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Agricultural Trade & the 1997-99 International Financial Crises

The 1997-99 international financial crises that began in parts of Asia and spread to the former Soviet Union and Brazil led to lower currency values, reduced economic growth, and higher interest rates in crisis countries, and affected agricultural prices, production, consumption, and trade worldwide.

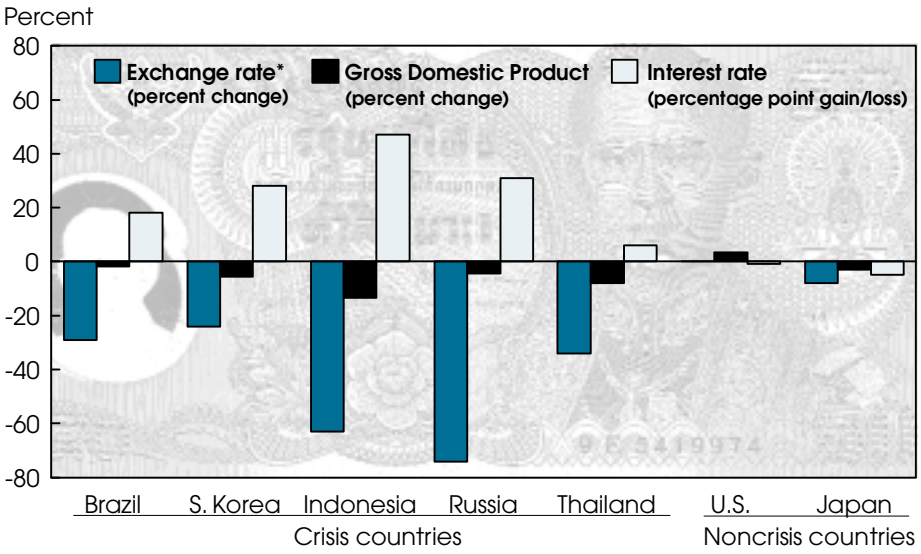
While currency depreciation helped some agricultural producers in the crisis countries by making their products more competitive in export markets, depreciation generally hurt crisis-country consumers as domestic prices climbed. Expanded agricultural production and reduced imports improved the short-term agricultural trade balance of crisis countries, but long-term gains in competitiveness will only come if the improved trade relationships last as the crises wane. For the U.S., the financial crises and depressed global commodity prices reduced agricultural exports and decreased the agricultural trade surplus, but lowered costs for imports and helped to keep inflation in check.

Prior to 1997, the Asian economies had experienced a decade of extraordinary growth. Bank lending was the major vehicle for financing the economic expansion, and a large part of the investment funds came from abroad. However, the rapid growth was fueled mainly by increases in the quantity of inputs used in production (primarily labor and capital) rather than a rise in productivity. Lagging productivity growth diminished the long-term potential of investment in these economies and reduced the likelihood that returns would be sufficient to repay lenders.

Weaknesses in the financial and banking systems (including corruption and favoritism in lending), high dependence on short-term foreign debt denominated in dollars, and insufficient financial oversight increased the vulnerability of the crisis countries. As concern over the viability of bank lending mounted, weaknesses in the financial and banking systems combined with investor panic to create a situation akin to a bank run, triggering capital flight (particularly foreign capital) and plunging equity (stock) prices. Central banks in the crisis countries depleted foreign reserves trying to defend fixed exchange rates of the affected countries in the face of growing capital flight. Rapidly declining reserves further hurt investors' confidence and put more pressure on exchange rates. The deteriorating situation became a crisis in summer 1997.

The financial and economic consequences for crisis countries were severe: 35-75 percent depreciation in currencies, 2-14 percent reductions in income, and 6-47 percent rises in interest rates during 1997-99. The financial turmoil that erupted in Thailand in July 1997 and subsequently

During 1997-99 Financial Crises, Growth Rate Declined In Crisis Countries and in Japan



Data cannot be interpreted as solely the result of the crises. Crisis stage varies among countries--1997-98 for Asian countries, 1998-99 for Russia, and 1999 for Latin America.
*Changes relative to the U.S. dollar.
Economic Research Service, USDA

