

FAQ - Market Basket Definitions and General Information

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What is a CMS market basket?

Although “market basket” technically describes the mix of goods and services used in providing health care, this term is also commonly used to denote the input price index (that is, cost category weights and price proxies combined) derived from that market basket. Accordingly, the term “market basket” as used in this document refers to the various CMS input price indexes. A CMS market basket is described as a fixed-weight, Laspeyres-type index because it measures the change in price, over time, of the same mix of goods and services purchased in the base period.

How is a CMS market basket constructed?

A market basket is constructed in three steps. First, a base period is selected and total base period expenditures are estimated for a set of mutually exclusive and exhaustive spending categories, and the proportion that each category represents are calculated. These proportions are called “cost weights” or “expenditure weights”. Second, each expenditure category is matched to an appropriate price or wage variable, referred to as a “price proxy”. In almost every instance, these price proxies are derived from publicly available statistical series that are published on a consistent schedule (preferably at least on a quarterly basis). Finally, the expenditure weight for each cost category is multiplied by the level of its respective price proxy. The sum of these products (that is, the expenditure weights multiplied by their price index levels) for all cost categories yields the composite index level of the market basket in a given period. Repeating this step for other periods produces a series of market basket index levels over time. Dividing an index level for a given period by an index level for an earlier period produces a rate of growth in the input price index over that timeframe.

What are the CMS market baskets used for?

The CMS market baskets are used to update payments and cost limits in the various fee-for-service CMS payment systems. The CMS market baskets reflect input price inflation facing providers in the provision of medical services.

Who is responsible for producing the market baskets?

The Office of the Actuary (OACT), within the Centers for Medicare and Medicaid Services (CMS), is responsible for producing the CMS market baskets. CMS determines the cost weights and price proxies. IHS Global Inc., a nationally recognized economic forecasting firm with which CMS contracts, provides forecasts of the price proxies used in the market baskets as well as a forecast of total factor productivity. The market basket levels and percent changes are released quarterly, with each new forecast containing an additional quarter of historical data.

How are quantity and intensity effects held constant in the market baskets?

Due to the CMS market baskets being fixed-weight, Laspeyres-type indexes, they measure “pure” price changes only. Any changes in the quantity or mix of goods and services (that is, intensity) purchased over time are not measured. There are two major components of the market basket: cost weights and price proxies. Cost weights measure the mix (intensity), quantity, and prices of inputs used by a provider while the price proxies measure only the price change of the category being measured. Only

the price proxies are updated quarterly; the cost weights are held constant, thereby holding quantity and intensity effects constant. For example, a hospital hiring more nurses to accommodate the needs of patients would increase the quantity of labor purchased by the hospital, but would not be factored into the price change measured by a fixed-weight hospital market basket.

What happens when a market basket is rebased or revised?

Changes in quantity or mix of goods and services do eventually get incorporated into the market basket cost weights when it is rebased. Therefore, we rebase the market baskets periodically so that the cost weights reflect more recent purchases of goods and services used by providers to furnish medical care.

The terms “rebasings” and “revising,” while often used interchangeably, actually denote different activities. “Rebasings” means moving the base year for the structure of costs of an input price index. “Revising” means changing data sources or price proxies used in the input price index.

How often are the market baskets rebased?

Rebasing a market basket is mainly dependent upon data availability. Typically, a market basket is rebased every four to five years to coincide with the update of many secondary data sources, such as the benchmark input-output table data from the Bureau of Economic Analysis. We continually monitor the cost weights in the market baskets to ensure they are reflecting the mix of inputs used in providing services. We will update the weights more frequently than every four to five years if we believe it is warranted.

Is there a Medicare market basket?

No, CMS does not produce a “Medicare” market basket. Individual market baskets are produced for many of the fee-for-service payment systems as described below. This is to ensure that we are accurately measuring the cost structures and price changes facing each of these providers.

Where can I find detailed information on how each of the current CMS market baskets were constructed?

The current market baskets for each of the Prospective Payment Systems (PPSs) were proposed and finalized in rulemaking. Links to the PPS final rules published in the Federal Register that describe the development of the current market baskets can be found at the following link:

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareProgramRatesStats/MarketBasketResearch>

Are there separate market baskets for updating payments under the Outpatient PPS, Hospice PPS, or Ambulatory Surgical Center PPS?

No. The inpatient hospital market basket is currently used to update the payment rates for Outpatient PPS and Hospice PPS. Effective for CY 2019 to CY 2023, the inpatient hospital market basket is also used to update Ambulatory Surgical Center PPS payments.

How often are the market basket forecasts updated?

The forecasts of the CMS market baskets are updated on a quarterly basis. Each quarterly forecast is updated to reflect a revised economic outlook and to incorporate more recent historical data. The top-line levels and 4-quarter percent change moving averages of the market baskets, as well as detailed data underlying the top-line market basket forecasts, are available on the CMS website at the following link:

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareProgramRatesStats/MarketBasketData>. The quarterly forecasts are released on a lagged basis, meaning a given forecast is generally available three to four months after the preparation

of the forecast. Below is a tentative schedule for when each forecast is publicly available on the CMS website.

