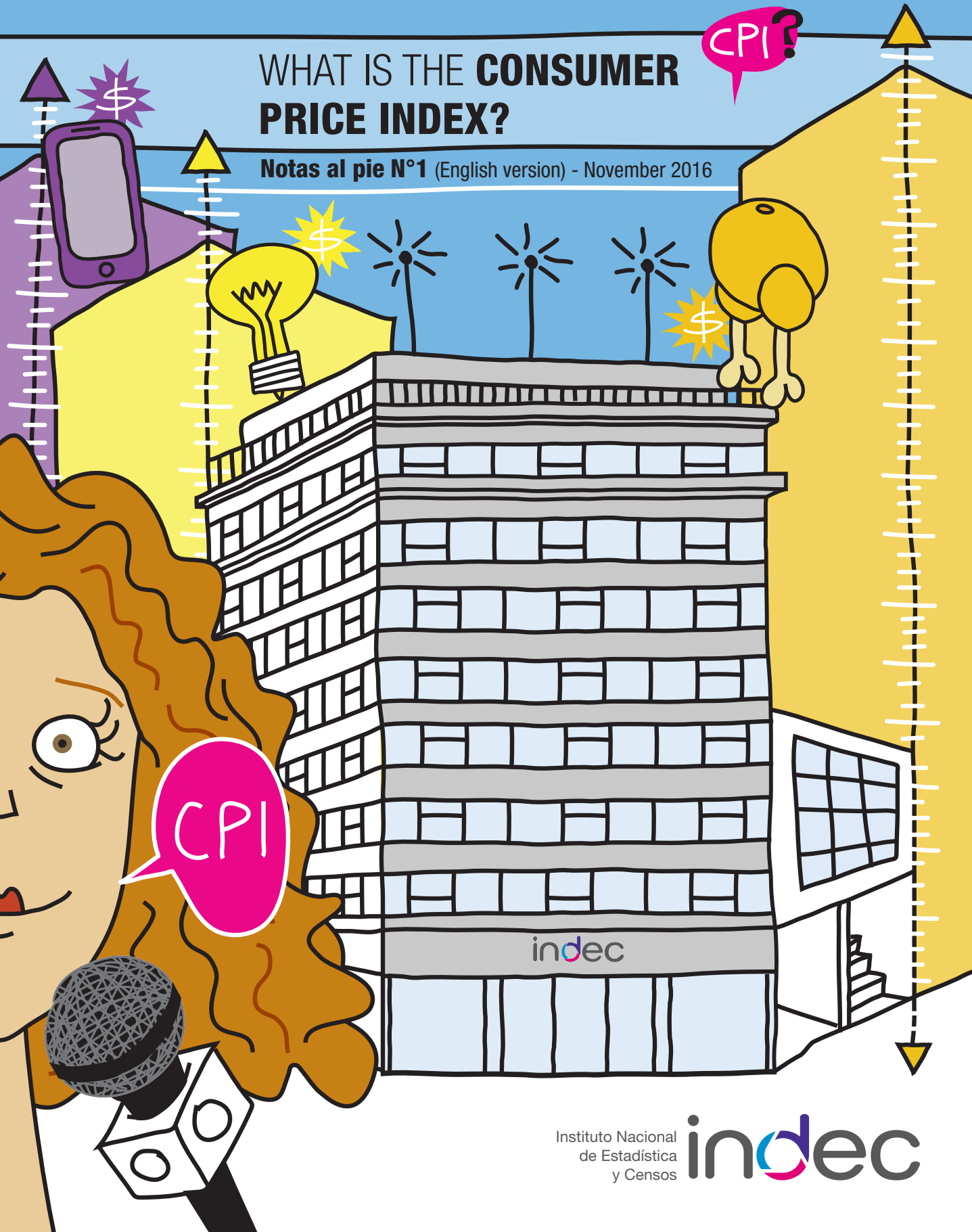


# WHAT IS THE **CONSUMER PRICE INDEX**?

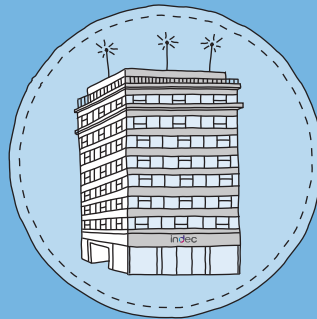
CPI?

