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

Cover Design
Ruth Cronje, and Jan Swanson;
based on the original design by Dr. Robert Dunlop

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.

Perspective on the global economy and agriculture

Dr. Sung Won Sohn, Ph.D.

Don Hilber, M.S.

Wells Fargo & Company. Minneapolis, Minnesota

Introduction

The last two years have seen some extraordinary developments in the global economy, agriculture, and the swine industry. Spawned by a generally unforeseen collapse in many Asian nations, global growth plummeted from 4% in 1997 to less than 2% in 1998, its largest one-year falloff since the Great Depression. Overall growth in the United States economy was barely dented by this shock, as falling inflation and interest rates spawned enough added consumption and investment to offset a sharp drop in exports. But certain sectors of the economy were devastated, agriculture among them. Prices plunged, export markets dried up, and competition with other nations intensified. Farm income retracted, propped up only by generous infusions of government aid. Swine industry operators suffered some of the steepest losses, hog prices dropping to levels not seen in 25 years and staying below break-even levels for most of the past two years. There is still no sign that prices will get and stay high enough during the next year to prevent many farmers from leaving the business.

From this chain of events, it would be easy to conclude that the Asian crisis was the primary cause of the swine industry's misery. But that would be a wrong conclusion to make. The facts indicate that the prolonged softness in hog prices stems primarily from factors other than a loss of export markets. When the Asian economies and global demand recover, as they are now starting to do, there will be no panacea for the swine business. Exports might notch up, but domestic conditions will still matter more. Input prices could remain lower than break-even levels and farm policy—geared towards crop producers—will be of limited help.

Prospects for global growth

The recent global crisis began just over two years ago in July 1997, when Thailand devalued its currency (the baht). This set off a chain reaction throughout Asia as nation after nation followed suit in order to pay back dollar-denominated debt and to remain competitive in world markets. Poor business, lending, and government practices were exposed, having been shielded by years of phenomenal growth. Foreign investors turned risk adverse and fled to safe havens. Interest rates were raised to keep capital, plunging almost every nation into a sharp recession. The loss of demand for many world-traded goods spelled doom for other emerging markets or those heavily dependent on commodity exports. From Russia to Brazil, currencies lost value and the chain of events was repeated. Political turmoil made matters worse for some nations. Investors became more discriminating between governments that managed their economies well and those that did not. But investment generally kept flowing out. During the second half of 1998, the United States was truly an "oasis of prosperity" thanks to the benefits of disinflation, falling interest rates, and a consumer culture that responded to a unique combination of strong job growth, rising net worth, and low prices. The additional impetus of Federal Reserve easing at that time—enacted when global woes were creating a credit crunch—has kept the U.S. economy growing strongly through the first half of 1999.

Lately, however, there are signs that the rest of the world has turned the corner and begun to grow again. Not every nation is yet out of the woods. Most of South America is suffering recession throughout 1999 and parts of Asia, such as Hong Kong and Indonesia, will face a second year without positive growth. Japan, China, and Europe are still sluggish. But the nations that got into trouble first and took appropriate measures are beginning to reap the benefits of falling interest rates, reduced capacity, and cheaper currencies. A surge in government spending has also had a huge boosting effect. Korea, Singapore, Thailand, Malaysia, and the Philippines are all recovering now. Mexico and Taiwan, neither of which suffered recession thanks to wise policies and close ties to the United States, are also growing faster. And the industrialized heavyweights of Europe and Japan are going to grow better also as the year progresses. Stronger world demand will help, and they will begin to see the effects of having previously pumped up their economies using either government spending (Japan) or monetary easing and a weaker currency (Europe).

There are still risks that the world could slip back into crisis. Countries with rigid exchange rates pegged to the U.S. dollar are still suffering from a lack of competitiveness. China and Argentina might still devalue and/or default, setting off the renewed fears where funds would

flow quickly into the U.S. again and either starve emerging markets of needed capital or cause many to raise interest rates and curb their nascent recoveries. Alternatively, the fear of Y2K could again flood the U.S. with safe haven flows at a critical moment and reverse just as suddenly. The shocks might undermine markets or freeze trade. A third risk is that because of its large current account deficit and budding inflationary pressures, U.S. interest rates rise too fast, drawing much-needed funds away from recovering nations or teetering ones like Japan.

All in all, these risks could delay—but still have a low chance of undermining—the longer cyclical trend now resuming. It looks like the world will grow by 2.5% in 1999 and 3.0% or more in 2000. The road back will not be as steep as the recent plunge, but that's probably for the better. A quick resumption of growth to the 4.0% rate of 1997 would add to inflationary pressures and threaten to derail the world recovery. In hindsight, it looks like 1998 is the low point in the global cycle, comparable to previous years such as 1991, 1982, and 1975. The world remains tied to a business cycle that is more muted than national cycles—growth has never dipped below 1%—but has oscillated on a regular 7- to 9-year pattern.

