



DATI ALLA MANO

I PODCAST

WHAT IS USEFUL TO KNOW ABOUT INFLATION

For advertising, it is what slaps us in the face and pushes us to save money when we make consumer choices. For macroeconomic parameters, it is something that must exist but must be kept within certain limits. For us citizens, inflation is that thing that makes us fear for the purchasing power of our salaries... but what exactly is inflation? I am Cristiana Conti and this is Dati alla mano (Data at Hand), a podcast by Istat, the National Institute of Statistics, where I work in the Directorate for Communication, Information, and Services to Citizens and Users. This initiative is part of a broader project to promote statistical culture.

In this episode, we will try to focus on what we need to know about inflation: we will try to understand, above all, what it represents, why and how it is measured, how much and why it can differ from our individual perceptions of price trends.

It is one of the most discussed topics. But what exactly is inflation? It is the variation in prices or, to be more specific, the increase in prices. Because if prices were to decrease, we would be talking about deflation, which to an untrained eye might seem like a good thing: if what I need or want to buy costs less, I can buy more, and my salary is worth more. Everyone satisfied, right? Unfortunately, it is not that simple, given that economists remind us that 'if high inflation is a problem, deflation is a disaster'. But why? The issue is not simple and involves economics with a capital 'E'. A moderate and constant growth in prices is a sign of a healthy economic environment, it means growth and employment prospects. Do you remember the Maastricht criteria? Among the different values to monitor to maintain the convergence of the economies of the Union countries, inflation was expected to be below 2 percent. Moderate, indeed, but still inflation, meaning rising prices. When prices decrease, however, businesses suffer, and employment is affected. I know, it's counterintuitive. As consumers, price growth seems like a bad thing, but if all economists agree on this model for our Western civilisations, we have no choice but to accept it as a given.

There's another counterintuitive issue: when it's said that inflation is falling, it doesn't mean that prices are decreasing, but that their growth rate is slowing down. Let me give an example: if in one month inflation is 3% and in the following month it's 1.5%, it means that the overall prices increased by 3% in the first month and then by 1.5% the month after. Be careful not to get confused. Just as it's useful not to confuse price variation with the level of prices. In other words, saying that inflation in Naples is higher than in Rome doesn't mean that prices in Naples are higher, but that in that month, prices in Naples grew more than in Rome. Is that clear?

And then there's the consumer price basket, another interesting element. The basket is that set of goods and services representative of the consumption of the entire national community whose prices are monitored every month. Consider that the first basket dates back to 1928, two years after the birth of Istat. Of course, the products monitored at that time were far fewer and grouped into five expenditure items: food, clothing, housing, heating, and lighting

and further expenses. Today we have 12 items, just to give you an idea, and the basket is updated every year to reflect changes in spending habits.

So, we are back to these days and get to the heart of the matter: how do we arrive at that number that tells us every month how consumer prices vary? We ask a super Istat expert: Alessandro Brunetti.

Cristiana: Hello Alessandro and welcome.

Alessandro: Thank you and hello everyone.

C. Measuring inflation, quite a task, would you like to tell us how it works?

A. It's a long story... just consider that to get to the summary data, the individual prices surveyed are tens of millions every month.

C. But that's an enormous amount! How do you survey so many? Who physically goes to check how much the prices of the same products have changed each month?

A. I told you it's a long story... so, let's start with the price basket and what is in it.

C. We said that the price basket is a set of goods and services that represent household consumption expenditure in Italy.

A. Exactly, and for 2024 the basket includes almost 1900 products and services, and these are the products and services for which we must survey price changes every month. This happens in all regions of Italy.

C. But if there are more or less 1900 products, how do you get to millions of quotations as you said before?

A. Because the survey takes place nationwide in 44,000 commercial activities, large and small, and local markets. We also need to add companies and institutions for certain services. Furthermore, we have data acquired through scanners from approximately 4300 supermarkets, superstores, discount and similar stores – so we are talking about large-scale retail and products with their prices recognised via barcode – and these alone account for approximately 33 million quotations.

C. Indeed, it seems a huge task, but apart from the scanner data, who physically goes to markets and shops to verify price changes?

A. The survey at commercial activities in the territory is carried out by staff from the municipal statistics offices. Each office sends us the surveyed quotations every month. Then there is Istat, that directly survey the product prices that are sold at uniform prices throughout the national territory, for example, medicinal products, and we also directly survey the prices of goods that are constantly evolving and make it more complicated to understand their dynamics, for example, technological products. Then we have administrative sources to survey the prices of fuels, tobacco, rents... in short, the work carried out centrally by Istat is structured and complex.

C. I have two immediate questions for you: the first is how do you ensure that the municipal statistics offices survey product prices uniformly among themselves?

A. In this way: at the beginning of each year, we send the offices the list of products to survey, and for each one, we provide all the necessary information to identify them correctly: for example, for clothing, we specify the model and fabric... it is then the surveyor's responsibility to identify, for each product, at each survey point, the best-selling one among those that have the characteristics we have defined. After that, the price of that same product, month after month, is monitored for a whole year and sent to us. For each product, we receive at least 5 quotations from each office.

C. Moving on to the second question: can you give me an example of a technological product that evolves and whose price dynamics are difficult to understand?

A. For example, a smartphone. If you buy it today, you pay a specific price, in six months that same phone might cost much less because a more powerful model has been released in the meantime. But this complicates the estimation of price changes.

C. I understand, but how do you resolve the issue?

A. This is where statistical expertise and specific knowledge of the sector and its changes come into play. In short, we leverage a professionalism that we continue to refine.

