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Are Eastern European agricultural markets working? Beware of state-prescribed market interventions!

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Substantial danger exists that politically prescribed market interventions, designed to counter a supposed failure of the markets, will leave markets functioning worse rather than better. This is particularly true of Eastern European transition countries, where institutional regulations function only to a limited extent. Based on the findings of a variety of empirical studies that examine how Eastern European grain, dairy and meat markets are functioning, this policy brief strongly advocates restraint in the introduction of measures to regulate agricultural markets. Such regulations have high macroeconomic costs and may work counter to their objectives, which are designed to have popular appeal.

It is indisputable that properly functioning markets are essential to a society's prosperity and quality of life. It is also indisputable that poorly functioning markets (market failure) can justify necessary economic interventions by the state. What is debatable, however, is exactly when markets can be said to be functioning adequately under actual conditions, and to what extent the proper working of the market must be impeded before state market interventions are justified. What is, by extension, also debatable is whether and with what measures the state can counter market failure, if necessary, to improve the situation and avoid the risk of policy failure.

The debate is particularly important for Eastern European and Central Asian transition countries. One reason for this is the discussion about global food security, which has re-emerged as a topic since the turn of the millennium. Some Eastern European countries, specifically the large grain-producing nations of the Black Sea region (Russia, Ukraine and Kazakhstan) will be of major importance in solving the "global food problem". To achieve this, they will need to further mobilise their market and export potential via properly functioning agricultural markets and trade structures. Another reason is that the agricultural markets of many Eastern European countries are in a dilemma. These markets must struggle within the very persistent straitjacket of post-socialist (planned) structures, while also coping with the increasing dynamism and integration of economic processes. A third reason for the topic's re-emergence is that a IAMO assessment of approximately 800 academic papers suggests that many Eastern European agricultural markets are not adequately fulfilling their task of coordination. Of particular note is the fact that non-market-compliant state interventions in pricing and the exercise of market power are both weakening the functionality of agricultural markets. Finally, demands for state intervention in the market have increased since the turn of the decade, triggered primarily by instability in financial markets, as well as by certain phenomena in international markets for agricultural raw materials.

This policy brief will summarise the key findings of a variety of empirical studies on the functionality of Eastern European grain, dairy and meat markets. We will address four questions. First, have the frequent ad-hoc state interventions of the past decade in the wheat markets of Russia, the Ukraine and Serbia led to a long-term reduction in the functionality of the markets, and have they thus diminished these countries' prosperity? Second, is Russia using its position as one of the most important wheat exporters to exercise market power over wheat-importing countries and thus obtains price advantages? Third, is the highly concentrated Ukrainian dairy industry engaged in price dumping against agricultural producers of raw milk? Finally, can we see price dumping by the meat industry on agricultural producer markets?

Populist state interventions in the wheat markets of Russia, Ukraine and Serbia are inefficient and lead to high costs from a macroeconomic perspective

Prices on international grain markets have risen substantially over the past decade. As in many countries, in Russia, Ukraine and Serbia it was feared that these developments could lead to supply gaps, accompanied by considerable rises in the price of bread. The response of policymakers was to intervene immediately. In each case, they imposed a series of export restrictions on the market. The goal was to prevent pricing pressure on bread by raising the domestic supply of grain. In all three countries, the government intervened in export trade approximately 15 times in 2008 and 2011, introducing export tariffs, export quotas and export bans. These measures were accompanied by state intervention measures, state export licence systems and price controls on domestic markets. The markets were substantially unsettled, exports almost ceased and regulated pricing was overridden. Statistical analyses based on non-linear price series models show considerable influence on a variety of market attributes. For example, the domestic wheat markets of Russia and Ukraine were decoupled from global markets. However, the domestic producer price level could only be moderately stabilised at a slightly lower level. In Russia, the domestic price of wheat was reduced by approximately 15 per cent, and in Ukraine it was reduced by 30 per cent. Yet the price equilibrium was upset. In comparison with the global market, the national producer prices were too low, and in 2008, farmers had to tolerate substantial losses in income. The figure in Russia was around 1.8 billion US dollars, and in Ukraine, it was around 1.2 billion US dollars. Considering both countries together, lost exports for 2008 amounted to about 1 billion US dollars. In addition, the export restrictions, especially the frequent adjustment of interventions by raising/lowering, prolonging or suspending export controls, led to a high level of market uncertainty and greater price volatility. Ukraine, in particular, saw a long-term destabilisation of the wheat market, even after export controls were lifted.

