

GDN – Global Research Competition, 2002

POLICY MANAGEMENT, WELFARE AND BARTER IN RUSSIA

Jose Noguera - CERGE-EI

Non-technical Summary

The main purpose of this project was to inquire into the nature of the barter phenomenon in Russia during the 1990s. Based on Noguera and Linz's working paper entitled "Barter in Russia. A Theoretical Model" (2002), which shows a general equilibrium model explaining barter as a consequence of a tight credit market situation, we develop a theoretical model aimed to identify on whether barter is the result of credit rationing or individuals' optimal choice. Then, the model is tested empirically. The theoretical model is explained in details in the paper entitled "Is Barter a Hobson's Choice," and the empirical testing in the paper entitled "The Mechanism Transmission to Barter."

The theoretical model work as follows. The credit market became progressively tighter for two reasons: the switch from seignorage to government borrowing, and lenders' withdrawal from the market as the economy's fragility increased. This pushed firms to look for alternative transaction technologies, i.e., barter. Yet, after the ruble collapse, the credit market loosened and barter declined. Then, it sets up a model to inquire whether barter results from credit rationing or firms' optimal decision when the credit market becomes tighter. Given the distribution of risk across firms, we find three

possible equilibria. In the first one, firms remain in the credit market until they are subject to rationing, and barter is a Hobson's choice, and second, if barter is a much more affordable technology, a tight credit market makes the less risky firms choose barter and there will not be credit rationing. A third scenario emerges as the market becomes even tighter and some credit rationing appears and we obtain an equilibrium in which barter is the optimal choice of the less risky firms and a Hobson's obtains choice for some riskier ones.

To determine which of the above equilibrium occurred in Russia, we conduct a VAR/ECM analysis second exercise, which is the goal of the second paper. The VAR/ECM exercise provides strong evidence of what has caused barter in Russia during the 1990s. Credit rationing explains an important share of barter transactions. The result that increasing government debt does affect neither interest rates nor output in the short-run is a typical symptom of credit rationing. Yet, it directly affects the share of barter transactions among industrial firms, which means that firms have chosen to barter because of the increasing rationing in the credit market.

On the other hand, we also find that many firms have chosen to barter because of the high cost of credit. The econometric exercise conducted shows clear evidence of the interest rate channel. A restrictive monetary policy made interest rate increases, and the higher interest rates foster firms to barter. Barter can be seen as an alternative choice to bankruptcy, especially for those firms that were subjected to credit rationing. It seems less clear whether this was the case of those firms that chose to barter. Yet, solving this puzzle is a matter of further research.