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## *A Typology of Central European Inflation in the XVIth and XVIIth Centuries*

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In the XVIth and XVIIth centuries certain phenomena occurred which were very similar to the various types of inflation that have been discussed and described by economists in the modern period.

Two broad types of inflation can be distinguished: 1) hyperinflation and 2) secular or creeping inflation (*schleichende Inflation*). The first resulted from monetary measures taken by various governments or companies entrusted with minting. Hyperinflation is generally a short-term phenomenon, but tends to reach such unprecedented proportions that it shakes confidence in the currency and the debased currency increasingly ceases to fulfil fundamental monetary functions. Hyperinflation, then, disrupts economic life and hinders production.

During the period in question, the most serious occurrence of the first type in Central Europe was the so-called « *Kipper und Wipperzeit* ». The problem originated in the currency regulation (*Reichsmünzordnung*) introduced in the German Empire in 1559, by which the silver content of small coin (*Kleingeld*) was fixed at too high a rate. As a result the minting of small coin, which involves much more labour and expense than the minting of large silver coin, gradually slackened. It is not surprising, then, that the minting companies manufactured small coin in very small quantities, with the result that small coin fell into short supply. Certain minting establishments turned the situation to their advantage by manufacturing large quantities of highly unsound smaller coin. The minting of this unsound coin was in fact beneficial, however, for there was a great demand for small coin for day-to-day trading and as a result a large number of illegal minting establishments (*Heckmünzen*), had begun to operate. In a short while the bad coin

"chased away" the good, and all the notorious symptoms of the years of the « *Kipper und Wipperzeit* » appeared, and almost paralysed economic life.<sup>1</sup>

Unlike the process of hyperinflation, in a period of secular inflation prices did not rise either sufficiently greatly or sufficiently rapidly to disrupt economic life and hinder production. The two types of inflation did not, then, differ only in scale and intensity, but also in quality.<sup>2</sup> Their causes differed similarly. In the second case short-term monetary measures were not involved, but rather a more fundamental and long-term process which originated in the very structure of the economy itself. The so-called "price revolution" was an example of this type of inflation.

Modern economists hold the view that secular or creeping inflation is exclusively a product of the modern period.<sup>3</sup> But this, I believe, is mainly because they are not familiar with economic problems in a historical context.

In seeking the causes of creeping inflation they point to a situation in which the quantity of money in circulation was, over a long period, slightly greater than the quantity required for trade and commerce at the time, when the quantity of precious metals in circulation grew faster than the quantity of goods produced. This cause of secular inflation is known as « the monetary pressure of inflation ».<sup>4</sup> For a historian of this period it is natural to consider the arrival of great quantities of gold and silver in the XVIth century as a kind of « monetary pressure of inflation ». If one looks at the XIXth century one comes up with identical conclusions: « When the annual increase in quantity of gold exceeds the growth in the volume of commercial goods, the price of money rises ».<sup>5</sup>

But it is also well known — I again quote H. Guitton — that « even if money is essential to oil the working of the economic motor, it does not alone guarantee that it will work ». Basically, even if its effects should not be overestimated, its function must always be seen in conjunction with other specifically economic measures.<sup>6</sup> The other factor in inflation — and it is, I think, the most important — arises from the internal tension in the economic

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<sup>1</sup> RICHARD GAETTENS, *Inflationen. Das Drama der Geldentwertungen vom Altertum bis zur Gegenwart*, Munich 1955, pp. 74-75.

<sup>2</sup> EVA RADNOTI, *A kuszó infláció elméleti problémái* (The theoretical problems of secular inflation), Budapest 1974, pp. 17-19.

<sup>3</sup> For example in Eva Radnoti's view secular or creeping inflation is a product of the economics of modern capitalism and its main cause is the existence of monopolies which hinder the "responsiveness" of production, *op. cit.*, pp. 101,110. I am not in agreement with this explanation offered by the author of this otherwise very instructive work, for in the past there were also other economic phenomena which effectively hindered production.

