S&P Dow Jones Indices

A Division of S&P Global

S&P Global Bond Futures Index Series *Methodology*

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Introduction

Index Objective and Highlights

The S&P Global Bond Futures Index Series measures the performance of near maturing bond futures contracts traded on global futures exchanges. Each index is denominated in the currency of the underlying futures contract.

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' Commodities Indices Policies & Practices Methodology	Commodities Indices Policies & Practices
S&P Dow Jones Indices' Commodity Index Mathematics Methodology	Commodity 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 index continues to achieve its objective.

Index Construction

S&P Global Bond Futures Index Series

The indices are constructed from the front month futures contract traded on global futures exchanges. The table below lists the contracts, corresponding exchanges, index base dates, and index first value dates.

Index	Underlying Futures Contract	Symbol	Exchange
S&P U.S. Treasury Bond Futures Index	U.S. Treasury Bond Futures	US	CME
S&P 2-Year U.S. Treasury Note Futures Index	2-Year U.S. Treasury Note Futures	TU	CME
S&P 5-Year U.S. Treasury Note Futures Index	5-Year U.S. Treasury Note Futures	FV	CME
S&P 10-Year U.S. Treasury Note Futures Index	10-Year U.S. Treasury Note Futures	TY	CME
S&P Ultra 10-Year U.S. Treasury Note Futures Index	Ultra 10-Year U.S. Treasury Note Futures	TN	CME
S&P Ultra T-Bond Futures Index	Ultra T-Bond Futures	UL	CME
S&P Euro-Schatz Futures Index	Euro-Schatz Futures	FGBS	EUREX
S&P Euro-Bobl Futures Index	Euro-Bobl Futures	FGBM	EUREX
S&P Euro-Bund Futures Index	Euro-Bund Futures	FGBL	EUREX
S&P Euro-Buxl Futures Index	Euro-Buxl Futures	FGBX	EUREX
S&P Euro-OAT Futures Index	Euro-OAT Futures	FOAT	EUREX
S&P Euro-BTP Futures Index	Euro-BTP Futures	FBTP	EUREX
S&P Swiss-CONF Futures Index	Swiss-CONF Futures	CONF	EUREX
S&P Long Gilt Futures Index Index	Long Gilt Futures	FLG	ICE
S&P 10-Year Canada Government Bond Futures Index	10-Year CGB Futures	CGB	MX
S&P 10-Year JGB Futures Index	10-Year JGB Futures	JGB	JPX
S&P/ASX Australian 3-Year Treasury Bond Futures Index	3-Year Australian Treasury Bond Futures	YT	ASX
S&P/ASX Australian 10-Year Treasury Bond Futures Index	10-Year Australian Treasury Bond Futures	XT	ASX
S&P/ASX Australian 20-Year Treasury Bond Futures Index	20-Year Australian Treasury Bond Futures	XX	ASX
S&P/ASX Australian 3-Year Treasury Bond (Dollar Value) Futures Index	3-Year Australian Treasury Bond Futures	YT	ASX
S&P/ASX Australian 10-Year Treasury Bond (Dollar Value) Futures Index	10-Year Australian Treasury Bond Futures	XT	ASX
S&P/ASX Australian 20-Year Treasury Bond (Dollar Value) Futures Index	20-Year Australian Treasury Bond Futures	XX	ASX

Futures Roll

Constructed from futures contracts, each excess and total return index includes provisions for the replacement of the Index Futures Contracts as it approaches maturity (also referred to as "rolling").

- (1) For all the U.S. Treasury Futures and Ultra T-Bond contracts, this replacement occurs over a one-day rolling period every quarter, effective prior to open of trading one business day preceding the First Position Date as published by the CME Group. For more information pertaining to the product calendar, please refer to the CME Group web site at http://www.cmegroup.com/trading/interest-rates/us-treasury/30-year-us-treasurybond_product_calendar_futures.html.
- (2) For the Euro and Swiss Futures, the contract switch will occur over a one-day roll effective prior to open of trading three business days preceding the contract expiration date. For more information pertaining to the product calendar, please refer to the EUREX Web site at https://www.eurexchange.com/exchange-en/trading/trading-calendar.
- (3) For the Long Gilt Futures, the contract switch will occur over a one-day roll effective prior to open of trading three business days preceding the First Notice Day. For more information pertaining to the product calendar, please refer to the ICE web site at https://www.theice.com/holiday-hours.

