

Truflation U.S. Breakfast Commodity Index (TruBfast-US)

Methodology

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1. Executive Summary

The Truflation U.S. Breakfast Commodity Index (TruBfast-US) is a simplified economic indicator that is designed to track changes in the cost of a representative breakfast by monitoring the underlying agricultural commodities that drive food prices. By linking everyday items, such as eggs, bread, cereals, bacon, sausages, milk, coffee, etc. to their commodity inputs (grains, dairy, coffee beans, sugar etc), the index provides a transparent view of how global commodity markets inflate household food costs.

The index captures price movements across key agricultural commodities with fluctuations in these inputs reflecting broader market dynamics such as weather events, geopolitical tensions, trade policy, currency movements and input cost inflation. It tracks the cost of a standard breakfast over time to illustrate changes in consumer prices, purchasing power, and cost-of-living pressures. It provides an intuitive and relatable snapshot to food inflation and household expense trends, while translating commodity data into a practical, everyday context, to understand inflationary impacts.

Key insights that are generated from the index include:

- Pass through effects from commodity prices volatility to consumer food price
- Early signals of food inflation, as commodity prices often move ahead of retail pricing
- Supply chain stress indications driven by supply disruptions, geopolitical tensions and weather fluctuations

The Truflation U.S. Breakfast Commodity Index complements traditional inflation measures by isolating the commodity cost drivers behind food price changes offering policymakers, investors and business leaders an accessible yet analytically grounded tool for assessing inflation risk, margin pressure and consumer affordability. The index provides a focussed, real world lens on how commodity market dynamics translate into daily consumer expenses.

2. Truflation U.S. Breakfast Commodity Index Framework

The primary objective of the Truflation U.S. Breakfast Commodity Index is to provide a real time transparent and intuitive measure of food related inflation by tracking commodity driven cost of a representative breakfast. By linking

everyday consumer items to their underlying commodity inputs, the index aims to translate global commodity price movements into a clear signal of how inflation is affecting household purchasing power. It is designed to:

- Capture early inflation signals through upstream commodity markets
- Improve transparency in how commodity price changes pass through to consumer costs
- Offer a practical, relatable benchmark that complements traditional inflation measures
- Enable timely insights for policymakers, investors, and businesses using high frequency data.

In essence, the Truflation U.S. Breakfast Commodity Index bridges the gap between abstract commodity markets and real world consumer experience by delivering an accessible indicator of food inflation grounded in verifiable market data. The index is constructed through the following steps:

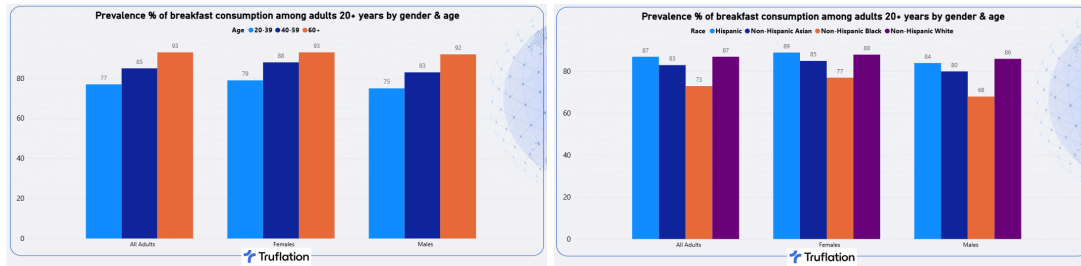
Step 1: Definitions

The first step in constructing the Truflation U.S. Breakfast Commodity Index is to define the basket of items to be included. To do so, it is important to first understand the consistency and prevalence of breakfast consumption. In this context, research published by the USDA indicates that on any given day approximately 85% of adults aged 20 years or older consume one or more foods and/or beverages at breakfast.

The prevalence of breakfast consumption does not differ materially between males and females (83% versus 86%); however, it varies modestly by age group (see Exhibit 1). Adults aged 60 and over are more likely to consume breakfast than those aged 20–39 or 40–59. In addition, breakfast consumption differs by race and ethnicity, with a lower proportion of non-Hispanic Black adults consuming foods or beverages at breakfast compared with non-Hispanic White, non-Hispanic Asian, and Hispanic adults.

Nevertheless, on average, the vast majority of Americans consume some form of breakfast, supporting its use as a representative and widely relevant consumption basket.