In Serbia, the intervention policy produced virtually no positive sums, but did incur high costs. In spite of export bans, the domestic producer price level could not be decoupled from global markers and thus remained high. Additionally, no significant change was observed between wheat producer prices and flour prices at the mill stage. The policymakers undermined their policy of export restrictions with state intervention purchases and by maintaining tariffs for wheat imports. This reduced the domestic supply and counteracted the desire to keep prices down. Moreover – and this is particularly "counterproductive" – at the time of the interventions (2008 and 2011), Serbia registered significantly over-proportional increases in bread prices. Thus, the goal of consumer price stabilisation failed completely. The beneficiaries were the food industry, specifically mills and large bakeries. By a combination of skilful storage policy and misinforming consumers, they managed to increase profits, at the expense of consumers, by almost 50 per cent (110 million dollars) in 2008 alone. Mills and bakeries that could fall back on large storage facilities made use of their wheat in storage, which was bought at low prices during harvest. As a result, they did not have to buy through the expensive spot markets in 2008 and 2011. However, the bakeries justified bread price increases with high spot prices. Increases in bread prices were also seen in Russia in those very periods when export controls were in force. In Ukraine, on the other hand, additional controls on bread prices prevented them from rising.

Only in a few import countries were Russian wheat exporters able to realise price advantages by exercising market power

Another feature of the wheat markets of the Black Sea region, especially Russia, is their significance in international wheat markets. Russia, once a net importer, has become one of the leading wheat exporters in the world over the last decade, today exporting to 60 countries. The biggest buyers of Russian wheat include North Africa, the Caucasus region, and Central Asia. Russia also enjoys an important share of imports in these areas (between 30 and 70 per cent) and has few competitors. This fact, as well as the observation that Russian export prices (FOB), when adjusted for differences in transport costs, vary greatly between import destinations (thus deviating from the "law of one price") poses the question of whether Russia is exercising market power in the form of price discrimination against import countries and thereby realising price advantages. The findings of various statistical procedures to check imperfect competition on international goods markets suggest the following. Firstly, price discrimination was found in 8 of 25 studied import regions, predominantly in those countries of North Africa that were highly dependent on Russian exports, as well as in the Caucasus region and Central Asia (e.g., Georgia, Azerbaijan, Lebanon, Egypt). Secondly, the extent of price discrimination in these regions is relatively low. Russian exporters could realise only low price advantages at the expense of the import countries concerned. Finally, it must be noted that in most of the regions studied, no exercise of market power was found.

In some regions of Ukraine, the dairy industry practices price dumping against raw milk producers

Following the huge slump of the 1990s, Ukrainian dairy markets have recovered only to a moderate extent. In spite of this, Ukraine is one of the ten largest milk producers in the world. Since the middle/end of the 1990s, a large proportion of raw milk has been produced by small household farms.

For the most part, the dairies are private and highly concentrated regionally. Thus, in some of the 25 administrative districts of the Ukraine, the four largest dairies purchase between 60 per cent and upwards of 90 per cent of the raw milk produced. Interregional trade restrictions and administrative price controls are also in force. This raises the question of whether the Ukrainian dairy industry is exploiting its market position to exercise price dumping against raw milk suppliers. The empirical findings of model calculations based on industrial economic approaches show that in almost one-quarter of the regions (6 out of 25), regional market power is exercised by the dairy industry in the form of raw milk price dumping. This state of affairs is found primarily in central and eastern Ukraine, where few alternative sales channels exist for raw milk producers. Overall, the net welfare loss was around 64 million US dollars per year, or almost 500 million US dollars during the study period of 1996 to 2004. Moreover, the Ukrainian anti-monopoly authorities discovered cartel infringements in these regions at the beginning of the 2000s.

No findings were uncovered of price dumping by the Ukrainian meat-processing industry on meat producer markets

Similar to the dairy markets, the Ukrainian meat markets recovered only very sluggishly after the collapse of the 1990s. Yet they are still of considerable importance to Ukrainian agriculture. Here, we can also see a relatively strong concentration in meat processing, which could offer the meat industry opportunities for price discrimination towards farmers. Unlike the dairy sector, however, there are clear alternatives for direct agricultural sales, which suggest that farmers are less dependent on the meat-processing trade. This is also reflected in the empirical findings of model calculations for Ukraine as a whole. Thus, exercising market power in the form of price dumping against meat producers was not observed, although no regional studies on this topic have been completed.

