



Domestic Food Price Index

Overview

Market-level analyses are an important method of measuring food security and can serve many purposes, including estimating domestic supply against population requirements, evaluating market response to changes in supply or demand, and providing insight on the consumer prices of food versus those of other goods ([World Food Programme, 2009](#) [1]). The domestic food price index is one of several market-level indices included in Data4Diets, which also includes the [volatility of food prices](#) [2] and the [food affordability index](#) [3]. These indicators use consumer-level data to measure prices faced by consumers in food markets. Unlike the other indices mentioned, however, the domestic food price index is a metric that directly compares the price level of food to that of other goods. This indicator is considered an 'emerging indicator' because it has not been fully validated and is not in common use.

Method of Construction

Domestic food price indices can be calculated in a number of ways and can include a wide variety of food and non-food items. One index that has been calculated across many countries and years is the Domestic Food Price Index used by the Food and Agriculture Organization (FAO). Using a combination of data from the World Bank (WB), International Comparison Project (ICO), and the International Labor Organization (ILO), it is calculated as the ratio of food and non-food consumption to expenditure in purchasing power parity (PPP) terms, in order to account for inflation. (For a description of PPP, see [WB, 2006](#) [4].) This ratio is then forecasted and backcasted using two other standard consumer price indices (the Food Consumer Price Index and the General Consumer Price Index), and is normalized to the base year of 2011.

Further documentation on the construction and compilation of these data can be found in the FAO Food Security Indicators page in the Excel Workbook Sheet titled "V_2.5 Metadata" from the file, which can be [downloaded from FAO](#) [5]. For further information on the calculation of consumer food price indices based on other data sources, refer to "Chapter 9: Calculating consumer price indices in practice" of the ILO's Consumer Price Index Manual ([ILO, 2004](#) [6]).

Uses

Consumer food price indices are used by a variety of national labor and statistical agencies, as well as large international organizations such as FAO and ILO. One of the main uses of this indicator is to quantify change in consumer purchasing power over time due to inflation, and it can be standardized in order to allow for regional or international comparison ([ILO, 2004](#) [6]). Because this indicator is calculated based on a basket of food goods, other indicators, such as the volatility of food prices for specific foods, may be more appropriate if data are needed on particular food groups or individual commodities. This indicator is part of the [FAOSTAT Suite of Food Security Indicators](#) [7] and is published annually by FAO in the [State of Food Insecurity](#) [8] (SOFI).

Strengths and Weaknesses

One strength of this indicator is that its ease of comparability makes it conducive for understanding trends over time and place. Additionally, indices can be computed using a variety of food and non-food items depending on programmatic or research priorities. However, the major weakness of this indicator, as reported by FAO, is that it utilizes a standard set of food and non-food items, which may not be appropriate for all sociocultural contexts. In response, researchers have proposed using different items depending on the population of interest, differing based on poor and ultra-poor subgroups, as well as those living in urban versus rural areas ([USAID, 2013](#) [9]).

Data Source

Country-specific consumer food price indices are available from many national statistical agencies and from the [WFP's Vulnerability Analysis and Mapping](#) [10]. Annual calculations from FAO are also available on [FAOSTAT](#) [11].

Links to guidelines

- [International Labor Organization, \(2004\). "Consumer price index manual: Theory and practice."](#) [6]

// Link to case studies (for edit) update

Links to illustrative analyses

- [De Hoyos and Medvedev, \(2009\). "Poverty effects of higher food prices: A global perspective."](#) [12]

Food Security Dimensions

- [Stability](#) [14]

Data Collection Levels

- [Market](#) [15]

Data Sources and Methods

- [World Food Programme \(WFP\) Vulnerability Analysis and Mapping \(VAM\)](#)

Requires Food Composition Database

- [No](#) ^[16]

Please cite as: Data4Diets: Building Blocks for Diet-related Food Security Analysis, Version 2.0. (2023). Tufts University, Boston, MA. <https://index.nutrition.tufts.edu/data4diets>. Accessed on 28 September 2023.