Exhibit 1 – Prevalence % of breakfast consumption



Source: USDA WWEIA & NHANES

Having established the prevalence of breakfast consumption, the next step is to define the foods and beverages typically consumed at breakfast. According to the USDA, the most commonly consumed breakfast items are outlined in Exhibit 2. Grain products account for the largest share of foods consumed at breakfast, reflecting their central role in the morning meal.

The data also indicates that a majority of consumers (79%) consume a beverage with breakfast, with coffee emerging as the beverage of choice. These consumption patterns provide a clear and empirically grounded foundation for selecting representative items for inclusion in the Truflation U.S. Breakfast Commodity Index.

Exhibit 2 – Percentage of adults consuming Foods / Beverages at breakfast

Food Categories	Consumers	Beverage Categories	Consumers
Total Food	89%	Total Beverage	79%
Bread, rolls, tortillas	17%	Coffee	48%
Ready to eat cereals	14%	Sweetened beverages	10%
Cooked cereals	7%	Tea	9%
Pancakes, waffles & French toast	4%	Orange & other juices	7%
Muffins, Bagels & quick breads	3%	Milk	5%
Eggs & omelets	18%		
Bacon	4%		
Sausages	3%		
Doughnuts, sweet rolls, pastries	13%		
Fruit	13%		
Yoghurts	5%		

Source: USDA & WWEIA Food Categories

The final stage is to define the specific food and beverage items in order to determine which underlying commodities will be tracked and associated with the breakfast basket. Exhibit 3 outlines each breakfast item alongside its corresponding commodity inputs, enabling the index to capture early inflation signals through upstream commodity markets.

Exhibit 3 - Truflation Grouping of Individual items to Commodities

Individual Food / Beverage Items	Breakfast Group	Commodities
Bread, rolls, tortillas, muffins, bagels, quick breads, pancakes, waffles, ready to eat and cooked cereals	Cereals & Bread	Wheat futures Oats futures
Eggs & omelets	Eggs	NA*
Bacon & sausages (beef & pork)	Meats	Lean Hog futures Live Cattle futures
Doughnuts, sweet rolls, pastries & sweetened beverages	Sweets	Sugar futures Cocoa futures
Milk	Milk	Milk futures
Coffee	Coffee	Coffee futures
Tea	Tea	Tea futures
Orange Juice	Orange Juice	Orange Juice futures

One food item included in the breakfast basket, eggs, does not have a directly associated traded commodity. As a result, this component is supplemented with egg prices sourced from the Truflation U.S. CPI Eggs Index.

Step 2: Data Collection

The Truflation U.S. Breakfast Commodity Index is constructed using two primary data sources to ensure a comprehensive and timely reflection of breakfast-related food costs.

1. **Commodity Prices:** Daily prices for ten (10) agricultural commodities are collected to capture upstream cost movements. Each breakfast item in the basket is mapped to its corresponding commodity, enabling the index to detect early inflation signals in raw materials.
2. **Egg Prices:** Eggs, which do not have a traded commodity, are accounted for using price data sourced from the Truflation U.S. CPI Eggs Index. This ensures the breakfast basket accurately reflects real-world consumer costs for this staple item.

By combining these sources, the Breakfast Index translates commodity market fluctuations into a practical and transparent measure of food inflation affecting the average consumer.

Step 3: Data Weighting

Truflation adopts a consumer expenditure weighting approach, based on each component's share of average household spending on breakfast items. This methodology ensures that the index closely reflects real-world changes in the cost of living as experienced by consumers.

To determine the market share of household spending on breakfast items, Truflation leverages expenditure data from the Truflation CPI US Index, Global Demographics, the Bureau of Labor Statistics and the Bureau of Economic Analysis. An average across these sources is used to calculate expenditure weights, with the resulting 2026 weightings presented in Exhibit 4.