- (4) For the 10-Year Canada Government Bond Futures, the contract switch will occur over a one-day roll effective prior to open of trading three business days preceding the First Notice Day. For more information pertaining to the product calendar, please refer to the Montreal Exchange web site at https://www.m-x.ca/en/trading/data/trading-calendar.
- (5) For the JGB Futures, the roll date is effective prior to open of trading two business days preceding the last trading day of the futures contract. The last trading day for JGB futures is seven business days prior to the contract settlement day. Please refer to the JPX web site for their product calendar. http://www.jpx.co.jp/english/derivatives/products/jgb/jgb-futures/index.html.
- (6) For the Australian Bond Futures, the roll date is effective prior to open of trading two business days preceding the last trading day of the futures contract. Please refer to the ASX web site for product and holiday calendar, https://www2.asx.com.au/markets/market-resources/trading-hours-calendar.

For more information on the S&P Global Bond Futures Indices, please refer to the Web site at www.spglobal.com/spdji/.

Market Disruptions during the Roll Period

For more information on Market Disruptions during the Roll Period, please refer to the Index Policy Section of the S&P DJI Commodities Policies & Practices Methodology.

Excess Return Index Calculation

The excess return of each of the indices is calculated from the price change of the underlying future's contract. For information on the calculation of the Excess Return index levels, please refer to the Price Weighted Indices section of the S&P Dow Jones Indices' Commodity Index Mathematics Methodology.

For the S&P/ASX Australian 3-Year, 10-Year and 20-Year Treasury Bond (Dollar Value) Futures Indices, the excess return is calculated using the Australian dollar value change rather than the price change. The Australian dollar value is calculated using the price of the underlying future's contract, following the local Australian market convention in which performance is measured using the dollar value including interest.

Dollar Value Calculation

$$DV = FV \times \left[\frac{c \, (1 - v^n)}{i} + 100 v^n \right] \tag{1}$$

where:

DV = Dollar Value

FV = Face Value = 1000 for both 3-Year and 10-Year Treasury bond futures, and 500 for 20-Year Treasury bond futures

$$i = \frac{100 - price}{200}$$

where:

Price = Price of the underlying future's contract

$$v = \frac{1}{1+i}$$

$$c = \frac{coupon\ rate}{2}$$

where:

Coupon Rate = 6% for both 3-Year and 10-Year Treasury bond futures, and 4% for 20-Year Treasury bond futures

n = Coupon frequency, or years \times 2 for payments on a semi-annual basis. For example, for 3-Year bond futures, $n = 3 \times 2 = 6$.

v, v^n and $\frac{c(1-v^n)}{i}$ are rounded to eight decimal places and the dollar value is rounded to two decimal places.

Calculation of Index Total Return

The methodology calls for using an actual day count to calculate the interest rate of return instead of actual days. For information on the calculation of the Total Return index levels, please refer to the Other Derived Indices section focusing on Total Return Index Calculation Using Actual Day Counts of the S&P Dow Jones Indices' Commodity Index Mathematics Methodology.

The table below lists the total return indices and their corresponding risk-free rate.

