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Prospects for the European pork sector in the context of the WTO negotiations and the sanitary, environmental and animal welfare regulation

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Results obtained within the research initiative "Porcherie verte"

Introduction

As a background for the "Green pork production" project, this study aims at providing an overview of the main factors that are currently in force on the European Union (EU) and world pork markets. The proposed analysis proceeds in two steps. The first step focuses on the competitive position of the EU on the world pork market. It describes the competitive forces and weaknesses, as well as the underlying trends, of the EU pork sector relative to its main competitors on international markets. The second step is more prospective. Using an updated version of the MISS model, it provides an assessment of the impact on the European pork sector of various policy scenarios built on two main features: the removal of export restitutions, as it could be imposed to the EU as a result of the current round of World Trade Organisation (WTO) negotiations; the potential increase in the EU pork production cost, as it could result from sanitary, environmental and animal welfare regulation.

Material and Methods

Based on a literature review, the first step provides an overview of the expected trends in world pork production, demand and trade on the one hand, and a comparison of average pork production costs in the main world exporting countries, on the other hand. The second step relies on simulations of various policy scenarios carried out with the MISS model (Modèle International Simplifié de Simulations). MISS is a static partial equilibrium model of the world agricultural markets and trade (e.g., Mahé et al., 1988). The model is centred on the EU and the United-States (US), other countries being aggregated in a single Rest of the World (RoW) region, and covers 11 agricultural commodities (such as grains, oilseeds, sugar, bovine meat, pork meat, milk and dairy, etc.). Taking the average 1998-2000 year as the base year, simulations are performed over the period 2000-2010. Four sets of policy scenarios are simulated: i) a reference scenario (REF) where policy and market conditions prevailing in 2000 are maintained until 2010; ii) a scenario assuming the removal of EU export restitutions for pork and poultry (RESTIT); iii) scenarios involving a 5% or a 15% increase in the EU pork production cost (COUT5 and COUT15); iv) scenarios (COUT+RESTIT5 and COUT+RESTIT15) considering both the removal of EU export restitutions and the increase in the EU pork production cost.

Results

Results of the first step cannot be presented in detail here (see Le Mouël, 2003). In very general terms, they show that due to an expected increasing trend in world demand, the world trade of pork meat should follow an upward trend over the period 2000-2010 (from +2% to +3.5% per year, depending on the studies). According to the experts, these favourable market conditions should benefit mainly to the US and Canada to the detriment of the EU. The US and Canada are better positioned than the EU on the Japanese market. The latter is expected to remain the major outlet on the world pork market, with Japanese imports continuing to increase significantly (from 0.84% to 1.4% per year, depending on the studies) over the 2000-2010 period. At reverse, the Russian market, an important outlet for EU exports, is expected to remain fluctuating and uncertain. Furthermore, most existing studies comparing average pork production costs in major exporting countries conclude to a significant cost advantage to North American producers relative to major EU producing Member States. Simulation results of the second step may be summarised as follow:

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- i) The REF scenario suggests favourable prospects for the EU pork sector, due to the expected increasing trend in world pork demand as well as to the positive impact of the Agenda 2000 reform.
- ii) The RESTIT scenario emphasises the key role of export restitutions as regards the EU export position in the world pork trade. Simulation results show that while EU exports increase substantially over the 2000-2010 period in the REF scenario, they follow a decreasing trend in the RESTIT scenario, due to the removal of export restitutions for pork and poultry.
- iii) The COUT5 scenario indicates that a 5% increase in the EU pork production cost due to sanitary, environmental and animal welfare regulation would have rather limited impacts on the EU pork sector. For instance, EU pork production increases by +1.23% per year over the 2000-2010 period in the REF scenario as compared to +0.80% per year in the COUT5 scenario. This downward production adjustment is partly translated to EU pork exports, which, as a result, increase slower in the COUT5 scenario relative to the REF scenario over the 2000-2010 period. Obviously, downward adjustments in EU pork production and exports are more important if the sanitary, environmental and animal welfare regulation is assumed to imply a higher EU pork production cost increase, as illustrated by the COUT15 scenario. In that case, the production cost rise would lead to a stagnation of EU pork production (-0.03% per year) and a decreasing trend in EU exports (-3.12% per year) over the 2000-2010 period.
- iv) The COUT+RESTIT scenarios show rather unfavourable prospects for the EU pork sector. Simulation results suggest that the removal of export restitutions associated with a production cost increase in the EU would prevent the EU to expand its domestic pork production (+0.01% per year over the 2000-2010 period in the COUT+RESTIT5 scenario and -0.79% per year in the COUT+RESTIT15 scenario) while implying a substantial contraction in EU pork exports (-10.5% per year in the COUT+RESTIT5 and exports nearly vanishing in the COUT+RESTIT15 scenario).

Conclusion

Obtained simulation results are only illustrative and must be considered with caution. In fact, the MISS model suffers from several drawbacks that are likely to contribute to overestimate the simulated negative impacts on the EU pork sector of considered policy scenarios, especially the ones involving the removal of EU export restitutions. The way export restitutions are taken into account in the model is likely to exacerbate their impact on EU pork exports. As export restitutions are figured out through a gap between the EU and the world market prices, it is implicitly assumed in the model that each tonne of pork exported from the EU to any third market destination benefits from a uniform export restitution. As a result, when export restitutions are removed the whole EU pork exports are similarly affected. This is clearly not the case on real markets. Secondly, in the MISS model pork is considered as an homogenous product and the EU as a single country. In other words the model does not allow for taking into account the great diversity of producing zones within the EU, nor the diversity of pork products, nor the diversity of export conditions according to third market destinations.

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