The main lesson for agriculture, as for many other industries, is the reminder that cycles are still in force and that long-term growth remains limited by population and productivity. Fast-growth years, such as 1996 and 1997, are not typical and can well be followed by slow growth years. That's when commodity business are still apt to see sharp price declines. Plans should not be made or policies formulated during good times on the premise that they will persist.

There are two additional lessons for agriculture to be gleaned from this recent global crisis. One is that nations do not move in synch; when one market collapses, others grow. Exporters who relied too heavily on East Asia for business fared worse than those who included relatively better performers like Mexico in their sales mix.

A final lesson from this crisis is that export markets may once again be the next good source of income growth. The most extraordinary aspect of this particular global slowdown is that the United States did not lead the world down and will probably not accompany it on the upswing. In fact, by next year global growth will be accelerating as U.S. growth is decelerating. That will create a different environment in 2000 and 2001 than the one that prevailed in 1998 and 1999—better opportunities for those facets of agriculture not tied so closely to the U.S.

Prospects for U.S. agriculture

The fact that global growth and U.S. growth are now cycling at different times marks a turning point for the U.S. farm sector—the realization that its fortunes are just as much (if not more) tied to events around the world that to those in this country. While the globalization of U.S. farming has been noted for some time, this is the first significant instance in which a strong domestic economy and a strong farm sector have not coincided. Previous times of trouble in agriculture have always been accompanied by recessions in the United States. Farm problems usually began with a steep rise in input prices, recession-spawning interest rates, and a falloff in consumer demand. But during the last two years, input prices fell, interest rates were generally lower, and American consumers raised their spending.

The 1990s have seen US agricultural globalization take a quantum leap forward. At the start of the decade, trade (exports plus imports) accounted for one-third of total agricultural output, but this jumped to over 40% by 1995 and has remained there, despite declining exports in each of the last three years. Moreover, net cash income from farming (excluding government payments) has generally moved in concert with global demand all decade long, bottoming in 1991, peaking in 1997, and faltering by 1999.

The driving force behind this growing connection is the world's desire for better food. World population is growing faster, by 1.3% annually compared to the United States's 0.9%. Most of this raw growth is in low-income nations that rely on exports of staples like wheat. Moreover, faster rising incomes in middle-income nations is causing a change in diet favoring protein, which the U.S. is better placed to export—directly through meat or indirectly through feed grains. And higher income nations now prefer to buy American grain-fed meat rather than foreign grass-fed meat and are increasingly purchasing more high-value processed foods as well. American agriculture's long-term future is still tied to world markets.

But there are three factors currently limiting the potential gains in exports: global over capacity, farm policy, and the strength of the U.S. dollar. The first and second were spawned by high demand prior to the crisis, and the third by the crisis itself.

When prices were rising during the mid-1990s, lots of new land was planted and harvested in foreign nations. So world production for many products actually grew faster than overall world trade. Of eight major product groups, only two saw the exported share of overall output rise during the last ten years—oil seeds and poultry. For the other six—wheat, coarse grains, meals, oils, cotton and red meat—production has grown faster than exports. World agriculture is suffering as much, if not more , from over-capacity as it is from decreased demand. Good crop yields and heavier livestock weights compound the oversupply situation.

Farm policy doesn't help either, for it has failed to address the underlying problem of oversupply and has probably forced prices lower than they would have otherwise

been. Since Freedom to Farm was enacted in 1996, there is no longer any government stockpiling and only limited focus on acreage curtailment. Instead, policy keeps production high and more farmers in business by providing assured payment support levels and disaster aid, but does so only after a crop has been planted. The recent attempt to have prices determine planting decisions has failed by adopting a compromise position of transition payments. Better to have a completely controlled or completely free market rather than the present hybrid. Crops with the lowest prices (soybeans) are artificially overproduced and free stocks are left to flood the market. The end result is that more rather than less aid is being spent on farmers. Production is further enhanced because in almost every country, exports are promoted and imports restricted. World trade talks make only small dents in overall subsidies because any nation's attempts to open foreign markets for its export products are impeded by its reluctance to open up domestic markets to other goods. Sugar, cotton, and sheep are some prime examples of products that are more competitive elsewhere but persist here because of designated support.