Index	Risk Free Rate	Symbol	Day Count
S&P U.S. Treasury Bond Futures Index	91-Day T-Bill Rate	TBR	ACT/360
S&P 2-Year U.S. Treasury Note Futures Index	91-Day T-Bill Rate	TBR	ACT/360
S&P 5-Year U.S. Treasury Note Futures Index	91-Day T-Bill Rate	TBR	ACT/360
S&P 10-Year U.S. Treasury Note Futures Index	91-Day T-Bill Rate	TBR	ACT/360
S&P Ultra 10-Year U.S. Treasury Note Futures Index	91-Day T-Bill Rate	TBR	ACT/360
S&P Ultra T-Bond Futures Index	91-Day T-Bill Rate	TBR	ACT/360
S&P Euro-Schatz Futures Index	3-Month German Bubill Rate	GBR	ACT/360
S&P Euro-Bobl Futures Index	3-Month German Bubill Rate	GBR	ACT/360
S&P Euro-Bund Futures Index	3-Month German Bubill Rate	GBR	ACT/360
S&P Euro-Buxl Futures Index	3-Month German Bubill Rate	GBR	ACT/360
S&P Euro-OAT Futures Index	3-Month German Bubill Rate	GBR	ACT/360
S&P Euro-BTP Futures Index	3-Month German Bubill Rate	GBR	ACT/360
S&P Swiss-CONF Futures Index	Swiss 3-Month Benchmark Rate	SBR	ACT/360
S&P Long Gilt Futures Index Index	United Kingdom 3-Month Benchmark Rate	PBR	ACT/365
S&P 10-Year Canada Government Bond Futures Index	Canadian Overnight Repo Rate Average + 45.5 basis points	CORRA	ACT/365
S&P 10-Year JGB Futures Index	Generic 3-Month Japanese Govt Bill Rate	JBR	ACT/365
S&P/ASX Australian 3-Year Treasury Bond Futures Index	Generic 3-Month Australian Bank Bill Rate	ABR	ACT/365
S&P/ASX Australian 10-Year Treasury Bond Futures Index	Generic 3-Month Australian Bank Bill Rate	ABR	ACT/365
S&P/ASX Australian 20-Year Treasury Bond Futures Index	Generic 3-Month Australian Bank Bill Rate	ABR	ACT/365
S&P/ASX Australian 3-Year Treasury Bond (Dollar Value) Futures Index	Generic 3-Month Australian Bank Bill Rate	ABR	ACT/365
S&P/ASX Australian 10-Year Treasury Bond (Dollar Value) Futures Index	Generic 3-Month Australian Bank Bill Rate	ABR	ACT/365
S&P/ASX Australian 20-Year Treasury Bond (Dollar Value) Futures Index	Generic 3-Month Australian Bank Bill Rate	ABR	ACT/365

Index Maintenance

Rebalancing

Explicit in the calculation of futures-based indices is the rolling of futures contracts. Therefore, no separate announcements are made.

Currency of Calculation and Additional Index Return Series

In addition to the indices detailed in this methodology, additional return series versions of the indices may be available, including, but not limited to: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to the S&P DJI
Methodology & Regulatory Status Database.

For information on the calculation of other types of indices, please refer to the Other Derived Indices section of the S&P Dow Jones Indices' Commodity Index Mathematics Methodology.

For the inputs necessary to calculate certain types of indices, including decrement, dynamic hedged, fair value, and risk control indices, please refer to the Parameters documents available at www.spglobal.com/spdji/.

Index Governance

Index Committee

An Index Committee maintains the indices. All members of the Committee are full-time professionals at S&P Dow Jones Indices. The Committee meets regularly. The Committee may revise index policy covering rules for including currencies, the timing of rebalancing or other matters.

S&P Dow Jones Indices considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential. The Index Committee is separate from and independent of other analytical groups at S&P Global. In particular, the Index Committee has no access to or influence on decisions by S&P Global Ratings analysts.

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 the Index Governance section of the S&P Dow Jones Indices' Commodities Indices Policies & Practices Methodology.

Index Policy

Announcements

The indices calculate daily when the relevant futures markets are open for official trading, excluding holidays and weekends.