Notas al pie N°1 (English version) - November 2016



Instituto Nacional  
de Estadística  
y Censos

**indec**



## What is the Consumer Price Index?

Notas al pie N°1 (English version) - November 2016

Instituto Nacional de Estadística y Censos (INDEC)

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EVERYONE TALKS ABOUT

**CPI**

BUT... **WHAT IS IT?**



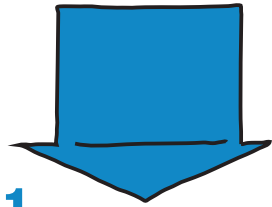
**What is the Consumer Price Index?**

Every day, we use words that, until recently, were only used by specialists in Economics. Many technical terms have been incorporated

by the media and our own speech, such as inflation, CPI and cost of living. They are even used as synonyms, but they are not.

# DEFINITION

The Consumer Price Index is an indicator that measures the average evolution of prices of a set of goods and services, which represent the consumption expense of residential households of a certain area.



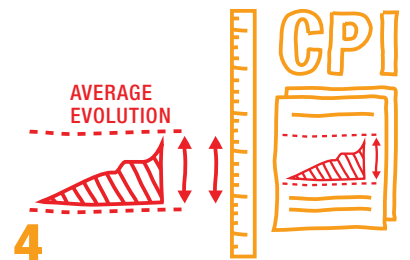
## 1 HOUSEHOLD SURVEY OF THE CHOSEN AREA

The INDEC performs a survey of a representative group of households to learn about their consumption.



## 2 GOODS AND SERVICES BASKET

With the information obtained during the interviews, the list of articles that conform the "CPI Basket" is put together.



## 4 MONTHLY PRICE MONITORING AND COMPARISON TO CALCULATE CHANGES OVER TIME



## 3 PRICE COLLECTING

Every month, price collectors visit stores to gather the prices of the goods and services of the basket.

# ARE ALL BASKETS ALIKE?

When we speak of “basket” in our everyday lives, we think of the set of articles that are usually bought in a household. But, since not all households buy exactly the same articles in the same quantities, it would be impossible to measure the basket for each household to

study the expense of all households. So, for example, those households which have members in school will have more expenses related to education, while other households with only working adult members will have different expenses.



## REPRESENTATION OF HOUSEHOLD EXPENDITURE

If the different homes consume according to their composition, then how do we define a basket in which the consumption of all households are represented?