The third factor that is putting a limit on future export gains is the high value of the U.S. dollar. Because economic growth in the United States has been significantly faster than its trading partners for three years straight, the desire for dollars has been greater, lifting the exchange rate. This situation is starting to reverse, but it will take time for the currency to fall as far as it has risen. In the meantime much damage to exporters of all sorts will be done. Products most affected will be those that have a huge share of output devoted to exports and/or that must compete against areas with a big drop in their currency such as Canada, Australia, Brazil, Mexico, and the Euro. Of the major product lines, soybeans, wheat, and beef are most affected. Corn is less affected because two of its three main competitors are Argentina and China, states that have remained pegged to the U.S. dollar. If China or Argentina devalue—a growing possibility—recent gains in corn exports could reverse. At the same time, a strong U.S. dollar has hurt the trade balance and U.S. producers on the import side. They have risen substantially in 1999 for many competitive products such as red meat, wine, cheese, and fruit.

So, U.S. agriculture faces an uphill battle during the next decade to maintain, let alone expand its share of world output. A recovery in world growth is certainly positive for farmers, but the world has changed appreciably since the halcyon years of the mid-1990s. Developing nations now have to demonstrate reforms to attract capital, limiting how fast they can grow. Large carryover stocks still have to be drawn down. More nations are producing for their own needs. Farm policy is encouraging overproduction. Competition with other exporters is intensified by a strong currency and imports are threatening domestic sales. Prices may rise again as the world economic cycle turns up, but they may not get high enough for farmers to remain in business without government life-support.

Prospects for the swine industry

The swine industry may not follow the same trajectory as the rest of U.S. agriculture because its structure in many ways is different. It is largely coincidental that this industry suffered worst at the same time as crop and other livestock farmers. In many ways, the Asian crisis should have helped the industry.

First, both gross and net pork exports continued to grow every year from 1995 to 1999. Lost Asian sales were more than offset by gains in exports elsewhere, especially to Mexico. Second, the severe recessions in East Asia meant less meat eating, but that took a bigger toll on their domestic pork producers than on the United States. Exports to Japan and Hong Kong from the United States increased substantially between 1997 and 1998. Third, consumer demand in the United States was boosted, which matters more to swine than to all crops and most livestock. Of all the top farm products aside from dairy, pork is the most domestic-driven, even after strong export growth this decade. Exports still constitute only 6.6% of all production, lower than either beef or poultry and much lower than corn, soybeans, wheat, and cotton. Fourth, the sharp drop in the price of corn and other feed grains meant lower costs of production. The price of corn, being highly export-oriented, is more sensitive to world conditions. Nevertheless, the hog-corn feed ratio has been falling during most of two years of global crisis. Clearly other factors were at work to offset the benefits the crisis bestowed on the swine industry.

Much of the problem stems from the sharp swings in the hog breeding and production cycle, which have always caused violent swings in prices. The cycle alone does not explain why hog prices have reached their lowest levels since 1972 or why for nearly two years prices have stayed below break-even levels near $40.

Other special, but non-trade, factors account for the extraordinary severity of the current price problem. Foremost has been the over-expansion in hog inventories because of larger production facilities, which also prompt much heavier weights. Only five states have gained hog share since 1993 (at the expense of all other states): North Carolina, Colorado, Oklahoma, Kansas, and Minnesota. The industry, which began concentrating in two geographic nodes during the 1970s and 1980s, is still expanding at these nodes (North Carolina and Iowa/Minnesota), but is now starting to add large operations in cheaper Western locations. As a result, many smaller farmers who wished to remain in business (which looked good at prices prevailing three years ago) felt they had to expand aggressively to compete. Farms got bigger very quickly.

Slaughter capacity in both the U.S. and Canada could not keep pace with herd expansion, spawning the use of contracts between meat producers and farmers. Those with contracts fared better when the cycle turned and prices dropped. Those without found less weekly buying, which drove the price down even further as the cash market began to cover a smaller share of transactions. These low prices caused some liquidation among those without contracts who wanted out of a business where prices above break-even looked more and more remote, driving cash prices down even further.

In a strong domestic economy, per capita consumption of pork was suddenly not as price sensitive. Total U.S. meat consumption per person rose in 1998, with pork gaining share over beef and poultry without a relative price drop to prompt more sales. Retailers did not have to lower pork prices in line with hog prices. So the farmers' share of the retail price plunged to half of what it was four years ago, unlike beef where ranchers kept getting a constant share and one much higher than hog farmers.

For the farmers in the swine industry to again prosper, it will take much more than a rebound in world demand and exports. A reversal of these domestic conditions is more critical. Many, but not all, should change for the better.

With fewer hogs retained for breeding, fewer pigs will be born. In time, slaughter numbers will drop, lifting prices. A slowing U.S. economy will put per capita meat consumption back on its long-term trend, so retail pork prices will once again follow beef and poultry. Beef prices are sure to rise as slaughter is sharply reduced next year. Retail pork prices will rise in synch. And as more slaughter capacity comes on-line and frozen pork inventories are reduced, packers will increase buying. The farmers' share of price will rise. The promise of a sustained rise in prices will end liquidations, but by then fewer smaller farmers will be left in business that can quickly ramp-up production.

