
Sponsors

University of Minnesota

College of Veterinary Medicine

College of Agricultural, Food and Environmental Sciences

Extension Service

Swine Center

Editors

W. Christopher Scruton

Stephen Claas

Layout

David Brown

Logo Design

Ruth Cronje, and Jan Swanson;

based on the original design by Dr. Robert Dunlop

Cover Design

Sarah Summerbell

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, or sexual orientation.

The effects of trade liberalization on the international pork market

Jay Fabiosa¹, Frank Fuller¹, Karl Meilke², Yves Surry³, Dermot Hayes¹

1: Iowa State University; 2: University of Guelph; 3: Economie Rurale, INRA, France

Introduction

The historic Uruguay Round Agreement on Agriculture (URAA) started in motion trade normalization in agrifood products, bringing agriculture under trade rules and disciplines similar to that of other sectors. However, the collapse of the initial GATT revisitation and the long process involved in multilateral negotiations in agriculture on the one hand, and the depressed world commodity prices on the other, have prompted some countries to explore ways of reducing trade barriers short of a comprehensive reform package. One potential approach is the zero-for-zero liberalization that would require countries to eliminate export taxes and subsidies, and import tariffs for specific sectors only.

The purpose of this study is to assess the impacts of removing border protection on world pork trade—particularly with respect to prices, producer revenue, supply and disposition, and distribution of trade changes in pork. To quantify these impacts, the Food and Agriculture Policy Research Institute (FAPRI) model of the world livestock sector—a partial equilibrium, non-spatial, policy-oriented, econometric model—is used.

The current state of world pork markets

Several factors shaping developments in the world pork economy over the last five years have opened export opportunities for low cost pork producers in North America. First, the continuing economic growth in East Asian countries—with strong preferences for pork, but poor in agricultural and natural resources—have fueled growth in world import demand. Second, the breakdown in production infrastructure in Central and Eastern Europe and the former Soviet Union (FSU) has dried down the exportable surplus from those countries. Moreover, in the last three years, pork prices reached their highest level in the last two decades for two years in a row (1996 and 1997) as disease-related problems exerted pressure on prices both from the demand and supply side. First, the BSE outbreak in the EU shifted consumption away from beef to pork and poultry. Then the FMD outbreak in Taiwan and CSF in the EU reduced excess supply of pork. The high prices encouraged one of the largest build-ups in pork production capacity. However, with the Asian and Rus-

sian economic crises hitting one after another, pork prices reached record lows in 1998 and 1999 in many countries. It is against this backdrop of untapped production potential in North American swine-pork sector, and continuing low pork prices that the zero-for-zero liberalization scenario gains appeal.

The distortions in the world pork market caused by large importers with high import duties and large exporters with substantial export subsidies have restricted trade, capped prices, and perverted the distribution of trade among countries. Japan, the biggest importer of pork in the world, has one of the highest levels of protection at 103%. This protection has restricted growth in imports. Moreover, the implementation of its import protection—which still behaves like a variable levy—has compromised the competitive advantage of North American low-cost suppliers by allowing high cost suppliers such as Taiwan and South Korea to compete in the Japanese import market.

South Korea liberalized pork imports in 1998 with tariffs declining to 25% by 2004. South Korea subsidizes pork exports to Japan. Taiwan, through a WTO accession downpayment agreement, has given the United States import quota of 15.5tmt at rates varying from 15% to 50%. Import into China is constrained by a 20% import tariff and 17% value-added tax (VAT). However, licensing procedures and phytosanitary controls may be more import restrictions. Southeast Asian countries, including the Philippines, Thailand, and Indonesia, have duty rates ranging from 40–60%.

The European Union, the largest pork exporter, has a domestic price support through private storage aid scheme. With high domestic prices, the EU has to subsidize some of its pork exports. The EU reached its GATT limit of allowable subsidized exports in the 1998–99 marketing year. A substantial part of its exports are unsubsidized, mostly from Denmark going to Japan. The EU has a TRQ in pork of 76tmt which mostly come from CEEC, Baltic, and ACP countries at 20–45% import tariff.