**45,326**  
REPRESENTATIVE HOUSEHOLDS

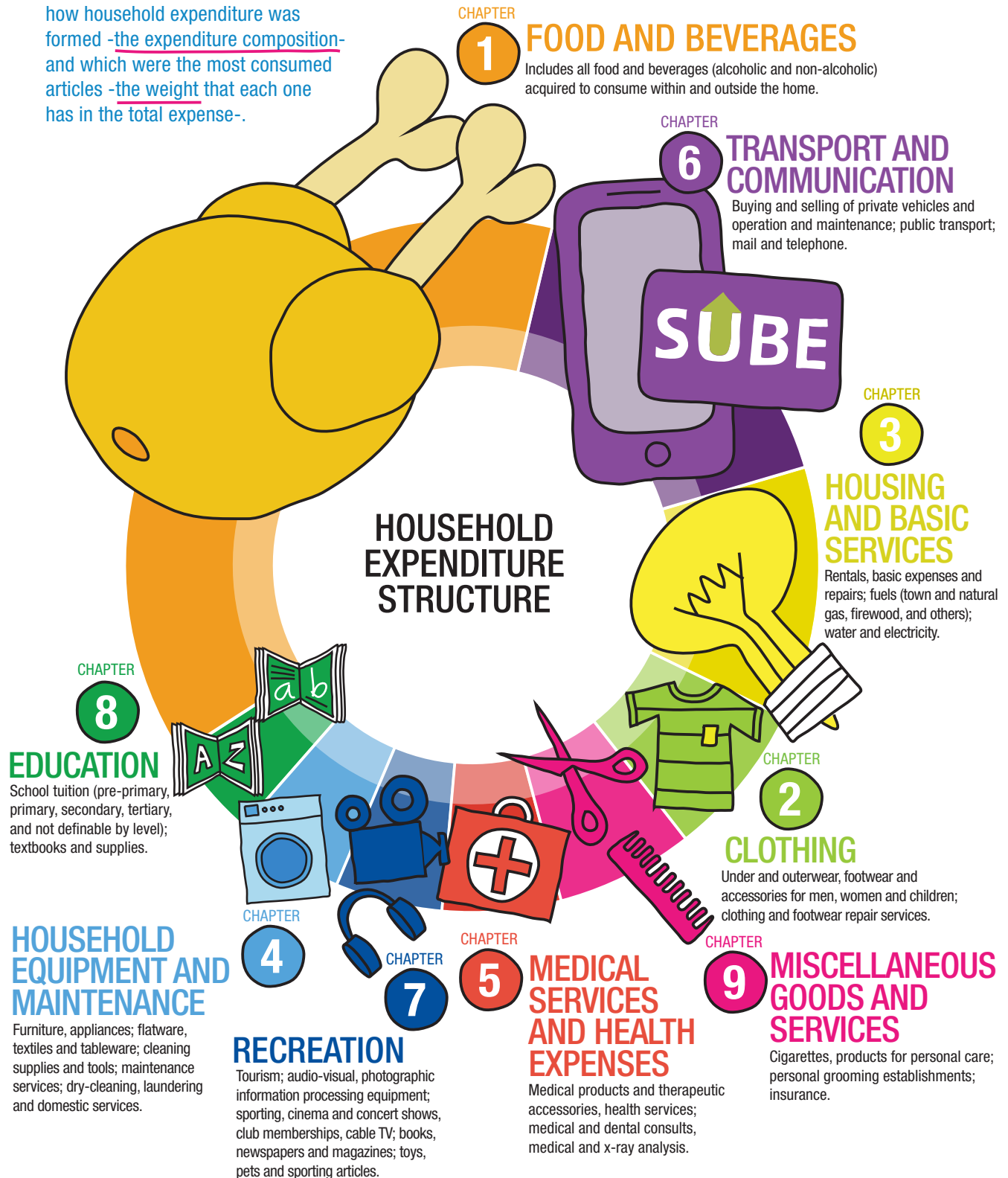


National Household Expenditure Survey (ENGH) 2004-2005

The CPI GBA is developed based on the National Household Expenditure Survey (ENGH) 2004-2005. This survey, which was done in the whole country between October 2005 and December 2005, consulted the consumption and income of 45,326 representative households selected using statistical methods.

## STEP 1.3 - HOUSEHOLD EXPENDITURE STRUCTURE

The ENGH provided information on how household expenditure was formed -the expenditure composition- and which were the most consumed articles -the weight that each one has in the total expense-.







# Price Monitoring Routine

Every business day of each month, price collectors gather the prices for the goods and services that make up the CPI Basket.



QUESTIONNAIRE



OFFICES



TELEPHONE



Once the representative basket for the household consumption is determined, the first price measurement is the “base” for the index.