However, the industry will be permanently altered by the experience. The number of farms with hogs has been plunging for years, in good times and bad. This crisis did not reverse the long-term trend and probably accelerated it. More production is now concentrated in fewer hands and it has shifted out of those locations historically populated by small- to medium-sized farmers. Some of the smaller operators who survived the tough years will not want to go through another cycle, especially since faster world growth means eventually having to face rising input prices. And, without a farm policy that provides income support to livestock producers as it does to crop farmers, many could sell out at a profit once prices are better, concentrating the industry even further. The large-scale farms that remain will then begin to look more towards global markets, recognizing the limits to pork consumption in the U.S. Resumed income growth abroad will increase the appeal of meats. That's when the true globalization of the swine industry could begin in earnest.

But there are still many unknowns regarding the widespread expansion of pork exports. The global oversupply of feed grains will continue as long as technology keeps increasing yields and farm policy keeps land in production. A reversal in farm policy to set asides would raise grain prices and lift break-even levels for livestock producers. That would hurt the industry's prospects. A change in farm policy to completely free markets will prompt more planting of those crops where prices start to rise. If cotton producers, for example, decide that it is uneconomical to grow in the United States, the Corn Belt could expand. This will keep feed prices capped, assuring more consistent costs for domestic swine producers, but also for foreign competitors. Freer markets and freer trade promote more specialization. The U.S. may end up exporting a few key crops and unique products like grain-fed beef, and importing others traditionally raised here. Its unclear at this time whether pork will be more globally traded than it has been and whether its competitive advantage lies in the United States.

Concluding remarks

The major message of the recent Asian financial crisis is that U.S. agriculture may now be more sensitive to swings in world economic growth than to domestic demand. Farming's fate is tied to trade, though increasing exports will be difficult even as world demand improves; too much world capacity has been added during the last decade and a strong dollar will raise the competitive advantages of other nations.

The swine industry faces some uphill struggles, but different ones than it faced in the past. This industry has faltered recently—not because of the Asian crisis, but in spite of it. This domestic-driven industry could have benefited from the world economic slowdown because of rising U.S. meat consumption, lower feed costs, and competitive inroads. Exports, still a small portion of total output, actually rose as other markets more than made up for reduced shipments to parts of East Asia. All should have helped the industry, but it happened at the same time as many more large operators flooded the market with an abundance of hogs and as meat packing capacity was not yet equipped to handle the onslaught. Once prices recover, there will be even fewer and larger operators. They will be better placed for globalization, but still facing the same competitive and policy-induced headwinds as the rest of U.S. agriculture.

References

Schoenholtz, Kermit L.; *Global Economic Outlook and Strategy*; New York, NY; SalomonSmithBarney; July 21, 1999

The International Bank Credit Analyst; Montreal, Que; BCA Publications, Ltd.; July 1999

Ackbarali, Ken; Asia Revisited – Recovery Widespread in 2000, *The Economic Edge*; Los Angeles County Economic Development Corporation; Third Quarter, 1999

Latin American Economic and Strategic Perspectives; Stamford, CT; Warburg Dillon Read LLC; July 1999

1999 U.S. Agricultural Outlook; Ames, IA; Food and Agricultural Policy Research Institute; Iowa State University, University of Missouri-Columbia; January 1999

The State of the Agricultural Economy; St. Louis, MO; Doane Agricultural Services; July 29, 1999

Agricultural Outlook, Washington, DC; Economic Research Service, United States Department of Agriculture; June/July 1999

U.S. Agricultural Trade Update; Washington, DC; Economic Research Service, United States Department of Agriculture; July 23,1999

Wheat and Grain Market Review, Omaha, NE; ConAgra, Inc; 1999

Livestock and Poultry Market Review; Omaha, NE; ConAgra, Inc; 1999

Livestock, Dairy and Poultry Situation and Outlook; Washington, DC; Economic Research Service, United States Department of Agriculture. July 27, 1999

Hog Market Outlook; *Doane's Agricultural Report*; St. Louis, MO; Doane's Agricultural Services; July 2, 1999

Pottoroff, Rich; Production Decline Signals Higher Prices Ahead; *Ag Lender*; July 1999

McBride, William D. *Change in U.S. Livestock Production, 1969–1992*; Washington, DC; Rural Economy Division, Economic Research Service, United States Department of Agriculture; July 1997

Large Free Stocks Pressure Prices; *Doane's Agricultural Report*; St. Louis, MO; Doane's Agricultural Services; June 18, 1999