Strengthening Import Regulations Segments World Markets

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Increasing international trade in agricultural products often must be accompanied by strengthening import regulations designed to prevent the introduction of exotic livestock diseases or plant pests, which could devastate agricultural production in the importing country. Stricter regulations may separate world markets into so-called "free" and "affected" markets or may redefine their boundaries.

Foot-and-mouth disease (FMD) and regulations regarding it are a prime example. FMD is a serious, contagious viral disease that primarily affects cattle, swine, and other cloven-hoofed animals. Because of the nature and severity of the disease (see box), FMD is a major determinant of world beef trade patterns.

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FMD Is a Serious Livestock Disease

Foot-and-mouth disease (FMD) is a serious livestock virus that can cause death, low market weights, and abortions. Swollen vesicles, or blisters, form on stricken animals mainly around the foot (or hoof) and mouth. The animals eat less because of the painful vesicles and become feverish and dehydrated. Eradicating FMD requires slaughtering infected animals and disinfecting or destroying any infected materials.

FMD is very difficult to control by vaccination—the scheme used in most countries. There are at least seven different types of FMD virus, and immunity to one does not give immunity to another. An animal that recovers from FMD may still carry the virus for nearly a year with no evidence of infection. During this period, the animal may be temporarily immune to the virus, only to fall victim to the disease afterward.

FMD is one of the most devastating diseases afflicting livestock. In 1989, an EC Commission study estimated that the average cost of controlling a single occurrence of FMD on one farm for an average size herd at risk was about 158,000 ECU (European Currency Units).

The viral disease is highly contagious and spreads quickly. FMD can be carried on packing materials, vehicles, various animals (including birds), and even humans, although it is not a disease of humans. One outbreak in Mexico in 1946 spread at the alarming rate of 500-square miles per day. Even with substantial U.S. assistance, it took 8 years to eradicate FMD in Mexico. The United States and Mexico subsequently formed a Joint Commission for the Prevention of FMD. No outbreaks in North America have occurred since, but the Commission still maintains a role in preventing outbreaks.

The World Beef Market Is Divided

The regulations of major FMD-free beef importers may have been partially responsible for the emergence of the two beef markets. The United States and many other FMD-free countries guard against the accidental reintroduction of FMD through strict import regulations—restricting imports of live cattle and swine from infected countries, and even from those using vaccination to control the disease (unless the animals are subjected to a very lengthy, expensive, and rigorously controlled quarantine). Countries that rely on vaccination are treated as if the disease were present, because the vaccination produces antibodies that interfere with serological testing and may mask the clinical symptoms of FMD. FMD-free countries also restrict any fresh, chilled, or frozen meat from these animals (but may import cooked and cured deboned meat from FMD-affected markets because these processes kill the FMD virus).

Therefore, the FMD-affected beef market consists of countries with FMD outbreaks and those vaccinating to control it. Many beef trading countries—including most European Community (EC) members, eastern Europe, and some non-EC western European countries—have used vaccination to prevent outbreaks.

Because of FMD, most South American countries are excluded from the North American fresh, chilled, and frozen beef import market. Although the Enterprise for the Americas Initiative encourages free trade throughout the Western Hemisphere, major South American beef exporting countries will have to eradicate FMD and forego vaccination-control programs (a difficult and expensive task) to reach the North American fresh, chilled, and frozen beef market. Ongoing vaccination programs are expensive, because cattle must be treated annually and hogs must be treated several times a year.

Many major beef importers—particularly the EC—do not currently restrict these products. For example, Germany imports fresh and chilled beef from Argentina (an FMD-affected country); the United Kingdom imports deboned frozen beef from Argentina; and Italy imports live cattle from eastern Europe, where vaccination is used to control FMD.

The United States allows fresh, chilled, or frozen beef to be imported from only those countries recognized as FMD-free. FMD-free countries that allow imports of uncooked beef or pork from FMD-affected countries must comply with additional restrictions to have access to the U.S. market.

Most beef trade in the FMD-free market is from the United States and Australia to Japan, and from Australia and New Zealand to the United States (as well as live cattle from Mexico and Canada to the United States). In the FMD-affected market, most trade is beef from South America to the EC (and cooked beef to the United States) and live cattle from eastern Europe and some non-EC western European countries to the EC.