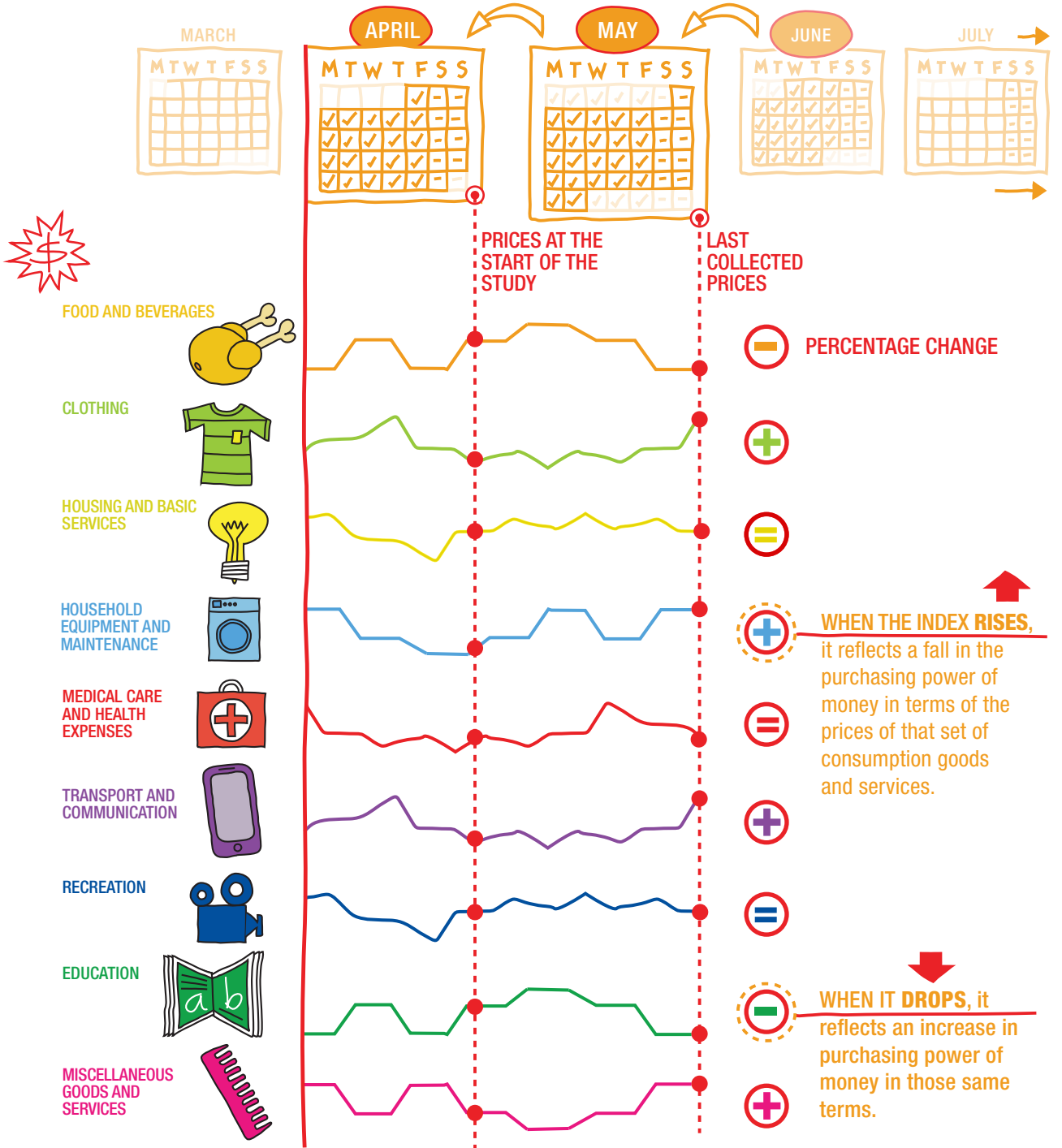
**PRICES AT THE BEGINNING OF THE STUDY**  
BASE PRICES FOR THE INDEX



**BASE MONTH FOR THE INDEX**

# Calculation of Price Change

Once the reference period -base for the index- is obtained, prices of the goods and services that make up the CPI Basket are still monitored every month and their evolution in time is observed. Each product is compared every month; and an index number is obtained from its changes from the base period.