The Americas are governed by RTAs with zero duties for imports from other RTA members. NAFTA has liberalized pork trade for the U.S. and Canada, while imports into Mexico will be duty free by 2003. Brazil, Argentina,

Uruguay, and Paraguay have liberalized pork trade in the MERCUSOR agreement.

Most CEEC countries have pork import TRQ with out-quota rates ranging from 27–52%¹, as well as subsidized exports particularly for Hungary and Poland.

Estonia has an open pork import market, while the rest of the FSU countries—including the Russian Federation, Ukraine, Latvia, Lithuania, and other FSU—impose a tariff of 15–40%.

FAPRI model simulations

The simulations assumed a five-year phased-in removal of implied duties. A new world equilibrium is solved in each scenario and the resulting production, consumption, trade, and prices are compared to the FAPRI 2000 baseline. The first simulation includes only WTO member countries in the zero-for-zero liberalization. The second scenario adds to the first scenario non-WTO members from the FSU and the CEEC. The third scenario adds to the second scenario China and Taiwan with a 27% reduction of duties in China. The fourth scenario is like the third but with more optimistic liberalization in China—a 70% reduction in implied duties—considered to give a trade path that is within China's logistical capabilities.

Scenario 1

As border protection is gradually eliminated in all WTO member countries, world pork import increases by 50% in 2010, from 3,033tmt to 4,538tmt. This exerts an upward pressure on prices, which rises by 13%. Most of the increase came from highly protected import markets such as Japan (859tmt), Philippines (370tmt), and South Korea (162tmt). High cost producers reduced their exports. Hungary's exports declined by 52%, and the EU's dropped by 70%. Poland switches to an importer of 202tmt. Higher world prices encouraged expansion of pork production in low cost producing countries, and re-allocated pork disposition more towards exports. Brazil's exports increased by 250tmt, Canada by 260tmt, and the U.S. by 1,891tmt. Importing countries with minimal to no protection (e.g., Hong Kong) and non-WTO member importing countries (e.g., Russian Federation) reduced their imports as they are facing higher world prices.

Scenario 2

With additional import markets opening in the FSU and CEEC in Scenario 2, pork imports increase by 65% and

world pork price rises by 16%. This is mostly driven by the higher imports from the Russian Federation, which increased by 67% (579tmt). This additional demand was met by moderated growth of imports from WTO member countries (e.g., Japan), slower decline in exports from high cost producing WTO member countries (e.g., EU), and additional supply coming from the low cost producing countries. Canada's exports increased by 299tmt and the U.S. by 2,195tmt.

Scenario 3

Scenario 3 opens the import markets of China and Taiwan, which more than doubles world pork import demand, reaching 6,466 in 2010. As a result, world pork price rises by 18%. Brazil, Canada, and the U.S. have a combined increase in exports of 5,319tmt.

Scenario 4

With higher tariff reductions for China in Scenario 4, world pork imports more than triple (reaching 11,100 in 2010), and causing price to rise by 35%. At this higher price, several countries are able to provide excess supply of pork in the world market, including Brazil, Canada, Mexico, U.S., EU, Hungary, Poland, Ukraine, and Australia.

Summary of results

The zero-for-zero liberalization alternative is very attractive to producers in North America and Brazil. Their gross revenue rises, as they are able to export more pork at higher prices. Revenue impact to the EU is not large (it increased only in Scenario 4). Producers from the rest of the countries face lower gross revenue with liberalization including Japan, Philippines, South Korea, Poland, and the Czech Republic, among others.

Finally, it should be noted that with all the various sources of uncertainties not covered in the model, such as externalities in quality and transportation, political response, variability in crop yields, pork productivity, and macro-economic variables, the results presented here should be taken in context.

Notes

¹ Romania has higher rates.