Strengthening EC Import Regulations Would Rearrange Trade Flows

The EC has targeted FMD for eradication, but faces some obstacles due to concessionary agreements to import fresh, chilled, and frozen beef from countries infected with FMD. It is unclear whether the EC would be willing to rescind these agreements to assist its eradication effort.

Eliminating these concessions and introducing more stringent import regulations similar to those of FMD-free countries would partially isolate the EC beef industry from competition with FMD-affected third (non-EC) countries. This would increase internal EC beef trade and depress beef prices in FMD-affected third countries.

Cattle ranching in Argentina, a major FMD-affected beef market.

The EC has dismantled vaccination programs for FMD in member nations as a first step toward FMD eradication. The last vaccination took place in August 1991. The EC's FMD goals, as well as other regional trade liberalization efforts, may provide some new incentive for FMD-affected countries to eradicate the disease.

Argentina, Brazil, and Uruguay are infected with FMD and are major sources for EC beef imports. If the EC moves into the FMD-free market, these South American countries face reduced access to the EC fresh, chilled, or frozen beef import market. However, concessionary agreements between them waive the EC's variable import levy for specified quantities of beef imports in order to permit a minimum level of access.

The EC's change from vaccination to eradication is a move toward creating a single FMD control program in the EC. Previously, only three EC members (the United Kingdom, Denmark, and Ireland) prohibited vaccination and followed national eradication policies. Two members (Italy and Germany) had persistent outbreaks of FMD prior to 1989.

The three FMD-free EC member nations use additional measures to control beef trade with FMD-affected countries. The nature of these measures varies between the FMD-free members. Although the United Kingdom allows imports of beef from FMD-affected countries (provided that it is deboned and the lymph glands are removed), other members, such as Ireland, maintain stricter regulations similar to those of the United States.

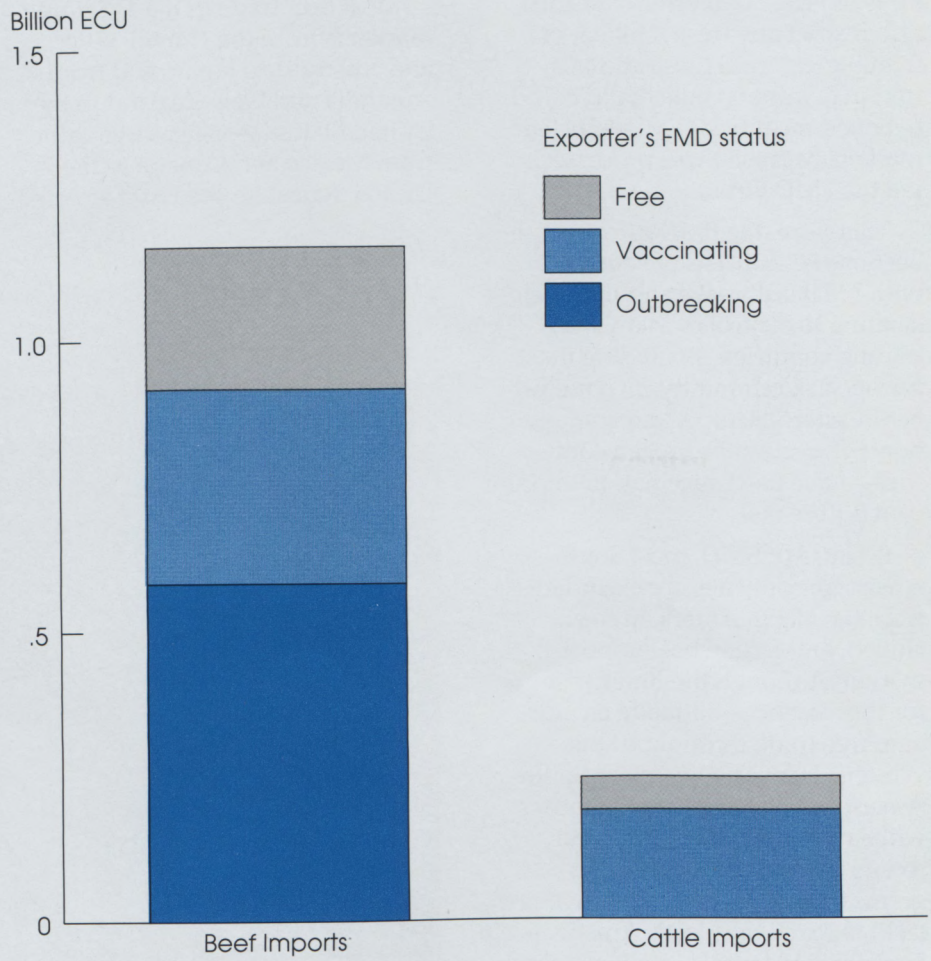
If the EC harmonizes and upgrades Community animal health regulations to the highest existing national level, the remaining EC members might adopt more stringent FMD import regulations similar to those of Ireland to further the eradication process.