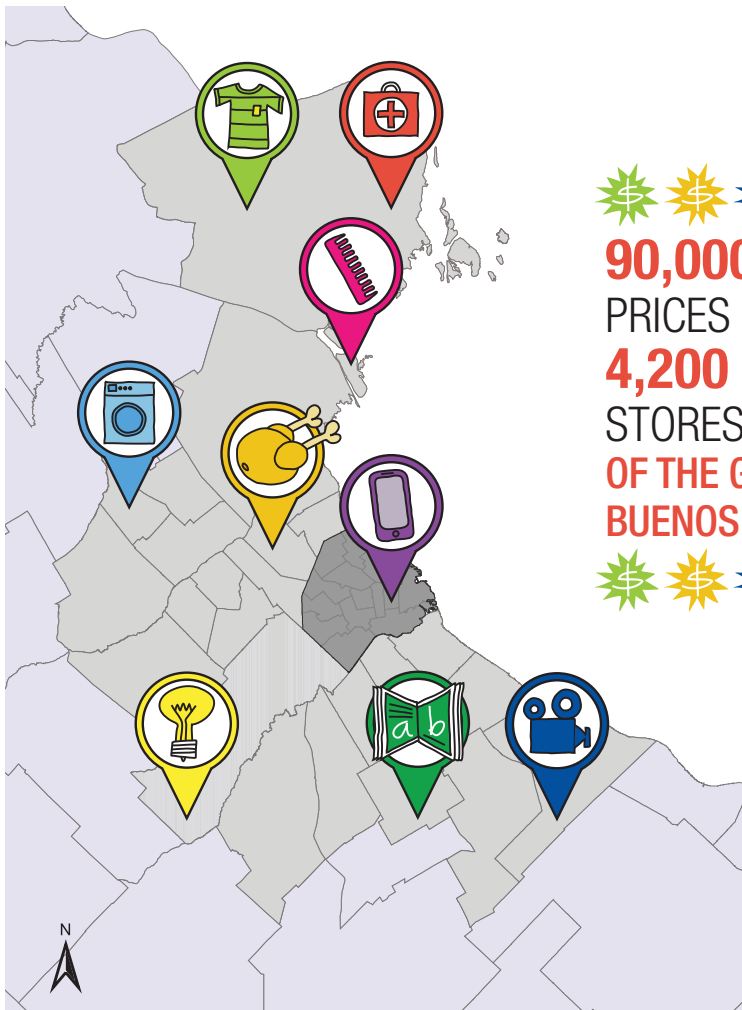


## SOME POSSIBLE DOUBTS

### How many prices are collected? Where? How?

The INDEC price collectors make visits every business day and collect each month about 90,000 prices of the basket varieties from around 4,200 stores. Monitoring is performed in small stores, supermarkets, self-service shops and markets located in neighborhoods and shopping centers of the Autonomous City of Buenos Aires and 24 districts of the Greater Buenos Aires area. These stores were selected taking into account the type of businesses in which the surveyed households purchased their products.

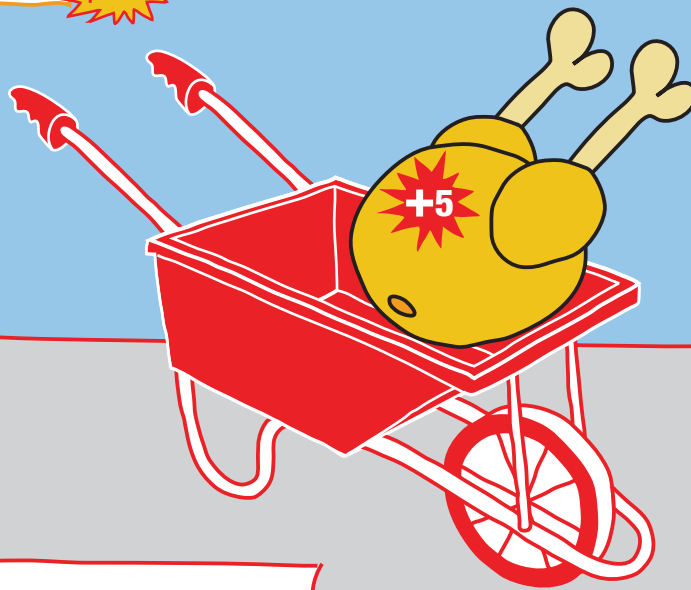
There is a small group of prices that, for different reasons, are not collected using the store visitation system but are obtained through special operations (from the INDEC offices) by consulting tariff charts or information provided by regulatory bodies or other institutions, or through telephone or email consultation. For example, rates for public services and transport, education, prepaid medicine, etc.