Holiday Schedule

The indices calculate daily, throughout the calendar year. Indices based on futures contracts traded on the CME follow the CME holiday schedule. The S&P Euro & Swiss-denominated Futures Indices follow the EUREX Exchange holiday schedule and the S&P 10-year JGB Futures index follows the JPX holiday schedule. The S&P/ASX Australian Bond Futures follow the SFE (Sydney Futures Exchange) holiday schedule.

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.

Unexpected Exchange Closures

For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices' Commodities Indices Policies & Practices Methodology.

For information on Calculations and Pricing Disruptions, Expert Judgment, Data Hierarchy and Error Corrections, please refer to S&P Dow Jones Indices' Commodities Indices Policies & Practices Methodology.

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.spglobal.com/spdji/, 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. Inverse versions of certain indices also exist. All versions of the below indices that may exist are also covered by this document. Please refer to the S&P DJI Methodology & Regulatory Status Database for a complete list of indices covered by this document.

	BBG Real			Launch		Base
Index Name	Time	BBG	RIC	Date	Base Date	Value
S&P U.S. Treasury Bond Futures Excess Return Index	SPUSTBP		.SPUSTBP	03/26/2010	12/01/1999	100
S&P U.S. Treasury Bond Futures Total Return Index	SPUSTBTR		.SPUSTBTR	03/26/2010	12/01/1999	100
S&P U.S. Treasury Bond Futures Month-End Roll Index (4PM ET Close) (USD) ER	SPUSTBMP		.SPUSTBMP	02/01/2021	12/31/2015	100
S&P U.S. Treasury Bond Futures Month-End Roll Index (4PM ET Close) (USD) TR	SPUSTBMT		.SPUSTBMT	02/01/2021	12/31/2015	100
S&P U.S. Treasury Bond Futures Inverse Index ER	SPUSTBIP		.SPUSTBIP	01/10/2017	06/01/2011	100
S&P U.S. Treasury Bond Futures 2X Leverage Index ER	SPUST2LP		.SPUST2LP	01/10/2017	06/01/2011	100
S&P U.S. Treasury Bond Futures 2X Inverse Index ER	SPUST2IP		.SPUST2IP	01/10/2017	06/01/2011	100
S&P 2-Year U.S. Treasury Note Futures Excess Return Index	SPUST2P		.SPUST2P	03/26/2010	12/01/1999	100
S&P 2-Year U.S. Treasury Note Futures Total Return Index	SPUST2TR		.SPUST2TR	03/26/2010	12/01/1999	100
S&P 2-Year U.S. Treasury Note Futures Month-End Roll Index (4PM ET Close) (USD) ER	SPUST2MP		.SPUST2MP	02/01/2021	12/31/2015	100
S&P 2-Year U.S. Treasury Note Futures Month-End Roll Index (4PM ET Close) (USD) TR	SPUST2MT		.SPUST2MT	02/01/2021	12/31/2015	100
S&P 5-Year U.S. Treasury Note Futures Excess Return Index	SPUST5P		.SPUST5P	03/26/2010	12/01/1999	100
S&P 5-Year U.S. Treasury Note Futures Total Return Index	SPUST5TR		.SPUST5TR	03/26/2010	12/01/1999	100
S&P 5-Year U.S. Treasury Futures Month- End Roll Index (4PM ET Close) (USD) ER	SPUST5MP		.SPUST5MP	02/01/2021	12/31/2015	100
S&P 5-Year U.S. Treasury Futures Month- End Roll Index (4PM ET Close) (USD) TR	SPUST5MT		.SPUST5MT	02/01/2021	12/31/2015	100
S&P 10-Year U.S. Treasury Note Futures Excess Return Index	SPUSTTP		.SPUSTTP	03/26/2010	12/01/1999	100
S&P 10-Year U.S. Treasury Note Futures Inverse Index ER			.SPUSTT1IP	05/14/2018	12/01/1999	100
S&P 10-Year U.S. Treasury Note Futures Total Return Index	SPUSTTTR		.SPUSTTTR	03/26/2010	12/01/1999	100
S&P 10-Year U.S. Treasury Futures Month- End Roll Index (4PM ET Close) (USD) ER	SPUSTTMP		.SPUSTTMP	02/01/2021	12/31/2015	100
S&P 10-Year U.S. Treasury Futures Month- End Roll Index (4PM ET Close) (USD) TR	SPUSTTMT		.SPUSTTMT	02/01/2021	12/31/2015	100
S&P 10-Year U.S. Treasury Futures Month- End Roll Index (4PM ET Close) JPY Hedged ER		SPUTMJHP		05/19/2023	03/31/2021	100
S&P 10-Year U.S. Treasury Futures Month- End Roll Index (4PM ET Close) JPY Hedged TR		SPUTMJHT		05/19/2023	03/31/2021	100

