

THE THEORY OF RATIONAL EXPECTATION AND THE INERTIAL INFLATION

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Abstract: Through the causes of inflation, together with the monetary creation over the necessary of money movement, the control and the governmental monopoly over the money, the increase of governmental expenditure for diverse social programs, the syndicates pressure, the late reaction of supply at the level and the structure of demand and inflationist prevention can represent an impulse for the occurrence and the emission of inflation.

Paul Samuelson defines, in a plastic vision, money as being “the blood who irrigates the economic system” [Samuelson, Paul quotation taken from Sennholz, Hans, 1972]. When money knows a depreciation and devaluation it determines the government to control over the prices and wages, at restrictive quotas over the imports, the increase of tariffs and many other governmental restrictions intended towards individual activities.

“The cause of inflation is not represented by money themselves, but the devaluation of money – is at the root of many other bad things” [Sennholz, Hans, 1972]. The monetary devaluation destroys the individual economies, it makes an advantage to the debtors on the expenditure of the creditors, just like, in a silent way, it transfers the welfare and the incomes from the last to the first; it generates the cycles of economic activity, stops and starts the evolution of activities, which determines major loss for millions of people.

Through the causes of inflation, next to the monetary creation over the necessary of the monetary circulation, the control and the governmental monopoly over the money, the increase of governmental expenditure for diverse social programs, the pressure of syndicates, the late response of the supply et the level and the structure of the demand and the inflationist forecasts can represent an impulse for the apparition and the emission of inflation.

When the economic agents expect for a growth of the prices they will integrate this growth in the forecasts, their claims or their computations. It is the phenomenon of the “self-realization anticipations”, which consist of this: if each anticipates the inflation, the inflation is produced in reality [Didier, Michel, 1998]. Deep rooted in mind, the inflation etches the future.

The theory of rational expectations

The role that expectations play in the inflationist process it is at the bottom of the differences who exist between the traditional theories of explaining the inflation and the theories who appeared in the last fifty years.

The concept of “expectations” in the economic thought has been formulated, as it looks like, by **John R. Hicks** (1904-1989), who debates this concept in the work “The value and the assets” [Hicks, J. R., 1946].

An *expectance* it is an affirmation length with an unknown future event, making a distinction in a slight way of anticipation or of forecast. A forecast can be considered as a *expectance* become more precise, it is an explicit form and especially quantitative of a *expectance* [Frisch, Helmut, 1997].

The rational expectations represent “inspired forecasts over future events, they are essentially similar to the expectations who the economic theory confers to the respective events” [Muth, J.F., reproduced after Frisch, Helmut, 1997].

From the original formulation it had to pass a decade so that the notion of rational expectations to be accepted by economists¹.

The principal sustainers of the expectation theory are **T. J Sargent , N. Wallace and Lucas R. E.** T. J Sargent, N. Wallace, in the work appeared in 1973 “Rational Expectation and the Dynamics of Hyperinflation”, define the central concept of this theory like this: “we say that expectations in length with a variable are rational if they depend in a corresponding measure by the same elements that economic theory considers as determining, in a real way, that variable” [Frisch, Helmut, 1997].

In an economic model with endogen variables and exogenous predetermined, we can formulate the concept of rational expectations as being that formulation undistorsioned of the endogen variables in which it is known and it is used all the information referring to the values of the exogenous predetermined variables. Considering R_t^* and R_t the expected and the actual rates of inflation, and I_{t-1} the condition of the available information at the end of the period $t-1$, the existence of rational expectations imply the next two suppositions:

3. First supposition: $F(R_t/I_{t-1})=R_t^*$, where F represents a function of expectations; which shows that the inflation rate expected in rational way depends on the quantity of information I_{t-1} available before the forecast, at the moment $t-1$.

4. The second supposition: $R_t - R_t^* = R_t - F(R_t/I_{t-1}) = \varepsilon_t$, **where** ε_t represents a aleatory variable which shows that the rational expectations do not imply a perfect forecast, allowing an aleatory error ε .

If we take as an example, a modification of the money supply announced with anticipation, this modifies the expectations concerning future inflation with a certain grade of size. This is why, it will modify the actual rate of inflation, without affecting any of the real variables.

The theory of the rational expectations has been criticized because it assumed that the economic actors are capable to formulate correct expectations, but the sustainers of this theory respond to this giving two arguments [Hardwich, Philip; Khan, Bahadur; Langmead, John, 1994]:

- At this our, individuals are capable to obtain, at reduced prices, an amazing quantity of information regarding the economy. Newspapers, television and radio give constant information about the condition of economy and offer opinions about what it is possible to happen in the next months regarding the inflation, unemployment, production growth and other economic variables. The most important advantage of the theory of rational expectations consists of the recognition of the fact that the economic agents use all the information necessary to elaborate and formulate the expectations.

- The theory of rational expectations does not ask all the individuals to formulate the same expectations and nor does it pretend that the expectations of the people are

¹ The final accomplishment is due to the critics regarding the Phillips Curve; published in three important newspapers by R.E.Lucas, T.J.Sargent and N. Wallace.

always right. Everything that it supposes is that the expected values to be distributed around the real values, so that the correctness of the expectations is medium and so those will not fail to formulate the prediction of the adaptation expectations.