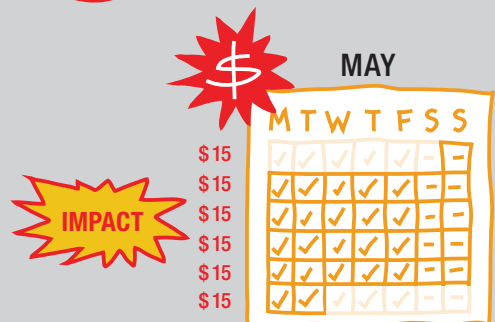
**What is the difference between the price increases during the beginning of the month and those occurring at the end of the month?**

The price increases during the first days of the month weigh more in the index for that month than the ones produced during the last days. That is, if the price for a variety of the basket increases on the 5<sup>th</sup>, the new price will be paid for the next 25 days of the month. However, if a variety price increases on the 27<sup>th</sup>, it will only weigh on the expenses for that month during 3 days.

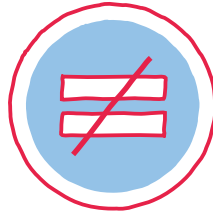
This can sometimes lead to some confusion: it is believed that price increases for the last days of the month are not taken into account for the CPI of that month. This is not so, since the index considers the price variations for every day of the month. What actually occurs with end-of-the-month increases is that they do not weigh too much within the expenses for that month, but they will for the next month. This is what is called the price “bandwagon effect” in the statistical jargon.



**ALTHOUGH THE INCREASE WAS PRODUCED IN APRIL, THE STRONG IMPACT WILL BE FELT IN MAY**



# CONSUMER PRICE INDEX (CPI)



## COST OF LIVING

There is still some confusion between “Consumer Price Index” (CPI) and Cost of Living.

When the INDEC announces that there has been a certain percentage increase in the prices of a set of goods and services, the consumer might perceive that “the number does not reflect reality”. It would actually be strange for it to coincide with the expense of one particular household, since it shows an expense average of the set of households. We must take into account how that percentage is calculated.

- 1** If it is informed that, for instance, there has been an increase in “Meats”, we must consider that this group is formed by five subgroups: “Beef”, “Other Fresh Red Meat”, “Poultry”, “Fish and Seafood” and “Other Preserved and Processed Meat”. In reality, “Beef” weighs more within the family expenditure than the rest of the varieties. This weight within the expenditure is considered in the Consumer Price Index, which means that a price increase in “Other Preserved and Processed Meat” will have less of an impact than an increase in beef, since it is consumed less. The same situation occurs within each CPI Basket group.
- 2** Another point to consider when observing the increase of each group of the basket is that the index takes into account price changes for each variety of that group and makes an average. Thus, the prices for some varieties might have increased a lot, while others stay the same and others are reduced (as it sometimes happens with seasonal fruit).
- 3** The CPI also takes into account the day of the month in which the price change is produced. In this way, if we have paid 5% more for meat in the last days of the month and we read that the increase has been of 3%, we may feel that the report is untrue because we forget that an increase in the last days of the month will be reflected more in the next month than the current one, as we have explained above.
- 4** For the CPI calculations, the INDEC consults different zones and different stores (groceries, supermarkets, hypermarkets, self-service centers, shopping centers, etc.), which offer the same varieties at different prices, and uses an average of them for the calculation, giving each store the corresponding importance according to sales volume.