BBG Real			Launch		Base
Time	BBG	RIC	Date	Base Date	Value
SPUTT2IE		.SPUTT2IE	02/20/2024	12/01/1999	1000
SPUTT2LE		.SPUTT2LE	02/20/2024	12/01/1999	100
SPUSTNP		.SPUSTNP	05/31/2016	01/08/2016	100
SPUSTNTR		.SPUSTNTR	05/31/2016	01/08/2016	100
SPUSTNMP		.SPUSTNMP	02/01/2021	01/29/2016	100
SPUSTNMT		.SPUSTNMT	02/01/2021	01/29/2016	100
	SPUUMJHP		05/19/2023	03/31/2021	100
	SPUUMJHT		05/19/2023	03/31/2021	100
SPUSTUP		.SPUSTUP	03/26/2010	12/01/1999	100
SPUSTUTR		.SPUSTUTR	03/26/2010	12/01/1999	100
	SPUSU2IE		06/01/2023	02/26/2010	100
SPUSTUMP		.SPUSTUMP	02/01/2021	12/31/2015	100
SPUSTUMT		.SPUSTUMT	02/01/2021	12/31/2015	100
	SPEUSCP	.SPEUSCP	09/01/2011	12/01/1999	100
	SPEUSCTR	.SPEUSCTR	09/01/2011	12/01/1999	100
					100
	SPEUBLTR	.SPEUBLTR	09/01/2011	12/01/1999	100
SPEUBDP		.SPEUBDP	09/01/2011	12/01/1999	100
					100
					100 100
					100
	SPEUOATR	.SPEUOATR	07/10/2017	04/30/2012	100
	SPEUBPP	.SPEUBPP	07/10/2017	09/30/2009	100
	SPEUBPTR	.SPEUBPTR	07/10/2017	09/30/2009	100
	SPCHCFP	.SPCHCFP	07/10/2017	12/01/1999	100
	SPCHCFTR	.SPCHCFTR	07/10/2017	12/01/1999	100
	SPUKGTP	.SPUKGTP		11/29/1999	100
	SPUKGTTR	.SPUKGTTR	04/09/2018	11/29/1999	100
	SPCACGP	.SPCACGP	04/09/2018	11/29/1999	100
	SPCACGTR	.SPCACGTR	04/09/2018	11/29/1999	100
	SPJGBER	.SPJGBER	10/31/2011	12/30/1998	100
	SPJGBTR	.SPJGBTR	10/31/2011	12/30/1998	100
	SPAUD10P	.SPAUD10P	03/05/2012	12/01/1999	100
	SPAUD10T	.SPAUD10T	03/05/2012	12/01/1999	100
	SPAUD10P	.SPAUD10P	03/05/2012	12/01/1999	100
	SPAUD10T	.SPAUD10T	03/05/2012	12/01/1999	100
	SPAUD20P	.SPAUD20P	03/14/2016	10/12/2015	100
	SPAUD20T	.SPAUD20T	03/14/2016	10/12/2015	100