If the EC adopts such regulations, substantial third-country exports of fresh, chilled, and frozen beef and live cattle will be diverted or even eliminated, because most of the EC's beef imports are from FMD-affected countries (fig. 1). Potential recipients of the diverted imports include the Commonwealth of Independent States (the former Soviet Union), Middle East, or north Africa. These regions are major importers of beef and live cattle from FMD-affected countries (some beef was from EC government stocks).

Some beef, however, would likely continue flowing from FMD-affected countries to the EC. Over 50 percent of EC beef imports from South America in 1987 were cooked, while only about 16 percent from eastern Europe were cooked and none from Austria or Switzerland were cooked. However, exporters will not likely replace the lost trade with cooked beef because it may be a poor substitute for fresh, chilled, or frozen beef.

Much of the beef imports diverted or eliminated by the EC under this scenario are likely to be

Figure 1
Most EC Beef and Cattle Imports From Outside the EC Are From FMD-affected Countries



Source: NIMEXE. *Analytical Tables of External Trade*, 1987.

replaced through internal EC trade. Although the EC is self-sufficient in beef production, it imports and exports beef. The imports are largely due to international obligations incurred through the General Agreement on Tariffs and Trade and concessionary bilateral agreements. The imports are also due to inherent differences between the beef that is imported and exported (such as fresh and chilled imports versus frozen exports). The EC subsidizes beef exports through refunds provided to exporters to help them compete in world markets and to help reduce large internal beef supplies.

Other possible sources of FMD-free replacement beef for the EC include the United States, Australia, and New Zealand. However, the EC's Third Country Red Meat Directive drastically reduced the number of slaughterhouses, including many in the United States, approved for export to the EC. The use of naturally occurring hormones to enhance beef production, viewed as safe by international scientific agencies but prohibited in EC beef imports, limit the ability of U.S. producers to tap into the EC market. The EC's *ad valorem* tariffs and variable import levies further add to the hurdles faced by U.S. and other FMD-free beef exporters.

FMD-free Countries Have Access to More Markets

FMD-affected countries are in a more vulnerable trade position than FMD-free countries. FMD-free countries have access to both the free and affected markets, while affected countries are largely excluded from the free market. Beef imports of FMD-free countries have risen since 1981 (fig. 2), largely due to increases in Japan's beef import quota.

