn
Switzerland	SFr 4 bn
UK	£2.0 bn

Index Construction

Index Calculations

The indices are capped market value weighted.

The total return is calculated by aggregating the interest return, reflecting the return due to paid and accrued interest, and price return, reflecting the gains or losses due to changes in end-of-day price and principal repayments.

For further details regarding Index Calculations, please refer to S&P Dow Jones Indices' Fixed Income Index Mathematics Methodology.

Index Weightings

Each month country weights are determined using the following diversification requirements:

1. The country with the largest initial weight is set to the lesser of its initial weight or 23% and is not subject to further adjustments. The excess weight is then redistributed proportionally across all other countries.
2. The largest countries after step 1 are summed until a total weight of 48% is breached. These countries are then reweighted proportionally so that they sum to 25% and any excess weight is redistributed proportionally across all other countries.
3. Any country not accounted for in the steps 1 and 2 above, with weights greater than 4.7%, are capped at 4.7%. This is repeated until the weights of all countries in the index sum up to 100%.

Should any country violate the capping rules as stated above, its index weight is adjusted to conform to the weight rules as defined above. All excess weight is redistributed across the index on a pro-rata basis based on market value.

Index Maintenance

Rebalancing

Annual Reconstitution. On an annual basis countries are reviewed for inclusion in the index. The eligible universe refers to those countries meeting issuer and pricing requirements as defined in *Eligibility Criteria*. Countries currently not represented in the index, but with market weights of at least 50 basis points, are added to the index.¹ Countries currently represented in the index, but with weights less than 10 basis points, are removed.

The schedule of the annual reconstitution is detailed in the table below.

Annual Reconstitution Schedule	
Frequency	Annual
Effective Date	First business day of April (<i>T</i>)
Announcement Date	<i>T</i> – 3
Reference Date	Last business day of January

All days reflect after the close and count business days.

Monthly Rebalancing. In addition to the annual reconstitution, the indices are reviewed and rebalanced on a monthly basis. The Index Committee, nevertheless, reserves the right to make adjustments to an index at any time that it believes appropriate.

Additions, deletions and other changes to the indices arising from the rebalancing are made provided the security's reference information and pricing are available by designated pricing and data providers on the rebalancing reference date. Changes to the indices are published on the announcement date and become effective on the rebalancing date. Information related to the rebalancing is obtained and disseminated after the close of business.

Monthly Rebalancing Schedule	
Rebalancing Frequency	Monthly
Rebalancing Date	Last day of the rebalancing period (<i>T</i>)
Announcement Date	<i>T</i> – 3
Reference Date	<i>T</i> – 4

All days reflect after the close and count business days.

Ongoing Maintenance

The indices are also reviewed on an ongoing basis to account for the following:

- When an index bond is in default or misses an interest payment, the price reported by the pricing source is used. However, the Index Committee may determine that the bond be removed from the index at a different price and may specify a price of 0.00. The decision of the Index Committee is final.
- If an index bond is no longer priced by the pricing source, the last available price is used. However, the Index Committee may determine that a different price be used. The decision of the Index Committee is final. For clarity, index bonds that are no longer priced by the pricing source fail to meet the pricing eligibility factors and are removed at the next rebalancing date. If the bond is priced for at least one of the five business days prior to the rebalancing announcement date, the bond remains in the index. Otherwise, it is removed from the index at the subsequent rebalancing date.

¹ All data is converted to U.S. dollars for purposes of this calculation.

Currency and Currency Hedged Indices

The indices are calculated in their respective local currencies. Certain indices are also available in U.S. dollars or in U.S. dollar hedged versions.

WM/Reuters foreign exchange rates taken at 04:00 PM London time are used in the end-of-day calculation of the indices. These mid-market fixings are calculated by the WM Company based on Reuters' data and appear on Reuters pages WMRA.

Additional currency and currency hedged versions of the indices, as well as maturity, sector and rating-based sub-indices may be available. For a list of available sub-indices and tickers, please refer to S&P Dow Jones Indices' Fixed Income Index Directory available at www.spdji.com.

For more information on currency and currency hedged indices, please refer to S&P Dow Jones Indices' Fixed Income Index Mathematics Methodology.

Base Dates and History Availability

Index history availability, base dates and base values are shown in the tables below.