It is easy to understand that the four analyzed points will have an influence on the manifestations of consumers on INDEC reports:

- ?** “What do you mean 3% meat increase if I paid 10% more for ham?” → Does not consider the low weight of that variety within the group.
- ?** “A 15% increase for vegetables? How? I paid 50% more for onions!” → Does not consider the average within that group, in which, for example, string bean prices were reduced by 20%
- ?** “2% CPI increase for beverages? I paid 4% more for juice yesterday!” → Does not consider that, if it is the end of the month, yesterday's price will be noticed more in the CPI for next month.
- ?** “No increase for canned tomatoes? I paid 10% more at the grocery!” → Does not consider the different prices for each variety in different stores.

## THE CPI BASKET IS NOT THE FOOD BASKET

A common error is to confuse the CPI Basket with the Food Basket, but the latter is just a part of the former. Thus, it is easy to form a false idea and believe that the CPI basket prices are increased just as much as the food prices. In this sense, it is common to hear consumers complain about a price increase during the last month and quickly conclude that that increase corresponds to all prices for that period.

## CPI IS NOT COST OF LIVING

It is frequently believed that the Consumer Price Index measures Cost of Living and its changes over time. Many times, to maintain a certain standard of living the consumer may change his or her consumption. Thus, for example, a household that consumes 10 kg of meat every month can change the amount of this food (consume less fish or beef and more poultry or pork) according to the evolution of the price of each type of meat. Another easily identifiable example is the reduction of some types of consumption (for example, clothing), which can be compensated by the access to other goods (for example, recreation, education), thus maintaining a certain standard of living.

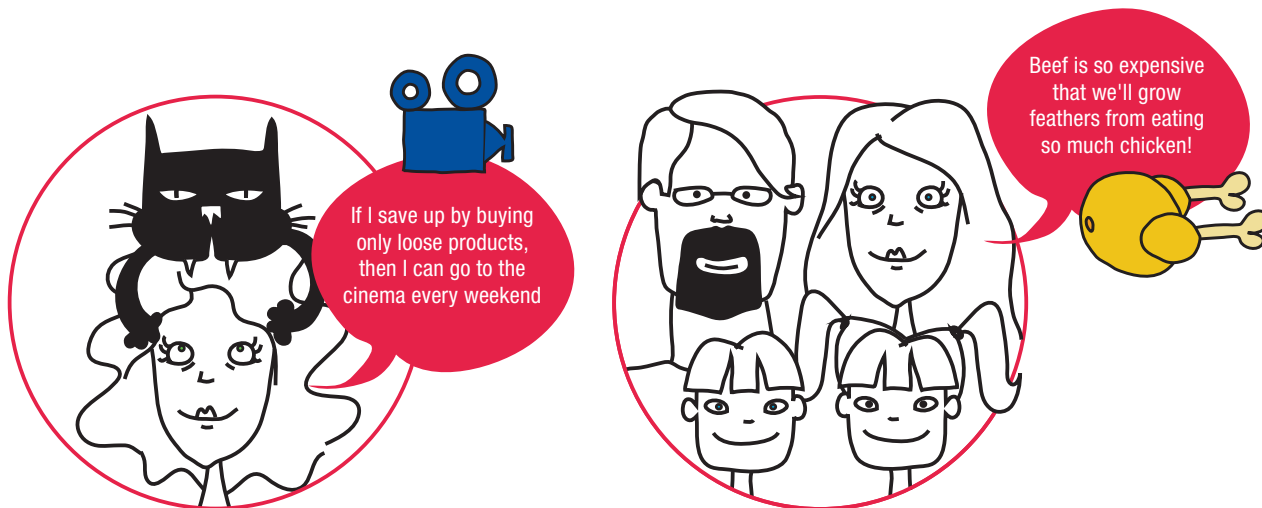
The “cost of living” contains, therefore, subjective elements that arise from the way the consumer changes, in time, his or her personal consumption basket, seeking a better satisfaction of personal needs. On the contrary, the Consumer Price Index measures a basket fixed in time that does not vary according to subjective needs.