Exhibit 4 - Truflation U.S. Breakfast Commodity Index Weighting

Individual Food / Beverage Items	Breakfast Groups	Commodities association	Truflation Weighting
Bread, rolls, tortillas, muffins, bagels, quick breads, pancakes, waffles, ready to eat cereals and cooked cereals	Cereals & Bread	Wheat futures Oats futures	26.30%
Eggs & omelets	Eggs	NA*	11.24%
Bacon & sausages (beef & pork)	Meats	Lean Hog futures Live Cattle futures	10.0%
Doughnuts, sweet rolls, pastries & sweetened beverages	Sweets	Sugar futures Cocoa futures	14.8%
Milk	Milk	Milk futures	18.06%
Coffee	Coffee	Coffee futures	10.61%
Tea	Tea	Tea futures	6.14%
Orange Juice	Orange Juice	Orange Juice futures	2.85%

Weights as outlined in Exhibit 4 are updated annually in January, as a result of the formal methodology review and is communicated accordingly.

Step 4: Index Calculation Formula

To create the index, Truflation firstly converts each of the constituent prices into a normalized index of 100 on the index base date. After this the index value is calculated as a weighted sum of constituent prices:

$$\begin{aligned}
 \text{TruBfast-US} = & (\text{Normalized index}_1 \times \text{Constituent Weight}_1) + \\
 & (\text{Normalized index}_2 \times \text{Constituent Weight}_2) + \dots \\
 & + (\text{Normalized index}_{11} \times \text{Constituent Weight}_{11})
 \end{aligned}$$

The Truflation U.S. Breakfast Commodity Index is calculated and updated daily at 23:59 UTC time to reflect prevailing market conditions.

Step 5: Rebalancing Frequency

An annual rebalance is conducted each February (on or before the 15th) and applied retroactively from the first trading day of the month. Constituents are re-evaluated based on updated BLS, PCE and Global Demographics releases for previous year.

Step 6: Scaling Factor (Divisor Adjustment)

A scaling factor is applied to maintain index continuity and prevent artificial changes in the index level resulting from structural events. Structural events include constituent additions or deletions, changes in index weights due to scheduled rebalancing, and other methodology-driven adjustments.

The scaling factor is calculated as:

$$\text{Scaling Factor} = \text{Old Weighted Sum} / \text{New Weighted Sum}$$

The index level is calculated as:

$$\text{Index Level} = \text{Weighted Sum} \times \text{Scaling Factor}$$

Prior to a structural event, the scaling factor remains unchanged. On the effective date of a constituent change or weight rebalance, the scaling factor is recalculated so that the index level immediately before and after the event remains consistent. The recalculated scaling factor remains in effect until the next structural event requiring adjustment.

All scaling factor changes are documented with effective dates to ensure transparency, auditability, and historical consistency of the index series.

3. The Output Metrics

The Truflation U.S. Breakfast Commodity Index will be updated on a daily basis and produces the following indexes:

1. Truflation U.S. Breakfast Commodity Headline Index
2. Daily Headline year on year percentage change
3. Each of the constituents Index
4. Each of the constituents year on year percentage change
5. Historical time series

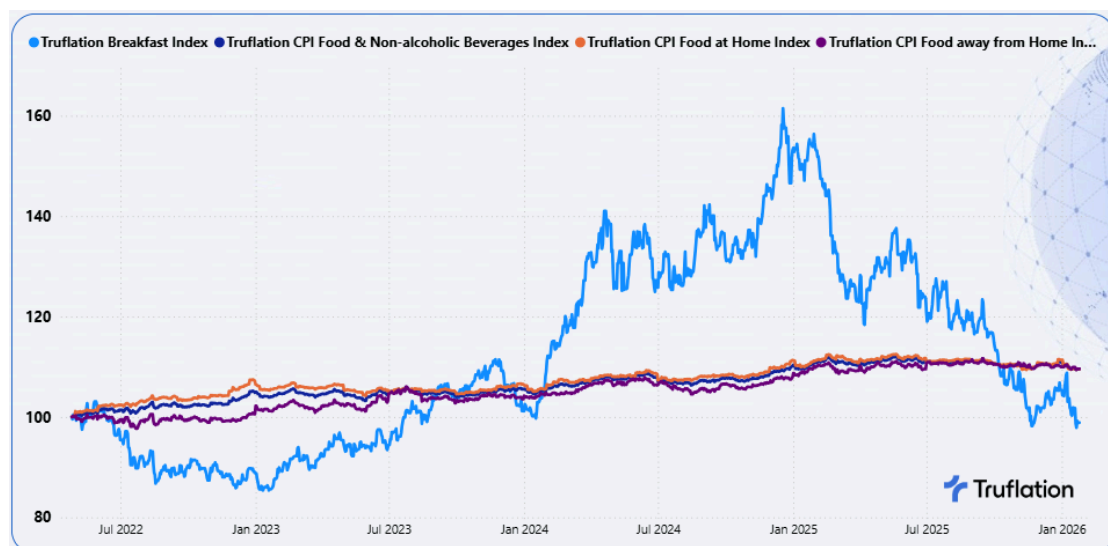
The TruBfast-US index was launched on November 27, 2025, with historical data back to April 26, 2022, which is the base index date.

