WHAT CAUSED THE HYPERINFLATION AT THE BIG BANG: MONETARY OVERHANG OR STRUCTURAL DISTORTION?

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ABSTRACT: This paper investigates the unique institutional causes of high inflation in the former centrally planned economies (FCPEs) at the Big Bang and in the following restructuring period. From observed empirical evidence, a model is developed to demonstrate that the main causal factor for high inflation was structural distortion rather than monetary overhang. This price distortion caused the price explosion at the Big Bang and then the chronic inflation and fall in output in the following period. The model concludes that, in the period of structural adjustment, inflation is unavoidable unless prices can be more flexible downward. The FCPEs' government should target money growth only to the extent that structural adjustment is just accommodated, so inflation can be kept to a minimum. *JEL classification: P21, P22, E5)*

INTRODUCTION

Rapid inflation has been one of the most serious macroeconomic problems for those former centrally planned economies (FCPEs) in transition. Although this pressing issue has received much attention from scholars as well as policy makers, the unique reasons for the inflation in the context of restructuring, in my view, have not been fully understood. Many related puzzling phenomena so far either remain ignored or lack satisfactory answers.

For instance, following the conventional theory for market economies, Western news media often cites budget deficits or wage increases as major reasons for inflation in FCPEs. However, a careful examination of the FCPEs found a very weak relationship between inflation rate and budget deficit in FCPEs. Indeed, in Poland, the deficit to GNP ratio was even inversely related to the inflation rate during the 1990-1992 transition period. Poland's price liberalization began in 1990. In 1990, the inflation rate was high but the budget deficit was low. In fact, the budget had a surplus equivalent to 2.7 percent of GDP (Sachs 1993). In 1991 and 1992, inflation decelerated but the deficit to GNP ratio increased substantially. It was also unlikely that the inflation was being pushed by wage increases, because the real wage in Poland and Russia was falling during the restructuring. Hence, the conventional reasons for FCPEs' inflation, while widely quoted in newspapers and journals, do not seem to be persuasive.

What really caused the high inflation in economic restructuring? The problem should be carefully studied within the institutional framework of CPEs.

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MONETARY OVERHANG

The common explanation for the open inflation in economic reform offered by comparative economists is the release of the existing monetary overhang. It was widely said that FCPEs had long suffered from excessive money stock (monetary overhang) and repressed inflation. As the reform started price liberalization, it released the existing monetary overhang and transformed the repressed inflation into open inflation.

The hypothesis of monetary overhang appears plausible. However, it is now being questioned by critics on both empirical and theoretical grounds. A recent study by Chang (1994) found there was no strong evidence indicating that monetary overhang prevailed in the traditional CPEs. Chang examined money stocks across countries by comparing the ratios of money to nominal output, called the MO ratios, between the former CPEs and market economies. The results of the Mann-Witney test of the MO ratios of the two-groups of economies are reproduced in Table 1. Although the median of the MO ratio in CPEs, 0.455, is slightly higher than that in market economies, 0.434, the difference is statistically insignificant (with a P-value for the null hypothesis equal to 0.199). To further control cultural difference, a second test was conducted for market economies and CPEs in Europe. The result was a contradiction to what the hypothesis expected. The median of the MO ratio of the European CPEs was less than that of European market economies (0.452 versus 0.664, see Table 2). Hence the econometric results as well as the available data do not support the claim that monetary overhang prevailed in the traditional CPEs.[1]

Another problem with the monetary overhang hypothesis is the unexpected results of the "Big Bang" in Poland and Russia. The IMF, World Bank, Organization for Economic

Table 1

Do CPEs Have Higher MO Ratios than Market Economies?

System	*Number of Observations*	*Median*	*Mean*
CPE	69	0.455	0.472
Market Economies	1067	0.434	0.469

Notes: The Mann-Whitney Test Result:
$W = 42618.0$
P-value for H_0: Median (CPE) = Median (Market economies) is 0.1992.
The 95 percent confidence interval for the difference between the two medians is −0 017 − 0.076.
Minitab is used for estimation

Table 2

Comparison between CPEs and 19 Market Economies in Europe

System	*Number of Observations*	*Median*	*Mean*
CPE	56	0.453	0.472
Market Economies	318	0.664	0.718

Notes: The Mann-Whitney Test Result:
$W = 4742.5$
P-value for H_0. Median (CPE) = Median (Market economies) is 0.0001.
The 95 percent confidence interval for the difference between the two medians is −0 260 − 0 161.
Minitab is used for estimation. The 19 European market economies include: Austria, Belgium, Denmark, Finland France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway Portugal, Spain, Sweden, Switzerland, and United Kingdom.