Therefore, we see that while the Consumer Price Index measures the changes in prices of the same quantities of the same goods and services, the cost of living index will measure the changes in the cost of maintaining the same standard of living.

We answer the question that the consumer might have, “Why isn't the cost of living calculated?”, by saying that there is no practical possibility of knowing in an immediate and permanent way these three facts that can be produced simultaneously:

- a) The changes in the quantities consumed.
- b) The price changes of consumption goods.
- c) The changes in the preferences and possibilities of consumers.

For this reason, all countries produce only the Consumer Price Index.

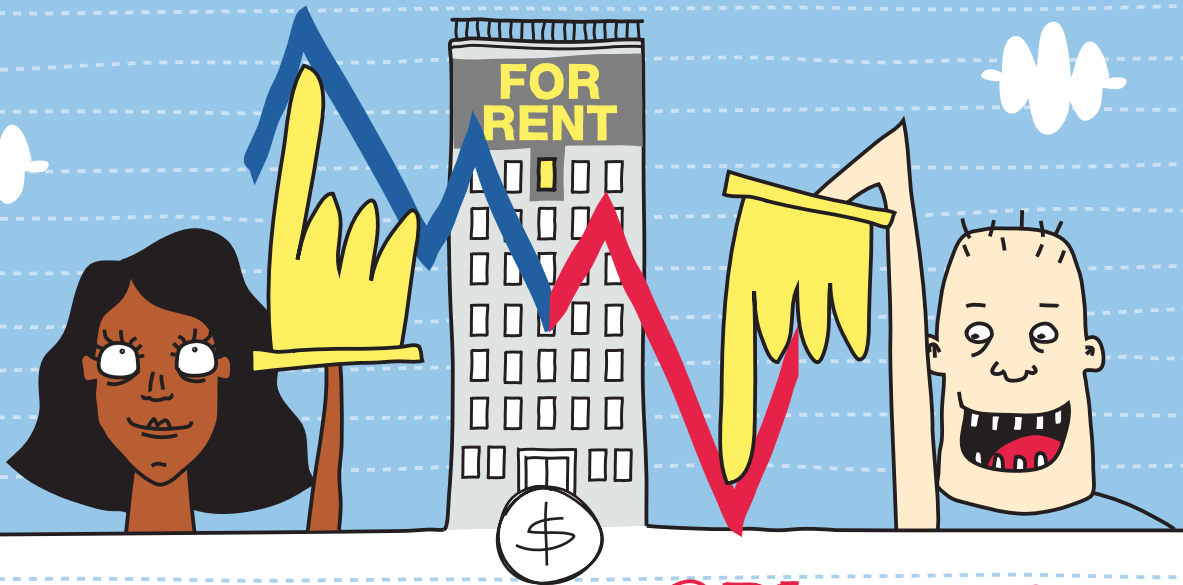


The citizens consult this index to look for information that will serve to make daily decisions regarding their income, property and consumption. Additionally, each sector or person will perceive the price increases according to their own interests.

### THE LANDLORD

will want the CPI to go “up” in order to adjust the amount to charge more for rent.

CPI



CPI

### THE TENANTS

will want the CPI to go “down” so as not to be affected if they feel that the rent price does not reflect the CPI.

This is the reason why, given the great variety of interests that make up our society, the State is the only institution capable of providing an impartial indicator that can be used equally by all citizens. Besides, the production of the index requires the use of

internationally accepted and standardized procedures. These large-scale measurement techniques require a great number of human and financial resources, which is why only the State can take this responsibility.



ARGENTINA  
200 AÑOS DE  
INDEPENDENCIA