

Module 8: Gross Fixed Capital Formation

Training Workshop on Price Statistics for the Production of Purchasing Power Parities and the
Integration between CPI and PPPs in the Arab Region

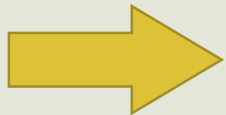
07-08 June 2021

Objectives of Section 3: Price and Other Related Data for PPPs

Data Collection Approaches for:

Household Individual Consumption

Government Consumption



Gross Fixed Capital Formation

Objectives of Module 8: Gross Fixed Capital Formation



Definition of Gross Fixed Capital Formation



Machinery and Equipment Price Survey



Construction and Civil Engineering Price Survey



Gross Fixed Capital Formation

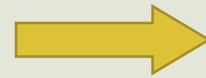
Gross Fixed Capital Formation refers to the net increase in physical assets within the measurement period.

Gross Fixed Capital Formation does not account for the consumption or depreciation of fixed capital and does not include land purchases.

➔ Gross Fixed Capital Formation *(cont'd)*

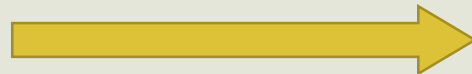
In the ICP classification, there are 3 *Groups* under the **Gross Fixed Capital Formation** *category*:

1. Machinery and Equipment



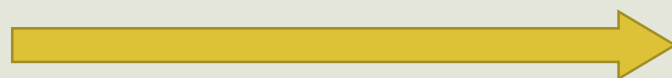
covered by the **Machinery and Equipment survey**

2. Other Products



covered by the **Machinery and Equipment survey**, but considered a reference basic heading

3. Construction



covered by the **Construction and Civil Engineering survey**



Machinery and Equipment Price Survey

The machinery survey covers:

2 Groups

3 Classes

7 Basic Headings

The **ICP Price Survey** covers **6 Basic Headings** out of **7** in total, excluding the “Other Transport Equipment” Basic Heading.

Group	Machinery and Equipment	Other Products
Class	Metal Products and Equipment	Transport Equipment
Basic Heading	Fabricated Metal Products, Except Machinery and Equipment	Road Transport Equipment
	Electrical and Optical Equipment	Other Transport Equipment
	General Purpose Machinery	Not covered in the ICP price survey
	Special Purpose Machinery	



Machinery and Equipment Price Survey

(cont'd)

Pricing Machinery and Equipment Items

- For the **Machinery and Equipment Survey**, countries are asked to collect prices for *identical or very similar products*.
- This approach is sometimes referred to as specification pricing.

- There are *2 types of items*:
 1. **Specified Type**
 2. **Unspecified Type**



Machinery and Equipment Price Survey

(cont'd)

Pricing Machinery and Equipment Items

1. Specified Type

where an **exact brand and model**, in addition to a **detailed description of the product** to be priced are provided.

2. Unspecified Type

where **detailed specifications** are provided, however, **without specifying a brand and model** to be priced.

National annual average prices are required for the reference year. However, mid-year prices can be regarded as annual averages.



Machinery and Equipment Price Survey

(cont'd)

Price Information

Price Information

Prices are obtained directly from producers, importers, distributors, or from catalogues.

Method of price collection can be personal visit, telephone, letter, internet, or a combination.

Significant proportion of equipment goods in some countries consists of imports of second-hand goods, however, only new goods are priced under the ICP price survey.



Machinery and Equipment Price Survey in the Arab Region

In the Arab region, to ensure accurate comparisons, we went an extra mile and provided brands and models for unspecified items based on availability and popularity in the region.

Moreover, additional region-specific items are also included under the different basic headings after extensive research.

Finally, ESCWA is developing an innovative Harmonized Machinery and Equipment Price Index (H-MEPI); therefore, in order to ensure overlap pricing for at least 1 year for the index computation, the regional M&E survey also includes previous M&E items from the 2017 item list.

