

Wilshire

Wilshire TIPS IndexSM

Index Rule Book

June 2020

Introduction

Wilshire Associates Incorporated (“Wilshire”) designed the Wilshire TIPS Index to represent U.S. Treasury Inflation Protected Securities (TIPS) with a target maturity similar to the 10-Year T-Note Futures Contract. The Wilshire TIPS includes an optimized basket of TIPS securities that provide added liquidity versus a single TIPS security.

Index Family

The Wilshire TIPS index family includes one index, with a target maturity similar to the 10-Year T-Note Futures contract:

- Wilshire TIPS Index

Index Attributes

Coupon Treatment

The Wilshire TIPS Index is calculated as total-return index. Coupons are accrued daily.

Based Date and Based Value

Each of the Wilshire TIPS Indexes has a base date of December 31, 2004, and a base value of 100.0 with daily index levels from the base date.

Computational Precision

Index values are rounded to four decimal places.

Daily Calculation Cycle

The index calculation week begins at 6:00 p.m. ET on Sunday and ends at 5:00 p.m. ET on Friday. Closing values of the indexes are calculated on a 24-hour day that ends at 5:00 p.m. ET.

Following the determination of the previous day's closing index level, Wilshire index levels for the current day are updated on a day basis beginning at 6:00 p.m. New York time whenever any of the exchanges represented in the index are open. (Next-day trading prices from Asia-Pacific markets are not included in the index calculation until 6:00 p.m. New York time to insure that each day's price history includes only one day's trading.) Indexes unaffected by that trading, however, are not updated.

Prices

U.S. TIPS are quoted using the 16:00 (ET) evaluated data provided by ICE Data Services. The rules based evaluation logic by ICE Data Services, utilizes valuation technique that reflect market participants' assumptions, and maximizes the use of relevant observable data. Contributors to U.S. TIPS evaluation include active market makers in Treasury securities and inter-dealer brokers.

Index Currencies

Index levels are computed on a total-return basis in U.S. dollars.

Liquidity Requirement

All U.S. Treasury Inflation Protected Securities are deemed highly liquid. The Index has the additional requirement of having an outstanding value greater than \$250 million.

Index Construction

Component Selection

TIPS are selected by including all TIPS at their full market value, around the target maturity until the largest weighted security is less than or equal to 10 percent, such that the basket's maturity closely resembles maturity of the near-term 10-Year T-Note Futures Contract.

Weighting Scheme

Selected TIPS are capitalization weighted.

Index Maintenance

Monthly Rebalance

The inclusion range is updated once a month using prior month-end data to the month-end rebalance date. The end-of-month rebalance weights are preannounced at least two business days prior to the rebalance date to be implemented after the close of the rebalance date.

Reinvestment of Coupon

- Coupon payments from each TIPS is reinvested back into the current TIPS on the coupon date.

Calculation and Adjustments

Input Data Sources

- Prices and outstanding values are provided by ICE Data Services (Interactive Data Corporation).
- TIPS accruals are calculated by Wilshire Associates using the Wilshire Axiom.

Index Formula

TIPS Return

$$\text{TIPS Return} = ((P1+A1+C)*f1 / (P0+A0+C)*f0) -1$$

Where

P = Price

A = Accrual

C = Coupon

f = Inflation Factor

Inflation Factor = CPI (at analysis date – lag month) / CPI (at issue date – lag month)

Accrual = Actual/Actual with Semi-Annual Payment Frequency

CPI is retrieved monthly from Bureau of Labor Statistics (www.bls.gov/cpi/home.htm)

Index Return

$$\text{Index Return}(t) = \sum_{i=1}^n W_i, (t - 1) * R_{i, t}$$

Where

W = Weight of Instrument

R = Return of Instrument

i = single investment

n = number of Instruments

t = business day

t-1 = prior business day

Index Level

$$\text{Index Level}(t) = \text{Index Level}(t-1) * (1 + \text{Index Return}(t))$$

Data Correction Policy

To maintain high data integrity standards, procedures have been implemented to ensure accuracy, timeliness and consistency. Input prices are monitored using various computerized range-check warning systems for both ticker-plant and real-time index systems. Fault tolerant methods are employed in the collection of market and corporate action data. Various verification and audit tasks are performed to ensure the quality of the real-time data feeds and related market data.

While every effort is taken to ensure the accuracy of the information used for the index calculation, an index error may occur due to incorrect or missing data, including trading prices, exchange rates, shares outstanding and corporate actions, due to operational errors or other reasons.

Index-Related Data Corrections

Incorrect pricing and corporate action data for individual issues in the database will be corrected upon detection. If discovered within five days of its occurrence, it will always be fixed on the day it is discovered to prevent an error from being carried forward. If an error is discovered more than five days after occurrence, the adjustment will depend upon how significant the error is, how far back the error occurred and the feasibility of performing the adjustment.

Methodology Changes

Wilshire Associates reserves the right to modify the methodology of calculating the Wilshire Index family at any time.

Index History Notes

Rebalance months prior to March 2007 relaxed the largest weight cap of 10 percent to meet the maturity target. This cap was raised in one-percent increments until the maturity target was met. The largest adjusted cap was 17 percent.

The Wilshire Indexes Advisory Board

The Advisory Board provides professional counsel to Wilshire Associates regarding the Wilshire family of indexes. The Advisory Board consists solely of full-time Wilshire Associates employees who represent money management, investment products, and retirement plans in discussing issues either brought to them by Wilshire Associates, or raised by Members themselves. Matters may include a need for and methodology of new indexes, as well as proposed methodology changes for existing indexes.

Wilshire Index Oversight Committee

The Wilshire Index Oversight Committee is comprised of managers from Wilshire Associates who are directly involved in creating, maintaining and distributing the Wilshire Indexes. The Wilshire Index Oversight Committee provides interpretations of index rules and procedures, and is convened as needed to rule on how the indexes will handle complex and special situations.

Index Policy

Calculation Schedule

The indexes are global and are calculated daily based on each business day excluding weekends.

For Further Information

Please visit www.wilshire.com, email WilshireIndexes@wilshire.com, or call Jeffrey Foley at 1.310.260.6616.

Index Dissemination

The Wilshire TIPS Index levels and returns are available at www.wilshire.com/indexcalculator/, major quote vendors, numerous investment-oriented websites and various print and electronic media.

Tickers

The table below lists the indexes covered by this document. Other return type version of the below indexes may exist and are also covered by this document. Please contact WilshireIndexes@wilshire.com for a complete list of indexes covered by this document.

Index	Bloomberg	Others
Wilshire TIPS Index	WILTIPS	WILTIPS

FTP

Daily index level and constituent data is available via FTP subscription and by data vendors to Wilshire Indexes licensees for paying subscribers.

More Information

For further information, please contact Wilshire Associates Incorporated at (310) 451-3051 or visit www.wilshire.com/indexes.

Information as of June 2020

The Wilshire IndexesSM are calculated and distributed by Wilshire. It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be available through investable instruments derived from that index. Wilshire makes no representations regarding the advisability of investing in investment products based on the Wilshire Indexes not sponsored, endorsed, sold or promoted by Wilshire. Index returns do not reflect payment of certain sales charges or fees an investor may pay to purchase the securities underlying the Index or investment vehicles intended to track the performance of the Index. The imposition of these fees and charges would cause actual performance of the securities/vehicles to be lower than the Index performance shown. Inclusion of a company in the Wilshire Indexes does not in any way reflect an opinion of Wilshire on the investment merits of the company.

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