4. Alignment of the TruBfast-US Index to Food Inflation

To determine if the Truflation Breakfast Commodity Index is a leading indicator for Food Inflation, a linear regression analysis was conducted to examine the relationship between the TruBfast-US Index (independent variable) to TruCPI-US Food category Index (dependent variable). The correlation analysis is based on data points from the 26th of April 2022 to the 25th of January 2026, with 1,371 observations. The resulting correlation coefficient, measured on a scale from -1 to +1 to indicate the strength and direction of the relationship, was 0.691099 indicating a strong statistical relationship between the two data sets.

In practical terms, this result suggests that movements in breakfast related prices explain a substantial portion of the variation in broader food inflation. Breakfast items, such as cereals, bread, dairy, and eggs, are purchased frequently and are highly visible to consumers, which makes their price movements closely aligned with overall food price dynamics. The trend lines of the two sets are shown in Exhibit 5.

Exhibit 5: Trend comparison between TruBfast-US with TruCPI-US Food



This strong relationship highlights the value of the Truflation Breakfast Index as a real time signal for food inflation trends. Because the index is constructed from high frequency price data and updated daily, it can capture changes in

food price pressures earlier than traditional monthly inflation measures. As a result, shifts in breakfast prices often serve as an early indicator of broader food inflation, making the index particularly useful for inflation monitoring, forecasting, and timely decision-making in environments where food prices are volatile and consumer sensitivity is high.

5. Truflation U.S. Breakfast Commodity Index Benefits

The Truflation U.S. Breakfast Commodity Index (TruBfast-US) is designed to provide a timely, transparent, and consumer-centric view of food inflation by tracking the cost of a representative breakfast through real-time market data.

- **Intuitive and Relatable Inflation Measure:** By tracking the cost of a typical breakfast, the index translates complex inflation dynamics into a simple, everyday experience, making food inflation easier to understand and communicate to non-technical audiences.
- **Early Inflation Signals from Commodity Markets:** The index links breakfast items to their underlying agricultural commodity inputs, allowing it to capture upstream price movements that often precede changes in retail food prices.
- **Real-Time and High-Frequency Data:** Using daily commodity pricing and real-time egg price data from the Truflation U.S. CPI Eggs Index, the Breakfast Index provides more timely insights than traditional monthly or quarterly inflation measures.
- **Consumer Focused Weighting:** The index is weighted using consumer expenditure data, ensuring it closely reflects actual household spending patterns and changes in the cost of living related to breakfast consumption.
- **Broad Relevance Across Demographics:** Given the high prevalence of breakfast consumption across age groups, genders, and ethnicities, the index represents a widely relevant consumption basket for U.S. households.
- **Actionable Insights for Multiple Stakeholders:** The index provides valuable signals for policymakers monitoring food affordability, businesses managing input cost risk, investors assessing inflation trends, and media organizations communicating economic conditions.

6. Summary

The Truflation U.S. Breakfast Commodity Index is a real time, consumer focused inflation indicator that measures changes in the cost of a representative U.S. breakfast by linking commonly consumed food and beverage items to their underlying commodity inputs. Built using daily prices for ten agricultural commodities and supplemented with egg prices from the Truflation U.S. CPI Eggs Index, the index captures early inflation signals from upstream markets while remaining closely aligned with actual consumer experiences. Component weights are based on consumer expenditure data ensuring the index reflects real world household spending patterns. By combining transparency, high-frequency data, and an intuitive consumption basket, the Truflation U.S. Breakfast Commodity Index provides a practical and accessible measure of food inflation that complements traditional inflation metrics.

7. Version History

Version	Date Released	Notes
1.0	November 27, 2025	Genesis of the Truflation U.S. Breakfast Commodity Index
2.0	February 6, 2026	Index rebalance, addition of TRUF Eggs index and Live Cattle & categorization