Theories on the Use of Inflation in Economic Analysis

Andreea BALTAC, PhD Student
andreea.madan@yahoo.com
“Artifex” University of Bucharest

Abstract
The term inflation, in a first phase, was related to currency, money later and is now commonly used to describe the prices. This change of paradigm seems to originate in a sequence of unfortunate events, but probably inevitable.

The article presents the main theories that have led to the definition of the concept of "inflation" highlighting the successive acceptations that economists – starting with those classics, contemporary of Adam Smith – they have assigned over time of this economic phenomenon.

Key words: inflation, price, economic analysis, deflator, indicator

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In the 19th century the inflation was directly related to the devaluing and not raising prices. According to a press release from the year 1919 of the Federal Reserve, "inflation is a process of additional currency multiplier baseless by a corresponding increase in the production of goods."

After about 60 years, quote taken from the Federal Reserve has ceased to be valid, so that in 1978, the term inflation result causes: the evolution of the exchange rate, the increase in labour costs, weather and excessive growth of money.

Accordingly, the definition of inflation was the victim of a "war" theory of monetary growth and increase the general level of prices. What was once described as a monetary issue is presented now as a price effect. This change of direction has complicated the position antiinflation by supporters simply because of inflation based on the price level may have, so with I also stated, many causes, which hampers identification solutions to eliminate this phenomenon. When inflation was a question of money with a single location, namely the Central Bank, and a single solution – reducing the rate of monetary expansion.

Classical economists, Adam Smith's contemporaries, were very careful with defining the exact economic terms because they had language that was at the base of the construction of an emerging science.

Among their first contributions was and the distinction between real and nominal prices, so that the actual price (value) of a product was defined as the effort required to produce it, while in nominal terms (money) was characterized only by the cost in money (fixed in terms of gold or other precious metals). So said the value of goods is the laws of nature-labor effort – and nominal price differs depending on the availability of metals and precious sovereign laws that define a nation's money.

Although classical economists believed that the fluctuation of the price of goods may have temporarily disruptive influences on the economy (such as the production of the versatile resource redistribution between the parties to a contract with the fixed nominal price), finally this changes only served to change the scale by which to measure the actual
price. The idea that changes in the quantity of money affects only nominal price of goods was supported by many of the early classical economists, of which the best known was David Hume.

Theory was developed much more rigorously in the early 20th century, the Economist Irving Fisher, becoming known as the "quantitative theory of money".

The first generation of economists, Adam Smith's successors in the 19th century, were very interested in paper money, and their way of reporting the causes changes in the cost of a good is based on three distinct sources:
- change the value you get in real resource costs considerate a good;
- price change (nominal), due mainly to the metal content of the coin;
- devaluate, due to modificăriile of the currency relative to quantitative metal that Monad.

The term inflation was described originally by considering source relating to the depreciation of the currency, but at the end of the 19th century the distinction between coin and money was becoming more blurred. So at the beginning of the 20th century, economists had tended to report the inflation of the term using any medium of circulation of money assigned to commercial applications. But on this reporting changes to the term inflation has been raised a question mark. While the amount of money reported in the mass of precious metal was easily determined, things complicau when someone try to determine the quantity in circulation that go beyond commercial demand.

In the first decades of the 20th century, economists seem to arrive at a definition by which excess in the circulation of money can be explained only by the effect had on the price level. Such notions of inflation and prices have become linked in a way incomprehensible.

This change in rhetoric can have an insignificant impact on economy quantitative theorists because it seems implausible that they may be an important distinction between the two ideas. From their point of view of increasing the quantity of currency related to the commercial demand can have only one effect – increasing prices, and an increase in the price level may have a single origin – an increasing amount of money corresponding to their application.

However, some economists have tried to maintain the distinction between an increase in the level of prices based on "printing" extra appropriate currency trade and growth, a result of the partial trade for a definite money offer.

The link with the price level inflation proved to be another important crossroads for humanity. The appearance of the general theory of Keynes, in 1936, was considered hostages quantitative theory on monetariste theory that dominated macroeconomics for 40 years.

Calling the belief that uncommitted resources regularly and persistently – an idea backed up at the time of the great depression worldwide – keynian theory challenged the need for the link between the amount of money and the general level of prices. Furthermore, argued that the overall evolution of prices may be due to other causes than money.

In addition to the separation of monetary prices, keyniană revolution seems to separate the term inflation money situation and to redefine it as a description. In this way the inflation became synonymous with any price increase and that is why nowadays in very few cases distinguish between rising prices and inflation.