Trade Volume of Many Commodities in 1998 Reflected Impacts of Crises

	Rice	Wheat	Corn	Soybeans	Soybean meal	Soybean oil	Cotton	Cattle hides	Beef	Pork	Poultry
					Percent change from 1997[1]						
Crisis countries											
Imports											
Brazil	29	8	-46								
Korea	156	41	-14	-10	27	9	-4	-30	-45	-14	-52
Indonesia	116	55	-32	-86	-39		-22	-18	-71	-86	-41
Russia		97					12		5	5	-79
Thailand	Nc		-3	-21	-36						
Exports											
Brazil				112	-3	47	-25	-18[2]	66	-5	19
Thailand	-10		35	142							41
Noncrisis countries											
Imports											
Japan	-12	-9	-0.3	-6	9		3	-16	3	-1	0.3
U.S.	14	9	127	-20	78	22		-17[2]	13	11	-33
Exports											
U.S.	Nc	Nc	30	-9	-26	-24	-44	-24[2]	2	18	-2

Nc = No change.
1. Data are for U.S. marketing year (e.g., for soybeans, September 1998-August 1999 compared with same period in 1997/98) and January-December for other countries, except Brazil (January-June 1999 compared with same period in 1998 and Indonesia (January-May 1998 compared with same period in 1997). 2. Value terms.
Note: Data in this table cannot be interpreted as solely the impacts of the financial crises. For example, Korean rice imports increased due to government timing of purchases.
Source: ERS/USDA; World Trade Atlas; and country sources.

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spread to other countries set back world economic growth and trade.

This article is based on a study by USDA's Economic Research Service (ERS) that details the impacts of economic upheaval on a group of crisis countries—Thailand, Indonesia, South Korea, Russia, and Brazil—and on a selected group of noncrisis countries—China, Japan, Taiwan, and the U.S.

Crisis & Contagion

The most immediate effect of large-scale capital flight was major depreciation of crisis countries' currencies. Currency depreciation drove up import prices for consumers and producers in the crisis countries, and fueled economywide inflation. Producers of primary tradable commodities that did not rely heavily on imported inputs for production tended to benefit from currency depreciation and higher domestic prices, while producers of high-value-added products who depended heavily on imported inputs and borrowed capital saw costs escalate.

Consumption effects were more severe in the original crisis countries in this study—Korea, Indonesia, and Thailand—because they were the first to suffer rising domestic prices and significant declines in income and wealth. In Korea, for example, real gross domestic product (total goods and services) fell 5.8 percent in late 1997 through 1998, unemployment rose from 2 percent to 6.5 percent, and consumption expenditures declined almost 2 percent as many consumers lost income and wealth from across-the-board salary reductions and plummeting stock-market values. For noncrisis countries, the economic effects of the crisis were generally not as severe, although the extent depended on their economic conditions at the outset.

The economic crises and depressed global commodity prices adversely affected U.S. agriculture and other trade-dependent sectors, although the employment and income effects were less long-lasting and severe than during the 1980's developing country debt crisis. Crisis countries' demand for U.S. products fell overall, but the decline in the volume of U.S. agricultural exports to Asian countries was offset partly by an increased volume of exports to noncrisis regions, especially NAFTA trading partners. North America is close to surpassing East Asia for the first time as the number-one regional market for U.S. food and agricultural exports.

While lower U.S. agricultural exports and higher imports narrowed U.S. agricultural trade surpluses, U.S. market share was essentially stable for most commodities, in volume terms, in major markets such as Japan. The decline in total value of agricultural exports—down 15 percent in fiscal year (FY) 1999 from FY1997—was predominantly a price phenomenon, caused by large supplies from major exporting countries along with weakened demand from crisis-affected countries. The net effect on U.S. producers' farm income was negative.

The effects of exchange rate changes on commodity prices for U.S. exports depended on how quickly and completely price impacts were passed through to producers and consumers (i.e., exchange rate pass-through). The degree of exchange rate pass-through is specific to a commodity and depends on factors such as competitiveness of the industry, substitutability of the product, and U.S. share of the market in a given country. For example, the response of prices in the Japanese import

market to changes in dollar/yen exchange rates was relatively high for U.S. corn and soybeans—the U.S. captures a large share of the import market for these relatively homogeneous commodities—compared with pork and poultry in which the U.S. is less dominant in Japan.

Agricultural Sector Adjustments

The crises affected agricultural production and prices, consumption, and trade.