<sup>4</sup> BENT HANSEN, *A Study in the Theory of Inflation*, London 1951. Quoted by Eva Radnoti, *op. cit.*, p. 137.

<sup>5</sup> HENRY GUITTON, *Fluctuations et croissances économiques*, Dalloz, 1964, p. 245.

<sup>6</sup> *Ibidem*, p. 333.

system. Inflationary tension is produced, in H. Guitton's view, « When there is a permanent disparity between the rapidity of demand and the rapidity of supply, the former always exceeding the latter ».<sup>7</sup> There can be no question but that this was the case during the "price revolution". So while in general hyperinflation may be understood by studying specifically monetary problems, secular or creeping inflation, on the other hand, cannot be explained without reference to the notion of « excess demand » and the notion of the « demand pressure of inflation ».<sup>8</sup>

In the course of the great economic expansion of the XVIth century the different branches of the economies of Western Europe did not grow at the same speed, and so the tension did not affect all goods with the same intensity, which explains the diversity in the extent of price rises. The demand for foodstuffs, and especially grain, was much greater than the demand for industrial products, so that inflationary tension was apparent in the greater increase in cereal prices. Secular or creeping inflation is then a very widespread — and also very natural — means of eliminating the tensions that result from the slow transformation of the structure of a given economy. If production cannot make an adequate response to new demand, the inability to respond (or insufficient "responsiveness") leads to creeping inflation.

But how can the fact that inflation in the XVIth and XVIIth centuries was not confined to Western Europe alone be explained? Whether one considers the « monetary pressure of inflation » or the « demand pressure of inflation » it is clear that inflationary tension began there. It was of course in Western Europe that the precious metals from the Americas arrived, but the other, and in fact more important, inflationary element also originated there. With the exception of the Netherlands and England, whose agriculture did not cease to expand, the agriculture of other Western European countries was not intensified during the XVIth century, so they found it more difficult to feed their populations, which were increasing both in size and in the percentage concentrated in the towns. The price of foodstuffs, then, rose in the XVIth century and this rise led to the "price revolution". Western Europe could no longer do without agricultural imports, and had to pay with industrial products for the agricultural products they imported.<sup>8</sup> In the modern period, of course, inflationary movements knew no frontiers. But can the secular inflation that took place in the XVIth century be explained in terms of the entire European economy? I think it can. When the "excess demand" for foodstuffs created in Western Europe was transmitted — by means of foreign trade — to the markets of Eastern Europe, the « demand pressure of inflation » was also transmitted to countries where the

<sup>7</sup> *Ibidem*, p. 364.

<sup>8</sup> RADNOTI, *op. cit.*, p. 138.

<sup>9</sup> LASZLO MAKKAI, *Otazka charakteru feudalizmu na Slovensku v 16-18. stor.*

internal development of the economy would not yet have caused a rise in prices, and so would not yet have experienced secular inflation. Where the quantity of exports and imports was already very large — as was the case in the XVIth century — secular inflation itself, as well as its fluctuations, would be transmitted to all the countries that took any considerable part in international trade. In my view, then, secular inflation even in the XVIth century knew no boundaries.

The following figures represent the annual rate of increase in inflation during the 50 years from 1550 to 1600 and show that the rate of creeping inflation in the XVIth century can be compared with that of the modern period. As is well known, the price level of 1550 taken as 100 increased by varying degrees for different goods.

Year	Price level		Annual rate of inflation
	1550	1600	
	100	164	1 %
	100	250	1.8%
	100	260	2 %
	100	300	2.2%
	100	430	3 %
	100	500	3.3%
	100	600	3.6%
	100	710	4 %

These figures indicate an increase of 164% in the course of 50 years which corresponds to an annual rate of inflation of 1%, etc. I think one can say that for most of the goods the rise in prices reached 260-430% during the second half of the XVIth century, which corresponds to an annual rate of inflation of 2 to 3%. Such an increase can be compared with the upsurge in creeping inflation in the early 1960s.