

Truflation BEA PCE Warsh Trimmed Mean Price Index (TruPCEWarsh)

Methodology

June 19, 2026

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1. Executive Summary

The Truflation BEA PCE Warsh Trimmed Mean Price Index (TruPCEWarsh) is a real time, market based measure of underlying inflation designed to reduce the impact of short term price volatility across the consumer expenditure basket.

Traditional headline inflation measures can be materially influenced by temporary shocks in highly volatile categories such as energy, food, airfares, or used vehicles. These short term movements can distort the broader inflation signal, making it more difficult to identify persistent inflation trends.

The trimmed mean approach addresses this by systematically excluding the most extreme price movements, both positive and negative, before calculating the aggregate weighted inflation rate. The resulting index provides a smoother and more stable estimate of broad based inflation pressure across the economy.

The TruPCEWarsh Index is built using the Truflation BEA PCE Price Index as its underlying data foundation and applies a statistical trimming methodology to isolate persistent inflation momentum.

The objectives of the index are to:

- Capture the persistent trend in consumer price inflation
- Reduce volatility caused by temporary price shocks
- Improve signal extraction from high-frequency inflation data
- Provide a complementary measure alongside headline and core inflation

The index is intended as a measure of underlying inflationary pressure, rather than a direct measure of household cost of living changes.

2. Truflation BEA PCE Warsh Trimmed Mean Price Index Framework

The index is constructed using disaggregated price data from the Truflation BEA PCE Price Index at the component level. Input data includes:

- Price indices for each component
- Daily price changes for each component

- Expenditure weights associated with each component

The index is constructed using the full disaggregated consumer price data from the TruPCE Index that is rolled up to the component level which are:

- Furnishings and durable household equipment
- Recreational goods and vehicles
- Other durable goods
- Food and beverages purchased for off-premises consumption
- Clothing and footwear
- Gasoline and other energy goods
- Other nondurable goods
- Housing and utilities
- Health care
- Transportation services
- Recreation services
- Food services and accommodations
- Financial services and insurance
- Other services
- Final consumption expenditures of nonprofit institutions serving households (NPISHs)

Each component is assigned a weight according to the Truflation BEA PCE Price Index methodology, based on its share of aggregate household expenditure.

Calculation Methodology

The calculation follows four steps:

Step 1 - Calculate the Component Inflation

For each component, a daily year-over-year percentage price change is calculated.

Step 2 - Rank Components

All components are then ranked from highest to lowest year-over-year price change, creating a distribution from the largest price increases to the largest price declines across the components.

Step 3 - Trim Extreme Observations

The highest and lowest weighted price changes are removed from the distribution. This excludes components experiencing unusually large increases or declines during the period. Unlike core inflation, this methodology does not permanently exclude any category. Instead, trimming is dynamic and changes over time depending on which components are the most extreme.

Step 4 - Calculate the Trimmed Mean

Each of the remaining components is then added into the Trimmed mean inflation rate which is calculated as the weighted average of the remaining components. This produces a cleaner estimate of persistent inflation by reducing the influence of short term outliers.

Rebalancing

Component expenditure weights are updated annually to reflect evolving consumer spending patterns. Regular weight updates improve the representativeness of the index as household expenditures shift over time.

3. The Output Metrics

The Truflation BEA PCE Warsh Trimmed Mean Price Index is updated daily and produces the following data outputs:

- Current headline trimmed mean index value
- Prior year headline trimmed mean index value
- Year over year percentage trimmed mean inflation rate
- Historical time series

The index is available through the Truflation Dashboard, with data access and historical depth determined by subscription tier. The TruPCEWarsh Index launched on June 19, 2026, with historical data extending back to January 1, 2010.

4. Interpretation

Headline PCE remains valuable because it reflects the prices consumers are experiencing directly. However, it can swing sharply when oil, airfares, hotel rates, or used car prices move abruptly. Core inflation attempts to address these sharp moves by removing food and energy. However, this approach has limitations. It excludes the same categories every month, regardless of whether volatility is actually originating there.

Trimmed mean inflation takes a different approach. Rather than removing specific sectors permanently, it removes whichever components are

experiencing the most extreme price moves at that time, regardless of category. This makes it particularly useful in distinguishing:

- temporary price shocks
- sector-specific volatility
- broad and persistent inflation pressure

The result is a cleaner read on underlying inflation momentum.

Exhibit 1: The Comparison of the different Inflation Measures

Measure	What it does	Main weakness	Best use
Headline inflation	Includes everything	Can be heavily influenced by temporary shocks	Cost of living benchmark
Core inflation	Excludes food and energy	Misses volatility outside those categories	Broad underlying inflation trend
Trimmed Mean inflation	Removes the most extreme movers dynamically	Can understate tail risk if used alone	Cleaner & persistent inflation signal
Median Inflation	Uses the middle component in the distribution	Less intuitive and more abstract	Trend analysis and forecasting

5. Truflation BEA PCE Warsh Trimmed Mean Price Index Benefits

The Truflation BEA PCE Warsh Trimmed Mean Price Index offers several benefits for policymakers, investors, businesses and researchers.

- **Robust to Volatility:** Reduces distortion caused by one off shocks and short term price spikes.
- **Dynamic:** All components remain eligible for inclusion even if they are unusually volatile during that period.
- **Better Signal Extraction:** Provides a cleaner estimate of persistent inflation pressure.
- **Useful for Forecasting:** Historically effective in identifying medium term inflation trends and policy relevant inflation persistence.
- **High Frequency:** Daily updates reduce the lag between real-world price movements and inflation interpretation.

6. Summary

The Truflation BEA PCE Warsh Trimmed Mean Price Index provides a robust estimate of underlying inflation by removing the most extreme price movements and averaging the remaining weighted basket.

By filtering short term volatility while preserving broad price signals, it delivers a stable and policy relevant measure of inflation persistence across the economy.

More broadly, the index reflects a shift in inflation analysis away from relying on a single print and toward a richer framework designed to separate noise from trend. This matters because inflation today is increasingly shaped by:

- fast-moving geopolitical shocks
- sector-specific repricing
- supply chain disruptions
- abrupt commodity volatility

In this environment, policymakers and markets need tools that update quickly and handle outliers intelligently. Smoothed inflation is not a replacement for headline inflation. It is a better lens for understanding which parts of inflation are likely to persist, and which are more likely to fade.

Truflation's approach is to make all of these signals visible at once:

- Headline inflation
- Core inflation
- Rolling 7-day and 30-day trend averages
- Trimmed mean underlying inflation signal

Together, they provide a more complete and actionable framework for understanding inflation; not just where it is today, but where it may be heading next.

7. Version History

Version	Date Released	Notes
1.0	June 19, 2026	Genesis of the Truflation BEA PCE Warsh Trimmed Mean Price Index