	SPUTT2IE SPUTT2IE SPUSTNP SPUSTNMT SPUSTNMT SPUSTUP SPUSTUMP SPUSTUMT SPUSTUMP SPUSTUMT	Time BBG SPUTT2LE SPUSTNP SPUSTNTR SPUSTNMP SPUSTNMT SPUSTNMT SPUUMJHP SPUUMJHP SPUSTUMP SPUSUZIE SPUSTUMP SPEUSCP SPEUSCP SPEUBLP SPEUBLP SPEUBLR SPEUBLR SPEUBXP SPEUBXR SPEUBATR SPEUBATR SPEUBPP SPEUBPP SPEUBPP SPEUBPR SPEUBPR SPEUBPR SPEUBPR SPEUBPR SPEUBPR SPEUBCTR<	Time BBG RIC SPUTT2IE .SPUTT2IE SPUTT2LE .SPUSTNP SPUSTNP .SPUSTNP SPUSTNTR .SPUSTNTR SPUSTNMP .SPUSTNMP SPUSTNMT .SPUSTNMT SPUUMJHP SPUSTUP .SPUSTUP SPUSTUP .SPUSTUP SPUSTUP .SPUSTUP SPUSTUP .SPUSTUP SPUSTUP .SPUSTUP SPUSTUP .SPUSTUP SPUSTUP .SPUSTUP SPUSTUP .SPUSTUP SPUSTUMP .SPUSTUMP SPUSTUMP .SPUSTUMP SPUSTUMP .SPUSTUMP SPEUSCP .SPEUSCP SPEUSCP .SPEUSCP SPEUSCP .SPEUBLP SPEUBLR	Time BBG RIC Date SPUTT2IE .SPUTT2IE 02/20/2024 SPUSTNP .SPUSTNP 05/31/2016 SPUSTNR .SPUSTNR 05/31/2016 SPUSTNMP .SPUSTNMP 02/01/2021 SPUSTNMP .SPUSTNMP 02/01/2021 SPUSTNMT .SPUSTNMT 02/01/2021 SPUSTNMT .SPUSTNMT 02/01/2023 SPUSTUP .SPUSTUP 03/26/2010 SPUSTUR .SPUSTUR 03/26/2010 SPUSTUR .SPUSTUR 03/26/2010 SPUSTUMP .SPUSTUR 02/01/2021 SPUSTUMP .SPUSTUR 02/01/2021 SPUSTUMP	Time BBG RIC Date Base Date SPUTTZIE .SPUTTZIE 02/20/2024 12/01/1999 SPUSTNP .SPUSTNP 05/31/2016 01/08/2016 SPUSTNRP .SPUSTNRP 05/31/2016 01/08/2016 SPUSTNMP .SPUSTNMP 02/01/2021 01/29/2016 SPUSTNMT .SPUSTNMT 02/01/2021 01/29/2016 SPUSTNMT .SPUSTNMT 02/01/2021 01/29/2016 SPUSTUMP 05/19/2023 03/31/2021 SPUSTUP 05/19/2023 03/31/2021 SPUSTUP 05/19/2023 03/31/2021 SPUSTUP .SPUSTUP 03/26/2010 12/01/1999 SPUSTUR .SPUSTUR 03/26/2010 12/01/1999 SPUSUBLE 06/01/2021 12/31/2015 SPUSTUMP .SPUSTUMP 02/01/2021 12/01/1999 SPUSTUMT <