Referring to inflation as a consequence of too many money, economists have been forced to fight with the operational problem: "how much is a lot?". Quantitative theory provided a clear answer to this question: "too much money" means a monetary expansion
accompanied by a rise in the general level of prices. When economic theory keynisionă challenged the direct link between money and the price level, inflation has lost the association with money and has come to be associated primarily with the State.

Without being linked to the offer of money, any price increase per to be claimed by the term inflation. In this sense, when this term is used to describe measures antiinflationiste prices could be characterized as being against any price increases, including salaries and increase. According to monetariştilor this thing is unacceptable, and a antiinflaționistă exercise is concerned with a particular type of price increase – the resulting growth by creating excessive currency. Seen in this respect the objective of targeting a sustainable level of inflation has become a goal for central banks much more rationally.

The great inflation of the 1970s-1980s was considered, along with the Great Depression of 1929-1932, the biggest failure of poliicitilor and serious money in the 19th century. During that period the inflation exceeded the level of 10% in all the places, OECD a notable exception being Germany.

Although economic history was constantly faced with periods of inflation and even hyperinflation, Inflation is regarded by economists as a single episode. In comparison with the period of the great Inflation, other periods have been assigned to the two world wars, or other internal events that have led to major changes in the economy and politics of a country and which finally resulted in the response of the Government needs massive funding deficits by issuing currency (seigniorage).

The negative consequences of inflationary phenomenon of the 1970s-1980s contributed to change perception on inflation both in terms of monetary policy and decision-makers at the individual level of everyday living.

Opinion polls concerning the economic conditions reveals the desire of citizens to live in a stable environment in terms of the evolution of prices. About price stability can discuss when, on average, prices neither increase (inflation) or decrease (deflation), but remain stable over time.

Theory and economic literature is replete with information about the importance and benefits of price stability and the causes which gave rise to the growth or decreasing prices:

All the arguments presented in the literature suggests that a Central Bank that maintains price stability contributes to the attainment of major economic growth and economic stability, standard of living and employment of labor. Therefore, in the decades that followed the period Of Inflation, registered a remarkable covergență on the need to declare the price stability as the primary objective of monetary policy. Price stability has become the focal point because it is considered at the same time an achievable goal in the medium term but also a precondition for proper functioning of a market economy.

Treaty on European Union assigned the European Central Bank (ECB) mandate of keeping stabilității at european level, objective defined in quantitative terms as the average annual increase in the harmonised index of consumer prices HICP, under 2%. The ECB’s Governing Council has set the objective of keeping inflation below, but close to 2%. This target is considering a positive edge suitable for avoiding the risk of deflation, but sufficient to solve any implications created by the existing differential between euro area States, such that a State cannot survive in the euro zone with inflation rates too low, or even deflation. Moreover, this target and consider the possibility of a mild supraestimări real inflation measured by the HICP.
Despite this recognition indicated the need for stability, the notion is periodically subject to debate, which led ultimately to a lack of consensus on what should be understood by stability. This lack of consensus exists between academia and central banks.

All these concerns about inflation have influenced and the methodology of calculation of price indices. The problem of measuring error inflation was addressed for the first time in 1961, in the US, by the University of Chicago, led by George Stigler. The main recommendation of this Commission was the need to adopt a rigorous probabilistic methods for determining sample of shops and products, but also a greater formality to determine the specifications of the products.

In December 1996, all in the US, was released the Boskin Commission report whose impact is recognized worldwide, both in the academic world, but statistics and practice among central banks. Boskin Commission has singled out a number of possible errors in the measurement of consumer price index, such as: substitution of the products in the stores change indices, the difficulties in measuring the quality changes and the need to introduce new products. The analysis carried out by the Commission on u.s. data Boskin indicated that the effect of these inadequacies can be major statistical, leading to an overestimation of inflation measured at the level of the year, with the value estimated between 0.8-1.6 percentage points.

In addition to these measurement problems there is a general question relating to the coverage of the price indices used for the assessment of price stability. There may be cases in which the use of a general price index – such as the GDP deflator – which includes all final goods prices and services produced in an economy and can be considerably more relevant for investment and savings decisions.

Price index can be characterized as a factor which measures the relative change of this aggregate values as a result of changes in prices. As a result, all important formulas for measuring price indices can be expressed as a weighted average of the price relative weights are represented by the contribution of each product (article) in total value. We recall here the best known formulas for measuring price indices, expressed as a weighted average of the relative prices: Laspeyres index, Paasche index and indices Walsh Torngvist, respectively. Expressed as the geometric mean of the Laspeyres and Paasche indexes, index Fischer can be considered a function of expenditure weights derived directly from the total amount.