Production and prices. Higher domestic prices (in domestic currency) as a result of currency depreciation during the early stage of the crisis led to an increase in commodity production in Brazil, Indonesia, and Thailand. Most notable was increased output of primary commodities, whose prices rose more than prices paid for inputs. In Brazil, for example, farmers benefited from higher prices in terms of the local currency (the *real*) when domestic live poultry prices rose in relation to production costs (mostly corn), leading to a 5-percent increase in poultry production after the Brazilian crisis began in January 1999.

The 1997-98 Asian crisis appeared to stop the rise of wage rates and slow the exodus of labor from farms. Farming became a more attractive alternative when jobs in cities became hard to find, and rising domestic prices for farm products provided an incentive for people to move back to farms and rural areas. The financial turmoil reduced wage costs in both rural and urban sectors in Korea, Thailand, and Indonesia.

Negative effects on production occurred when prices for output did not rise sufficiently to offset increased input prices. For some farm commodities heavily dependent on imported inputs such as fertilizer, feed, seeds, or chemicals, lower currency values led to higher costs of production, resulting in a cost-price squeeze for producers in some sectors, such as textile production in Thailand and poultry and textile production in Indonesia.

Higher interest rates adversely affected agricultural production in some countries at the early stage of the crisis. In Korea, for example, as livestock producers anticipated higher interest rates combined with higher feed prices from the depreciated Korean won, Korean livestock producers rushed cattle to market for slaughter in December 1997. As a result, beef production temporarily increased and prices declined.

Consumption. Consumption of agricultural commodities in crisis countries declined because of higher prices for domestic and imported goods, lower income from slowed economic growth, and general inflation brought on by currency depreciation during the crises. The annual inflation rate at the peak of the crisis in Thailand was 8 percent, as high as 70 percent in Indonesia, and nearly 8 percent in the first 5 months of Brazil's crisis.

Higher food prices and lower income induced diet changes and in some cases changed consumers' buying strategies, at least in the short run, in many affected countries. Indonesian consumers substituted cheaper tofu protein products for expensive meat, causing soybean imports to increase and meat and corn imports to decline. Wheat products such as bread had been a popular item among Asian consumers. After the crisis, as the cost of wheat and wheat flour increased, Asian consumers switched to cheaper sources of carbohydrates such as rice. Indonesian per capita wheat consumption, for example, fell 39 percent. Even in noncrisis countries like Japan, consumers turned to lower quality (and lower priced) cuts of imported beef.

Trade. Currency depreciation raised prices of imports and exports in terms of domestic currency, but lowered prices of exports in terms of foreign currency. Export prices rising more than import prices makes a country more competitive in international trade, and depreciation may thus have a beneficial impact on its balance of trade. However, the effect may vary among sectors. In Korea, for example, export prices overall increased more than import prices, but for agricultural commodities, export prices increased less than import prices, because of the worldwide drop in agricultural commodity prices.

Trading firms adjusted their mix of goods when currency depreciation raised prices. Sheep hides and skin or low-quality hides and skin were substituted for higher quality cattle hides and skins. In Indonesia, cheaper and lower quality Vietnamese rice (25-percent broken) substituted for Thai rice (5-percent broken). Polyester replaced cotton in shipments to Thailand and Korea. Brazilian importers switched from expensive milled rice to paddy rice, raising paddy rice imports by 244 percent during January-June 1999. For noncrisis countries such as Japan, the effects of reduced global commodity prices for some imported commodities outweighed the exchange-rate effects of the lower yen, benefiting importers.

High credit costs in some countries hindered export potential, particularly for those export commodities that depended on imported inputs such as cotton, feeds, and hides. Textile industries in Indonesia and Thailand were particularly hard hit as credit constraints set back their export potential. Indonesia's poultry industry collapsed due partly to expensive credit and high costs of imported feeds.

The value of U.S. agricultural exports dropped $8.3 billion—about 15 percent—from FY1997 to FY1999. In volume terms, the decline in exports to the crisis-affected countries was almost offset by increased exports to other regions, particularly NAFTA countries. This suggests that the decline in value was due mainly to lower export prices, in large part from record world grain and oilseed output that contributed to depressed global prices. U.S. agricultural imports also increased during the same period, reflecting the robust U.S. economy and growing demand for variety and off-season supply of horticultural and other products.