Index Name	BBG Real Time	BBG	RIC	Launch Date	Base Date	Base Value
S&P/ASX Australian 3-Year Treasury Bond (Dollar Value) Futures Total Return Index		SPAU3DT	.SPAU3DT	11/12/2015	12/01/1999	100
S&P/ASX Australian 10-Year Treasury Bond (Dollar Value) Futures Excess Return Index		SPAU10DP	.SPAU10DP	11/12/2015	12/01/1999	100
S&P/ASX Australian 10-Year Treasury Bond (Dollar Value) Futures Total Return Index		SPAU10DT	.SPAU10DT	11/12/2015	12/01/1999	100
S&P/ASX Australian 20-Year Treasury Bond (Dollar Value) Futures Excess Return Index		SPAU20DP	.SPAU20DP	11/12/2015	10/15/2015	100
S&P/ASX Australian 20-Year Treasury Bond (Dollar Value) Futures Total Return Index		SPAU20DT	.SPAU20DT	11/12/2015	10/15/2015	100
S&P U.S. Treasury Dynamic Trend Index (USD) ER		SPUSTDTP	.SPUSTDTP	01/27/2020	08/28/1989	100

Index Data

Daily index level data is available via subscription.

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

Web site

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

Appendix A

Calculation of Additional Indices

S&P US Treasury Bond Futures Month-End Roll (4PM ET Close) Index Family

The S&P US Treasury Bond Futures Month-End Roll Index family follows the same calculations and methodology as the existing S&P US Treasury Bond Futures indices. The difference between the excess and total return indices is the roll period is not based on the First Position Date. The roll period is a one-day roll effective prior to open of trading on the first business day of March, June, September, and December. The prices used to calculate the index levels use a 4PM ET snapshot of the underlying commodities instead of the normal settlement prices used to calculate the additional Treasury futures indices.

S&P US Treasury Dynamic Trend Index

The S&P U.S. Treasury Dynamic Trend Index measures the performance of a strategy that rotates between 5-year U.S. Treasury futures and 10-year U.S. Treasury futures based on the price trend of U.S. treasuries. The index rebalances daily. The index evaluates its allocation on a daily basis, with any changes to the weights effective at the open of *t*+2.

Approaches. The following selection process is performed:

- 1. On the inception day, the index allocates 100% in the 10-year U.S. Treasury futures.
- 2. On any business day, the index compares the 5-day return and 40-day return for each U.S. Treasury futures.
 - a. If the five-day return is greater than the 40-day return, the futures is considered trending up.
 - b. Otherwise, the futures is considered trending down.
- 3. If the futures that is currently held by the index is trending down, the index allocates 100% to the 5-year U.S. Treasury futures.
- 4. If the futures that is currently held by the index is trending up and the 10-year U.S. Treasury futures is trending up, the index allocates 100% to the 10-year U.S. Treasury futures.
 - a. Otherwise, the index allocates 100% to the 5-year U.S. Treasury futures.

The index evaluates its allocation on daily basis, and the changes are made weights effective at the open of *t*+2.

The 5-year U.S. Treasury futures and the 10-year U.S. Treasury futures are represented by the two S&P indices listed in the following table:

Underlying	Data
5-year U.S. Treasury futures	S&P 5-Year U.S. Treasury Note Futures Index
10-year U.S. Treasury futures	S&P 10-Year U.S. Treasury Note Futures Index

Allocation Process. On any business day *t*, allocation between the two underlying U.S. Treasury futures calculate with the following steps:

1. Calculate price returns of the U.S. Treasuries:

$$5Y_40D_Change_t = 5Y_Futures_t / 5Y_Futures_{t-40} - 1$$

 $10Y_5D_Change_t = 10Y_Futures_t / 10Y_Futures_{t-5} - 1$

 $10Y_40D_Change_t = 10Y_Futures_t / 10Y_Futures_{t-40} - 1$

where:

5Y_Futures *t* is the price of 5-year U.S. Treasury

10Y_Futures *t* is the price of 10-year U.S. Treasury

2. Determine the price trends:

Then 5Y Trend t = up

Else $5Y_Trend_t = down$

If 10Y_5D_Change t > 10Y_40D_Change t

Then $10Y_Trend_t = up$

Else $10Y_Trend_t = down$

If W $_{10Y, t-1} = 100\%$

Then Current_Futures_ Trend t = 10Y_Trend t

Else Current_Futures_ Trend $t = 5Y_Trend t$

where:

W _{10Y, t-1} is the index weight in 10-Year U.S. Treasury futures on *t-1* as of market close