<u>Forecast</u>	<u>CMS Target Web Publication Date</u>
Q4	April 15
Q1	July 15
Q2	September 15
Q3	December 15

Do the quarterly levels and four-quarter percent change moving averages represent Calendar Year (CY) or Fiscal Year (FY) quarters?

The index levels and four-quarter percent change moving averages are reported on a CY basis. For example, the Q4 index level corresponds with October 1 through December 31 and the Q4 four-quarter moving average percent change reflects the CY growth rate. Therefore, for a FY update, the appropriate four-quarter percent change moving average would be the value provided for Q3 of that CY. The four-quarter percent change moving averages are calculated using more than ten decimal places.

How is a four-quarter percent change moving average calculated?

The easiest way to illustrate how a four-quarter percent change moving average is calculated is to use an example. For this example, we are calculating the four-quarter percent change moving average for the period ending 2021Q3, which represents the FY 2021 increase.

Step One - Calculate the four-quarter average of the levels

Average for 4-qtrrs ending in 2020Q3: $(1.036 + 1.043 + 1.046 + 1.052) / 4 = 1.044$

Average for 4-qtrrs ending in 2021Q3: $(1.057 + 1.070 + 1.081 + 1.095) / 4 = 1.076$

Step Two - Calculate the percent change between 2021Q3 and 2020Q3 four-quarter average index levels. The percent change between 2021Q3 and 2020Q3: $((1.076 / 1.044) - 1) * 100 = 3.0$ percent. This would be the four-quarter percent change moving average for the sample market basket for FY 2021. A similar calculation can be made for every quarter.

	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3
MB Level	1.036	1.043	1.046	1.052	1.057	1.070	1.081	1.095
Step 1: Average Level	Average 2019q4-2020q3			1.044	Average 2020q4-2021q3			1.076
	Step 2: Four-quarter percent change moving average $((1.076/1.044)-1)*100$							3.0

What is market basket forecast error?

The payment updates for many of the prospective payment systems are determined using a forecast of the market basket update, which reflects the latest available historical data at the time the final regulation is published. The actual market basket increase for a given period can be higher or lower than the forecasted increase available at the time a payment update is determined. The forecast error for a market basket update is calculated as the actual market basket increase for a given year, less the forecasted market basket increase. For example, in June 2021 we were required to forecast the market

basket increase for FY 2022. The actual change in the market basket for FY 2022 may be higher or lower than what we forecasted in June 2021 depending on market conditions. We acknowledge that setting the payment updates during times of economic uncertainty can often result in larger forecast errors in either direction; however, our expectation is that these forecast errors will generally average close to zero over a longer period of time.

Do any of the market baskets have a forecast error adjustment?

The Skilled Nursing Facility (SNF) market basket and Capital Input Price Index (CIPI) are the only market baskets with a forecast error adjustment. This forecast error adjustment is applied to the current payment update if the forecast error for the most historical year available exceeds a specific threshold in absolute terms (0.5 percentage point for SNF and 0.25 percentage point for CIPI).

How are malpractice premiums measured for physicians?

Each year, CMS solicits professional liability premium data for physicians from a sample of commercial carriers in order to construct a physician Professional Liability Insurance (PLI) index. This information is not collected through a survey form, but instead is requested from a few national commercial carriers via letter. The premiums for about 20 insurers are included in the sample and data are collected directly from carriers on a voluntary basis and supplemented with premium data from AM Best State Rate Filings. Our current methodology for calculating malpractice price changes reflects premium data for a fixed level of coverage (\$1 million per occurrence/\$3 million per annual) by physician specialty (risk class) in each state. Data is aggregated to a national level based on counts of physicians by specialty in each state (AMA data) and the market share of each insurer by state. The change in the national malpractice index levels from year to year represents the percent change in the category for a given year.

What is the productivity adjustment and how is it derived?

The productivity adjustment is applied as a reduction to the market basket updates for a given year for select PPSs. Section 1886(b)(3)(B)(xi)(II) of the Social Security Act, as added by section 3401(a) of the Affordable Care Act, defines the productivity adjustment as equal to the 10-year moving average of changes in annual economy-wide, private nonfarm business multifactor productivity (MFP) (as projected by the Secretary for the 10-year period ending with the applicable fiscal year, calendar year, cost reporting period, or other annual period). The U.S. Department of Labor's Bureau of Labor Statistics (BLS) publishes the official measures of productivity for the U.S. economy. We note that previously the productivity measure referenced in section 1886(b)(3)(B)(xi)(II) was published by BLS as private nonfarm business multifactor productivity. Beginning with the November 18, 2021 release of productivity data, BLS replaced the term MFP with total factor productivity (TFP). BLS noted that this is a change in terminology only and will not affect the data or methodology. As a result of the BLS name change, the productivity measure referenced in section 1886(b)(3)(B)(xi)(II) is now published by BLS as private nonfarm business total factor productivity; however, as mentioned previously, the data and methods are unchanged. Please see www.bls.gov for the BLS historical published TFP data. A complete description of IHS Global Inc.'s TFP projection methodology is available on the CMS website at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareProgramRatesStats/MarketBasketResearch>.