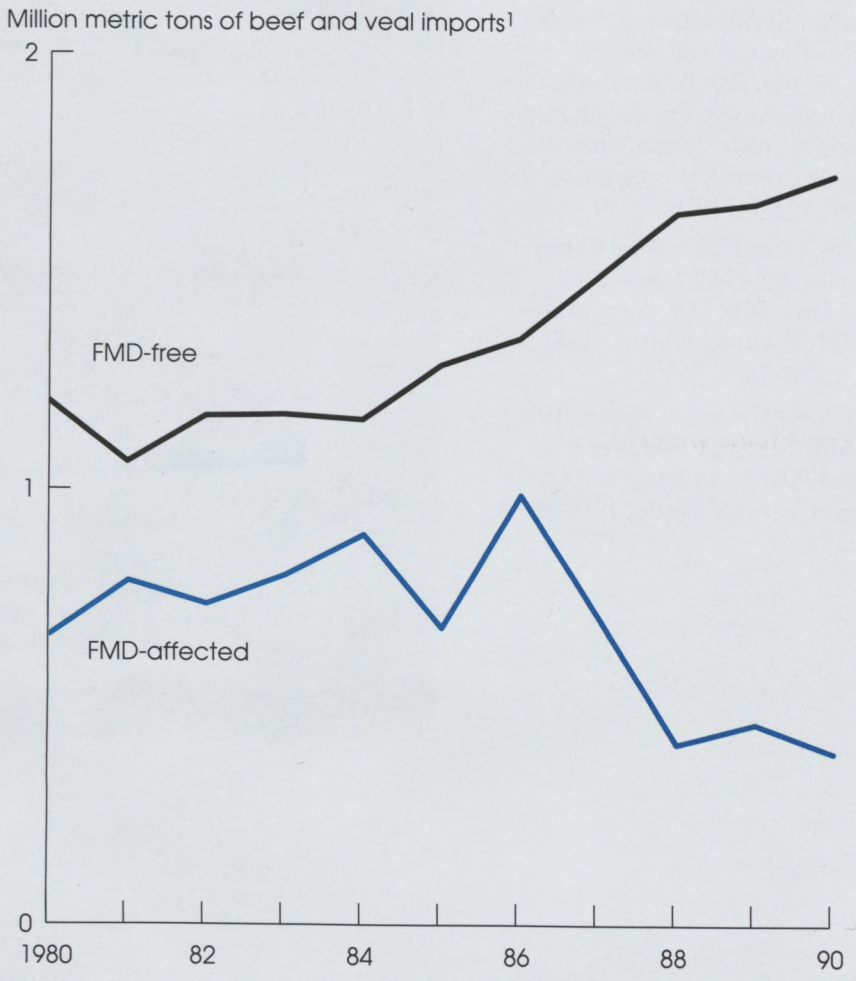
In comparison, beef imports in the FMD-affected market have fluctuated considerably due to various policy events. In 1986, for example, Brazil contracted for about 430,000 metric tons of beef—mainly from the EC, United States, and Uruguay—because domestic producers held supplies off the market in retaliation for a government price freeze. These imports followed important events in the EC and U.S. dairy sectors. The EC limited dairy production, which increased dairy cattle slaughter and, therefore, beef supplies. Export subsidies helped offset these effects. In the United States, the Dairy Termination Program paid producers to slaughter their herds, which resulted in large supplies of low-cost beef available for export.

Of course, an FMD-free country does not automatically have access to another FMD-free country's import market. Other trade measures may restrict access. But these restrictions may ease in the future, as attempts are made globally and regionally to free agricultural trade.

There are advantages to eradicating FMD other than increased access to import markets. For example, the EC Commission (the administrative body responsible for implementing EC policy) estimated the costs of an FMD eradication program to be about 35 million ECU (in 1987 European Currency Units) over a 10-year period, com-

Figure 2

FMD-affected Countries Have Limited Access to Important Beef Markets



[1]Selected Importers. FMD-free regions include North America and Japan. FMD-affected regions include the former Soviet Union, Middle East, North Africa, Brazil, and Venezuela. (EC imports are not included.) Source: USDA, Foreign Agricultural Service.

pared with 1.1 billion ECU for a vaccination program during the same period.

It will be easier for some countries than for others to eradicate FMD, eliminate vaccination programs, and move into the FMD-free market. Eastern Europe and some non-EC western European countries, such as Austria and Switzerland, have not reported any outbreaks of FMD in recent years. For them, the cost of switching from vaccinations to eradication programs may be lower than in South America, which vaccinates and experiences FMD outbreaks.

For Additional Information, See . . .

De las Carreras, Alberto. "Foot-and-Mouth Disease and World Meat Trade," *Marketing of Animals and Their Products and Animal Health*, SP No. 374. Proceedings of the XI Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control, Washington, DC, April 11-14, 1978.

Kelch, David, and Terri Raney. "Europe 1992, GATT, and Food Safety: How Will U.S. Agriculture Fare?" *Agricultural Outlook*, Dec. 1989, pp. 33-36.

U.S. Department of Agriculture, Economic Research Service. *Livestock and Poultry Situation and Outlook Report*, various issues, 1986-88. ■