Conclusions

A number of conclusions can be drawn from the analyses outlined above. First, the populist export policies of Russia, Ukraine and Serbia have led to long-term disruption in the allocation and supply functions of domestic wheat markets. National wheat markets were fragmented, there were greater incidences of instability and imbalances, and the situation encouraged corruption, especially in trading under Ukrainian grain export quotas. In addition, farmers and exporters had to put up with losses of income. In spite of high grain yield potentials, the diminished functionality of the markets massively reduced incentives for investment, thus arresting the development of the grain sector for a long time. Moreover, there was no stabilisation of consumer prices, especially in Serbia, and the measures were very damaging socially. What actually happened was that the food industry was given the opportunity to cheat consumers. Second, in spite of some suggestions that Russia's wheat exporters are realising price advantages by exercising market power over some import-dependent countries in North Africa and Central Asia, only a minor constraint on the allocation function of the global wheat market has been observed. For this reason, there is no direct need for policy to regulate the markets concerned. The importers in question should strive for further business relations and suitable tender arrangements for batches of wheat. Third, in some Ukrainian regions, the allocation function of the dairy market is constrained by "price dumping" by the dairy industry. Potential approaches to counter this could be eliminating administrative trade barriers, developing the transportation infrastructure and seeking alternative sales channels. Finally, there is no apparent need for political action to combat possible moves towards cartelisation in the Ukrainian meat market. To date, there are no signs there of price dumping by the meat industry on producer markets.

Overall, the findings of the studies suggest that structural problems such as a high concentration of suppliers, or demand in the wheat, dairy and meat markets, have not led to a substantial disruption of pricing processes or a disruption of the allocation functions in the markets concerned. The studies do show, however, that market intervention by the state intended to eliminate supposed misallocation actually ends up facilitating it. For this reason, the advice here is to pursue a "policy with proportion". Particularly in countries in economic transition, agricultural market policy ought to focus on measures and parameters that promote competition, as well as on direct measures of food security for poorer households. Governments should refrain from policies aiming to stabilise domestic price levels and to insulate the domestic market from prevailing international prices on world markets. Instead, governments should allow food prices to increase and also help the poor to cope with high food prices e.g. by food subsidies and direct income transfers.

Panicked excesses of regulation and hurried, unconsidered market interventions can lead to long-term disruptions in the functions of the market, with related consequences for global food security, agricultural and food sectors, as well as consumers. Indeed, it must always be kept in mind that policy failure in Eastern European transition countries can cause greater "harm" than market failure does.

Further information

The findings are documented in detail in the following publications

Djuric, I., Götz, L., Glauben, T. (2012): Export restrictions on wheat markets in Serbia during global commodity price peaks – Did consumers really benefit? Invited Paper, IATRC Annual Meeting "New Rules of Trade?", December 9-11, San Diego, USA.

Götz, L., Glauben, T., Brümmer, B. (2013): Wheat export restrictions and domestic market effects in Russia and Ukraine during the food crisis, Food Policy, Vol. 38: 214–226.

Götz, L., Goychuk, K., Glauben, T., Meyers, W. H. (2013): Export Restrictions and Market Uncertainty: Evidence from the Analysis of Price Volatility in the Ukrainian Wheat Market, Selected Paper presented at the Agricultural & Applied Economics Association's 2013 AAEA & CAES Joint Annual Meeting, August 4–6, 2013, Washington, DC, USA.

Götz, L., Qiu, F., Gervais, J. P., Glauben, T. (2012): Export Restrictions and Multiple Spatial Price Equilibria when International Prices Spike: The Wheat Export Quota in Ukraine, Invited Paper, IATRC Annual Meeting "New Rules of Trade?" December 9-11, San Diego, USA.

Páll, Z., Perekhozhuk, O., Glauben, T., Prehn, S., Teuber, R. (2013): Residual Demand Measures of Market Power of Russian Wheat Exporters, Agricultural Economics. (forthcoming)

Páll, Z., Perekhozhuk, O., Teuber, R., Glauben, T. (2013): Are Russian wheat exporters able to price discriminate? Empirical evidence for the last decade, Journal of Agricultural Economics, Vol. 64, No. 1, pp. 177–196.

Perekhozhuk, O., Glauben, T., Teuber, R., Grings, M. (2012): Survey of Empirical Studies of Market Power in Food Industries. Selected poster presentation, International Association of Agricultural Economists (IAAE) Triennial Conference, August 18–24, 2012, Foz do Iguaçu, Brazil.

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