Changes in agricultural policy in response to the crisis affected trade. Elimination of the Indonesian monopoly agency (BULOG) that has authority over imports of rice, wheat, soybeans, and garlic was a

An International Agriculture and Trade Report, "International Financial Crises and Macroeconomic Linkages to Agriculture," will be published by USDA's Economic Research Service in winter 1999/2000. Watch for it on the ERS website www.econ.ag.gov.

direct result of the financial crisis, and affected trade of those products. The International Monetary Fund, along with other organizations, arranged multibillion dollar financial aid packages for Indonesia, Korea, Thailand, Russia, and Brazil that spelled out conditions to be met by recipient countries. As part of its $42-billion IMF-led financial aid package, Indonesia agreed to reduce import tariffs on food and to open its market for rice, wheat, soybeans, and garlic. But BULOG still retains a key role in rice purchasing, distribution, and inventory management. The U.S., as well as other developed countries, responded to the crises in Asia and other areas by providing financing to the crisis-affected countries to help them pay for imported agricultural products.

Varying Impacts Of the Crises

The international financial crises during 1997-99 were severe for economies of the directly affected countries. The impacts of the crises vary among crisis and noncrisis countries, as well as among different economic sectors within a given country. The ERS study indicates that market impacts in the crisis countries from significant depreciation of their currencies, accompanied by changes in interest rates and income, depended on existing economic conditions, government policies, and the financial and banking institutional framework prior to the crisis.

Impacts on agricultural sectors in the crisis countries were mixed, raising production of some commodities and lowering others, and were also a function of prevailing economic conditions, agricultural policies, interest rates, price effects of exchange rate changes, and credit conditions within individual countries. Production of some primary agricultural commodities increased, providing an incentive for some farmers to stay on the farm and motivating some workers in the cities to trade job scarcity for the pursuit of agricultural activities in rural areas.

Currency depreciation boosted agricultural exports from crisis countries by making prices more favorable to foreign purchasers, but imports decreased as income and wealth declined and goods from abroad became relatively more expensive than domestic products. Faltering demand in the crisis countries reinforced the general downward trend of world agricultural prices, contributing to a reduction in value of U.S. agricultural exports and a narrowing of the U.S. agricultural trade surplus.

The effects of the crises on U.S. agriculture were determined by the existing structure of industries, relative use of capital and labor, and the nature of competition with other countries while the crises persisted. While the financial crises in Asia, Brazil, and Russia have had some impact on U.S. agricultural trade, export volume has remained fairly steady as the U.S. has been shifting to less reliance on Asia and toward greater reliance on NAFTA trading partners as a market and supplier of imports. The value of U.S. agricultural exports fell significantly, largely from price declines as a result of record world grain and oilseed production.

The value of Asian currencies stabilized in 1998 and interest rates have since declined, but crisis-country economies continued to contract through the end of the year. After 2 years of setbacks, some crisis economies finally started to turn the corner in 1999, with South Korea and Thailand leading the recovery. With increasing economic growth in Asia, the market for food and agricultural products will once again grow. The volume of U.S. agricultural exports is expected to rise in FY2000, but value is expected to remain flat at $49 billion. AO

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January Releases—USDA's Agricultural Statistics Board

The following reports are issued electronically at 3 p.m. (ET) unless otherwise indicated.

January

4 Dairy Products
5 Broiler Hatchery
7 Dairy Products Prices (8:30 am)
Poultry Slaughter
11 Cotton Ginnings (8:30 am)
Crop Production (8:30 am)
Egg Products
12 Crop Production—Ann. (8:30 am)
Grain Stocks (8:30 am)
Rice Stocks (8:30 am)
Winter Wheat & Rye Seedings (8:30 am)
Broiler Hatchery
Turkeys
13 Turkey Hatchery
Vegetables
14 Dairy Products Prices (8:30 am)
Potato Stocks
Vegetables—Ann.
18 Milk Production
19 Broiler Hatchery
20 Catfish Processing
Noncitrus Fruits & Nuts Prelim.
21 Dairy Products Prices (8:30 am)
Cattle on Feed
Cold Storage
Livestock Slaughter
25 Cotton Ginnings (8:30 am)
26 Broiler Hatchery
27 Peanut Stocks & Processing
28 Dairy Products Prices (8:30 am)
Capacity of Refrig. Wareh.
Cattle
Chicken & Eggs—Ann.
Sheep & Goats
Wool & Mohair

The next issue of *Agricultural Outlook* will appear in March.