The inertial inflation² is the inflation which maintains at the same level until certain events of economic nature determine its modification. The inertial inflation has several characteristics among which we remember:

First of all, *the past legacy from past of inflation through demand excess* (for example in USA, the Vietnam war let as a legacy the inertial inflation, which in the '70s has been difficult to eradicate) [Tobin, James, 1983].

On the second place, inertial inflation is perpetuated by the *contracts and agreements regarding the wage assurance* [Tobin, James, 1983]. In USA, for example, the assessment of the unemployment rate is decentralized. It is assessed during the negotiations between syndicates and enterprises or on the unorganized labor market, administrative decisions for different employee categories. The synchronization of those negotiations it is uncertain, every week some of the contracts expire and are renegotiated. Furthermore, both sides, the organized and unorganized workers have implicit assurances and expectations regarding the level of salary that they will receive from the employers.

On the third place, *the wages inertia* which results from the understandings of price rise by the employer companies [Tobin, James, 1983]. The labor costs and of raw material on the production unit represents the base for industrial prices, their enlargement modifies the demand, but this fact it is not sufficient to avoid the substantial adjustments in matter of production and employment. Together, those institutions lead to a slow down of the prices and wages answer in case of recession and supply excess. Those wages and inertial prices have an internal source.

On the fourth place, *the anticipations regarding the future evolution of prices* that determines claims regarding the wages growth, are certainly very important for the inertial inflation analyzes [Tobin, James, 1983]. The employers follow this strategy because they wait for the other companies to follow the same strategy.

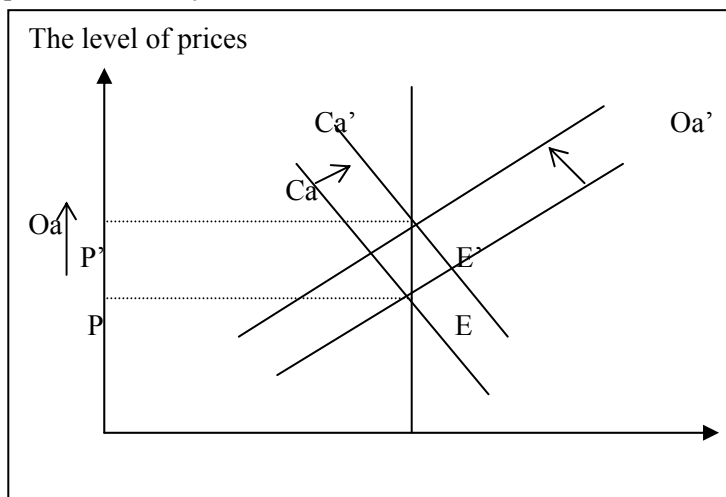
On the fifth place, the inertial inflation took a particular form in the '70s, as a result of the *external shocks over the prices and the supply* [Tobin, James, 1983]. The principal examples refer to two big increases in OPEC prices, first time in '73-'74 and then in '78-'79. Those shocks not only increased the current inflation rate, but also charged wages growth and led to the acceleration of inertial inflation [Tobin, James, 1983].

The inertial inflation can persist for a long time, as long as most of the people expect for the inflation rate to remain the same. The history proves that inflation does not maintain for a long time at the same level. Frequent shocks produced by modifications of the assembled demand, dramatic changes of the oil price, poor crops, changes of the exchange rate, productivity variations, etc., determines the inflation increase and decrease under the level of inertial rate.

²Tobin, James, in the work *Inflation: Monetary and structural Causes and Cures*, published in *Inflation through the ages: economic, social, psychological and historical aspects*, Social Science Monographs, Brooklin Colledge Press, New York, 1983, p 3-16, classifies the inflation in: inflation through costs, inertial inflation and conflict inflation.

Graphic nr.1

Phenomenon of inertial inflation – occurs when the curves Oa and Ca displacements up in the same rhythm [Samuelson, Paul; Northaus, William, 2000].



Source: adapted after Samuelson, Paul; Nordhaus, William, (2000) – *Political Economy*, Ed. Teoria, Bucharest, p. 696.

Let us suppose that the potential production is constant and no significant changes of the demand or supply take place (graphic nr.1). When everybody expects that the prices and wages grow every year for example with $X\%$, the medium costs grow in the same proportion, and the Oa curve will increase also with $X\%$ every year. If there are no sudden changes of the demand, the Ca curve will displace also up in the same rhythm. The crossing of demand and supply will be $X\%$ upper every year. Like this, the macroeconomic balance will displace from the point E to the E' point. From one year to another, the prices grow with $X\%$: inertial inflation it became constant, its rate being of $X\%$ [Samuelson, Paul; Northaus, William, 2000].

In conclusion, the economy is characterized at a certain moment, through a constant inflation rate, depending on which people adapt their expectations. This inertial rate of inflation tends to maintain until a shock determines its movement up generating the accentuation of inflation.

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