3. Calculate index allocation:

 $W_{10Y,t} = 100\% - W_{5Y,t}$

If Current_Futures_ Trend t-1 = up and $10Y_Trend t-1 = up$

Then W $5_{Y,t} = 0\%$

If Current_Futures_ Trend t-1 = up and $10Y_Trend t-1 = down$

Then W $5_{Y, t} = 100\%$

If Current Futures Trend t-1 = down

Then W $_{5Y, t} = 100\%$

Excess Return Indices Calculations. On each business date *t*, the excess return index calculates as:

IndexER_t = IndexER_{t-1} *
$$\sum_{i} W_{i,t-1} * (\frac{ER_{i,t}}{ER_{i,t-1}} - 1)$$

where:

 $IndexER_t$ = Excess Return Index value as of the current date t

 $IndexER_{t-1}$ = Excess Return Index value as of the last business date t-1

 $W_{i,t-1}$ = Weight of treasury futures *i* on the last business date *t-1*

 $ER_{i,t}$ = Excess Return index value of Treasury Futures *i* as of *t*

 $ER_{i,t-1}$ = Excess Return index value of Treasury Futures i as of the last business date t-1

For more information on the index calculation methodology, please refer to the Weighted Return Indices section of the S&P Dow Jones Indices' Commodity Index Mathematics Methodology.

Appendix B

Methodology Changes

	Effective Date		dology
Change	(After Close)	Previous	Updated
Risk Free Rate: S&P 10-Year Canada Government Bond Futures Index	06/28/2024	S&P 10-Year Canada Government Bond Futures Index Risk Free Rate was the Three-Month CDOR	S&P 10-Year Canada Government Bond Futures Index Risk Free Rate is the CORRA Overnight + 045.5 basis points.
Prices Used: S&P U.S. Treasury Futures Month-End Roll Indices	03/14/2023	Designated official settlement price as provided by the exchange	The prices used to calculate the index levels use a 4PM ET snapshot of the underlying commodities
Roll Period: Euro and Swiss Futures	11/25/2019	One-day roll occurring on the third to last business day of the prior month before contract expiration.	One-day roll occurring three business days prior to the contract expiration.
Roll Period: Long Gilt and 10- Year Canada Government Bond Futures	11/25/2019	One-day roll occurring on the third to last business day of the prior month before contract expiration.	One-day roll occurring three business days prior to the First Notice Day.
Index Names: S&P 10-Year Canada Government Bond Futures Index S&P 10-Year Canada Government Bond Futures Excess Return Index S&P 10-Year Canada Government Bond Futures Total Return Index	06/28/2018	The index names are: S&P Canada-CGB Futures Index S&P Canada-CGB Futures Excess Return Index S&P Canada-CGB Futures Total Return Index	 The index names are: S&P 10-Year Canada Government Bond Futures Index S&P 10-Year Canada Government Bond Futures Excess Return Index S&P 10-Year Canada Government Bond Futures Total Return Index

Appendix C

ESG Disclosures

E	EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY ¹				
1.	Name of the benchmark administrator.	S&P Dow Jones Indices LLC.			
2.	Underlying asset class of the ESG benchmark. ²	N/A			
3.	Name of the S&P Dow Jones Indices benchmark or family of benchmarks.	S&P DJI Futures Indices Benchmark Statement			
4.	Do any of the indices maintained by this methodology take into account ESG factors?	No			
Ap	pendix latest update:	January 2021			
Appendix first publication:		January 2021			

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¹ The information contained in this Appendix is intended to meet the requirements of the European Union Commission Delegated Regulation (EU) 2020/1817 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation of how environmental, social and governance factors are reflected in the benchmark methodology and the retained EU law in the UK [The Benchmarks (amendment and Transitional Provision) (EU Exit) Regulations 2019].

² The 'underlying assets' are defined in European Union Commission Delegated Regulation (EU) 2020/1816 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the explanation in the benchmark statement of how environmental, social and governance factors are reflected in each benchmark provided and published.

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Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index's launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Also, the treatment of corporate actions in back-tested performance may differ from treatment for live indices due to limitations in replicating index management decisions. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

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