Index	Launch Date	First Value Date	Base Date	Base Value
S&P International Sovereign Ex-U.S. Bond Index	11/03/2008	03/31/2001	03/31/2001	100
S&P International Sovereign Ex-U.S. 1-3 Year Bond Index	11/03/2008	03/31/2001	03/31/2001	100

Index Governance

Index Committee

S&P Dow Jones Indices' Fixed Income Index Committee maintains the indices. All committee members are full-time professionals at S&P Dow Jones Indices. Meetings are held quarterly and whenever deemed appropriate.

The Index Committee oversees the management of the indices, including determinations of intra-rebalancing changes, maintenance and inclusion policies, and other matters affecting the maintenance and calculation of the indices.

In fulfilling its responsibilities, the Committee has full and complete discretion to (i) amend, apply, or exempt the application of Index rules and policies as circumstances may require and (ii) add, remove, or by-pass any issue in determining the composition of the Index.

The Committee may rely on any information or documentation submitted to it or gathered by it that the Committee believes to be accurate. The Committee reserves the right to reinterpret publicly available information and to make changes to the Index based on a new interpretation of that information at its sole discretion.

S&P Dow Jones Indices' Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices' Fixed Income Policies & Practices document.

Index Policy

Announcements

Announcements of any relevant information pertaining to the indices are made after market close. Press releases are posted on S&P Dow Jones Indices' Web site at www.spdji.com.

Holiday Schedule

The indices are calculated on all business days of the year (Monday through Friday) except December 25th (Christmas Day) and January 1st (New Year's Day).

A complete holiday schedule for the year is available on S&P Dow Jones Indices' Web site at www.spdji.com.

Rebalancing

The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

End-of-Day Calculation

Index levels are calculated at the end of each business day, via S&P Dow Jones Indices' Web site. This may be subject to change.

Recalculation Policy

For information on the recalculation policy please refer to S&P Dow Jones Indices' Fixed Income Policies & Practices document.

For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices' Fixed Income Policies & Practices document.

Contact Information

For questions regarding an index, please contact: index_services@spglobal.com.

Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at www.spdji.com, major quote vendors (see codes below), numerous investment-oriented Web sites, and various print and electronic media.

Tickers

The table below lists headline indices covered by this document. All currency, currency hedged, maturity, sector and rating-based sub-indices as well as return type versions of the below indices that may exist are also covered by this document. Please contact index_services@spglobal.com for a complete list of indices covered by this document.

Index	Bloomberg	Reuters
S&P International Sovereign Ex-U.S. Bond Index	SPBDXUTR	.SPBDXUTR
S&P International Sovereign Ex-U.S. 1-3 Year Bond Index	SPBDXU3T	.SPBDXU3T

Index Data

Daily index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, www.spdji.com/contact-us.

Web site

For further information, please refer to S&P Dow Jones Indices' Web site at www.spdji.com.

Appendix

Methodology Changes

Methodology changes since January 1, 2015 are as follows:

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Country Index Eligibility and Size	06/29/2018	The index includes a set list of countries and sizes.	Eligible countries and minimum sizes are determined by using the S&P Global Developed Sovereign Ex-U.S. Bond Index as the starting universe.
Country Index Weights	06/29/2018	Country index weights are set annually and subject to a diversification cap monthly.	Monthly weights are derived based on market value, subject to the following: <ul style="list-style-type: none"> • No single country's weight can exceed 23.0%. • The aggregate weight of countries with weights greater than 5.0% cannot exceed 48.0%. • Any country that does not satisfy the above constraints is capped at 4.7%.
Cash Reinvestment	06/29/2018	Cash is reinvested at the local currency one-month Eurodollar deposit rate, except for Australia which assumes reinvestment of cash flows at the Australia dollar bank bill swap reference rate.	No cash reinvestment is applied.
Minimum Par Amount Outstanding Required	06/29/2018	<ul style="list-style-type: none"> • Australia: A\$ 750 mn • New Zealand: NZ\$ 750 mn 	<ul style="list-style-type: none"> • Australia: A\$ 1 bn • New Zealand: NZ\$ 1 bn
Index Name	06/29/2018	<ul style="list-style-type: none"> • S&P/Citigroup International Treasury Bond Ex-U.S. Index • S&P/Citigroup International Treasury Bond Ex-U.S. 1-3 Year Index 	<ul style="list-style-type: none"> • S&P International Sovereign Ex-U.S. Bond Index • S&P International Sovereign Ex-U.S. 1-3 Year Bond Index

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