C. It sounds like a continuous adaptation process.

A. Yes, and not just in these cases.

C. What do you mean?

A. I was thinking about the pandemic period, suddenly the spending structure of households changed, and we had to adapt so that the inflation data reflected these changes. For example, face masks, both surgical and FFP2, and antigen tests were added to the basket. But if you ask me, this is just the obvious part, we had to recalibrate everything. Or think about when electricity bonuses were introduced and we immediately had to assess their impact on household expenditure.

C. By the way, can the weights of the different expenditure items change?

A. Sure, to reflect the actual burden on overall household expenditure.

C. But shall we mention these famous 12 expenditure items?

A. Ok, this is the list: Food and non-alcoholic beverages; Alcoholic beverages and tobacco; Clothing and footwear; Housing, water, electricity and fuels; Furniture, household equipment and services; Health services and expenditure; Transport; Communications; Recreation, entertainment and culture; Education; Accommodation services and restaurants; other goods and services.

C. Within these divisions there are then the 'aggregates' and 'elementary products', up to the famous 1900, right?

A. Yes. We follow the European (e)COICOP classification, a tool that covers the entire consumption universe. The classification identifies expenditure aggregates, or the expenditure made for product groups and as we go down through the stratification, we find increasingly specific subsets.

C. For example?

A. Let's take the 'clothing and footwear' item, which is divided into two groups. We choose the 'clothing' group and then we check through the 'classes' of this group. In this case there are 3 classes, namely 'garments', 'other wearing apparel and accessories for clothing' and 'laundry, repair and hire of clothing services'. At this point in the 'garment' class, we can select the 'subclasses', such as the 'women's garments' subclass. Here we will find different segments such as 'women's coats, jackets and blazers', up to the product aggregate 'women's jackets'. In some cases, these products can be further broken down into more specific and homogeneous items, which are the elementary products.

C. And how does it work for seasonal products?

A. In cases where there is clear seasonality, as also stipulated by the European regulation, we define survey calendars to record the prices of certain products during the period when people actually buy them. To be clear, we do not record the price of coats in August.

C. Could you explain why we have three different consumer price indices?

A. Well, the NIC is the index that measures national inflation, the FOI is the index for blue-collar and white-collar worker households and is what we use for monetary revaluations.

C. To adjust rents, for example, right?

A. Correct. The difference between NIC and FOI is the population they refer to: NIC is the index for the present population, including residents and non-residents, such as foreigners on holiday in our country, and it is calculated based on expenditure made within the territory. FOI is calculated on the resident population with reference to the expenditure of blue-collar and white-collar worker households. The basket they are based on, however, is the same.

C. And then there is the harmonised European index, the one we transmit to Eurostat...

A. Yes, and it is the HICP (Harmonized Index of Consumer Prices) that we calculate to ensure a measure of inflation comparable with that of other EU countries. Eurostat then uses the indices of all countries to produce a synthetic index for the entire euro area.

C. How do NIC and HICP differ?

A. The NIC refers to the value of the good consumed. This does not apply to the HICP, which records what is actually paid by the consumer. The typical example is medicines, a portion of whose price is paid by the NHS. The NIC index records the variation in the full price of the medicine, while the HICP detects what the consumer really pays. The HICP also takes into account sales and discounts in general.

C. But I was wondering: how do you harmonise a basket of goods referring to countries with different consumption habits?

A. You do not harmonise the basket. Harmonisation is done on the rules, on the methods. Take seasonality, for example, it is a rule that applies to all European countries. The same applies to burdens. Moreover, when we go down to the product aggregate level, there are also differences at the provincial level. The product type is identical, the product itself can be different depending on consumption habits... I am thinking of food, for example.

C. Now I have a key question for you: regarding price increases, consumers sometimes have very different perceptions compared to the inflation data that Istat publishes every month. Why is that?

A. The issue – you're right – is crucial. And to answer, I need to make a preliminary remark: the inflation data is one of those indicators that help understand the general economic picture. Just like the data for gross domestic product, employment, industrial production... in short, inflation, along with other indicators, helps us understand how Italy is doing.

C. So, basically, it has this purpose.

A. Yes, and that's why at the end of the month we provide a first estimate of inflation, then we give the definitive data in the middle of the following month. Timeliness is important precisely to understand as soon as possible what the situation is. And the basket reflects the country's consumption as a whole. Then, it's clear that each of us has our own purchasing habits.

C. The personal basket, we could say.

A. Exactly. And we cannot say that our personal basket completely reflects the 'general' one.

C. And from this point, individual perceptions arise, right?.

A. Yes, but we can reassure citizens that the data production process is scientifically based, which complies with European regulations and undergoes checks and controls at both local and central levels.

C. I would say let's conclude with this reassurance to citizens. Thank you, Alessandro, and all the best with your work.

A. Thank you and goodbye.

We have understood that inflation is one of the elements that help us understand the trend of the economy, and that monitoring it is a complex task involving many people across the national territory. We know that the data production process respects rules shared in Europe, and we also know that our spending habits can give us different perceptions regarding price trends.

I am Cristiana Conti, and this was Dati alla mano (Data at Hand), a podcast from the National Institute of Statistics. This episode was produced with the support of Storielibere.fm. Continue to follow us on the Dati alla mano (Data at Hand) section of Istat.it and on your favourite listening app. Are there topics you would like to explore further? Write to me at datiallamano@istat.it.

Alessandro Brunetti, Manuela Morricone, and Manuela Bartolotta worked on this episode.