Construction and Civil Engineering Survey

Construction and Civil Engineering Survey Coverage

The Construction And Civil Engineering Survey covers:

1 Group

3 Classes

3 Basic Headings

One set of prices and other information is collected to estimate PPPs for all **3 Basic Headings**

Group	Construction		
Class	Residential Buildings	Non-residential Buildings	Civil Engineering Works
Basic Heading	Residential Buildings	Non-residential Buildings	Civil Engineering Works

One set of prices and other information is collected to estimate PPPs for all three basic headings.



Construction and Civil Engineering Survey *(cont'd)*

The estimation of construction PPPs is based on an **Input-Approach**, where countries price *3 types of construction inputs*:

1. Material Inputs

2. Equipment Hire
Inputs

3. Labor Inputs

These three types of inputs (or sub-headings) are subsequently weighted based on resource mix weights for a typical construction project under each Basic Heading.

Construction and Civil Engineering Survey (cont'd)

Resource Mix Requirements

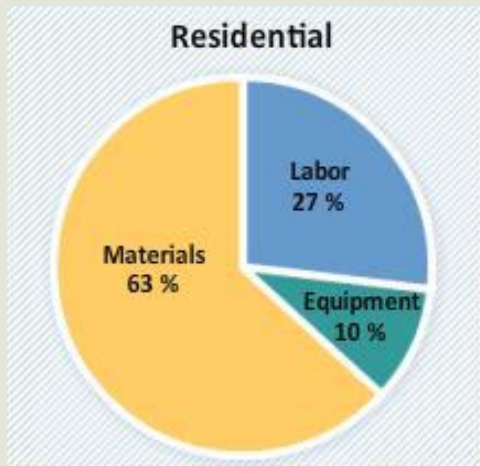
The resource mix weights are needed to correctly weight the input categories under each **Basic Heading**, namely:

Residential

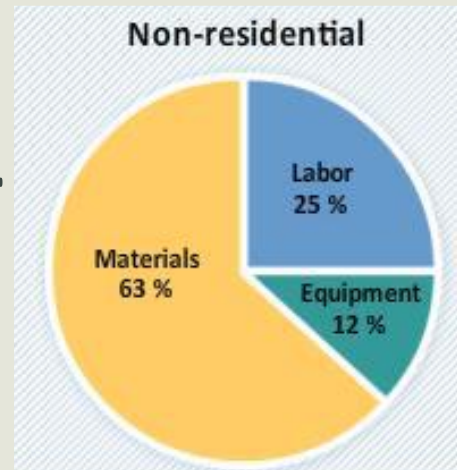
Non-Residential

Civil Engineering

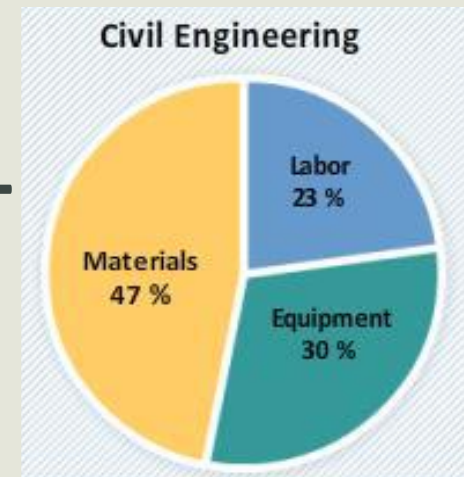
Example



Example



Example



Quiz Time

- Answer by TRUE or FALSE:
- Resource mixes are the same for Residential and Non-Residential buildings in the same country.
- Resource mix for Residential buildings is the same for all the countries.
- Resource mix for Civil Engineering is the same for all the countries.

The background is a dark green chalkboard with various white chalk sketches. On the left, there is a globe showing continents. Above it are a pair of scissors and a ruler. In the top left corner, there are two circular diagrams. On the right side, there is a detailed drawing of a microscope. At the bottom, there are several rectangular shapes, possibly representing books or papers. The central area of the image is a solid light green rectangle containing the text.

Thank You