The relations existing between the most important four price indices are defined by assigning to the centralized aggregates defined by the System of national accounts (SNA). National accounts system is subject to periodic revisions, the latest being in 2008.

The most appropriate framework for the presentation of existing price indices in the statistical system is the table uses resources.

Resources and uses tables serve statistical and analytical objectives. The main statistical needs may be covered are:

- identify gaps and incoherence that affects the underlying data;
- and the calculation of weighting of indexes that measure price and volume;
- getting estimates in a residual manner (for obtaining a variable, it begins by estimating all other variables, the resulting difference is unknown), especially for the production and final consumption of specific products;
- checking and improving coherence, reliability and exhaustiveness of the data contained in the tables and uses resources and derived figures (such as those of the production accounts).
Also considering some basic concepts about the price statistics – the various formulas used to calculate the indices, the significance of the "consumer basket", the difference between the price index and price change, etc.

Price indices have a long history and a wide variety of use, ranging from adjusting the level of salaries, pensions and payments included in a long-term contract, deflating contrului national aggregates up to macroeconomic policy-making.

The easiest and most early example of index was proposed by William Fleetwood in 1707, which intended to measure the average changes of prices paid by students of the University of Oxford, over two centuries and a half. Another example of the 18th century was calculated index of the Massachusetts legislature in 1780, which aims to index the result paid soldiers fighting in the war revoluționarilor against England.

The 19th century is considered the most interesting moment in the history of the theory. In 1823, Joseph Lowe has published a study on the agriculture, Commerce and financial services. In the framework of this study, the author has developed the concept of the index of price change in monetary value as a set, or nomenclature of goods and services. This method is used nowadays. Diewert (1993) argues that Lowe can be considered the father of price indices. Later in the 19th century, were made other important contributions to the theory of indices, including those of the Laspeyres and Paasche (1871) (1874), whose names are associated with the most common types of price indices. Marshall (1887) claimed the use of chain indices, indices measure price trends from one year to another link together to estimate the evolution of indices over long periods of time.

In 1922, Irving Fisher published his monumental for those considered theory of precocupați: The Making of Index Numbers. This paper has singled out Fisher's interest on inflation and his support for a quantitative theory of money. Fisher has investigated the properties of hundreds of types of possible formulas for measuring price indices, preferita's finding the geometric mean of the Laspeyres and Paasche indexes, known today as the Fisher index.

In 1924, Konüs published a paper in which this foundation of economic theory of cost of living index (COLI), which is designed to measure changes in the cost to maintain the same standard of living (utility or welfare). In reality, consumers do not buy the same set of products and services in different periods, adjusting their own expenses according to price changes and other factors that intervene in the economy. A counterpart to produce SHEETS is fixed cost index of goods.

Another important approach within number theory was that of Divisia, in 1926, which is based on the assumption that prices and quantities change over time in a continuously and instantly. So there:

Consumer price index (CPI), which are the best known price indices measure price changes of goods and services from the perspective of a consumer. The CPI is based on prices of goods and services purchased by households. To ensure consistency of the price indices at european level, has developed Harmonized L index of consumer prices (HICP), which is a harmonized index of consumer prices for all EU countries and which take measurements euro area inflation.

The production price index (PPI) measures the price developments of transaction, monthly changes in the price of crude marketing of products and services for domestic and international.

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1 Erwin Diewert, University Of British Colombia
Their purchasing power (PPC) compares price levels between countries or regions. They are used to convert prices expressed in national currency into a common currency, in order to eliminate the differences between the price levels between countries or regions and can calculate purchasing power current/real resident population.

As economic phenomenon, social and monetary inflation was located in the center of attention of researchers belonging to different historical periods and schools which integrates in monetary-financial thinking. Causes, intensity, forms of manifestation, but, especially, the effects generated by inflation cannot identify, in their entirety, with the same circumstances and events that this phenomenon it has known in other areas and countries of the world.

Finally investigates the relevance of differences and relations existing between its types of price indices:

IPC under the pressure of the improvement – presents aspects regarding use, calculation and measurement of the statistical impact of administrated prices and tax changes on inflation;

statistical assessment of the State of convergence of the inflation rate in Romania - article proposes a model of the statistical evaluation of the State of compliance with the nominal convergence criteria relating to price stability. An evaluation synthesis of the harmonised index of consumer prices, a statistical analysis on the evolution of inflation in Romania and the existing gap towards the reference value for the nominal convergence criteria;

CPI and GDP price deflator – presents the main differences between the two types of price indices, calling the concepts and definitions used, the coverage of the two indices and the proposed calculation formulas for the two indices;

Prices and purchasing power parity – presents the price level and purchasing power in Romania compared to the price level of the EU Member States.

References