ESSAYS ON ISSUES

THE FEDERAL RESERVE BANK OF CHICAGO

DECEMBER 2006
NUMBER 233b

Chicago Fed Letter

Globally competitive agriculture and the Midwest: A conference summary

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On September 29, 2006, the Federal Reserve Bank of Chicago and the Chicago Council on Global Affairs held a joint conference on the linkages between global competition in agriculture and the Midwest. This conference brought together industry experts and academics involved in agriculture to discuss the effects of globalization on the Midwest economy.

Materials presented at the conference are available at www.chicagofed.org/news_and_conferences/conferences_and_events/2006_global_agriculture.cfm.

At the conference, titled "Globally Competitive Agriculture and the Midwest," participants examined the global playing field for midwestern agriculture, explored the implications of globalization for economic growth in the Midwest, and discussed the influence of government policies on the global competitiveness of agriculture in the Midwest. A common thread of the conference was that world markets are crucial for Midwest agricultural growth and that U.S. farm policy needs to change with the times in order to promote continued growth for the Midwest.

Midwest agriculture in the global arena

In the first session, three presenters argued that global markets are important for Midwest agriculture and will continue to be so. David B. Oppedahl, Federal Reserve Bank of Chicago, emphasized that U.S. agriculture relies twice as much on exports as does the overall economy, with food and agricultural products making up 7.5% of total exports in 2005. Moreover, the value of agricultural exports continues to set records, though imports have as well, significantly reducing the surplus in agricultural trade. Economic activity generated by agricultural exports had grown to $152 billion in 2004, creating 825,000 full-time jobs in the U.S. The Midwest's[1] total share of agricultural exports in FY2005 was 18%, with a much larger share in categories such as corn and soybeans. While Midwest agriculture faces challenges in the global arena, the comparative advantages of the Midwest can propel agricultural exports to higher levels through a focus on consumers around the world and innovations in technology and marketing.

Michael D. Boehlje, Purdue University, focused on the role of globalization in the agricultural economy. Globalization has resulted in larger markets for agricultural products from the Midwest, with continuing expansion expected in the years ahead. Product trade as a percentage of world gross domestic product (GDP) has not changed a lot, but there has been strong growth in the trade of value-added products. In particular, research shows that higher per capita gross national income correlates to a higher share of animal protein in peoples' diets; the larger markets abroad generated by globalization have boosted demand for livestock, feed, and meat exports. Key drivers of globalization include: the movement toward more market-based economies; the expanded geographic reach of information technology, which lowers the costs of informing and attracting customers; improved transportation and logistics, especially through containerization; evolving marketing strategies to reach new markets undergoing dietary transitions (particularly in Asia); capital markets channeling investment from Europe and North America to other parts of the world; growing technology markets that integrate indigenous and global technologies; linkages and integration between industrial and financial trade, which make agriculture inseparable from the rest of trade; and global sourcing and selling of goods and services. In the face of these global trends, there is a fundamental conflict between trade and farm policies in the U.S., possibly resulting in retaliation for distorting agricultural trade. Ultimately, the question arises of what impacts will result from this conflict and how broadly they will spread.

The next speaker, Kyle W. Stiegert, University of Wisconsin–Madison, looked at the implications of the expansion of supercenters in the global food industry. Supercenters (a larger retailing format for groceries) have grabbed market share in the U.S. grocery business, and that format has begun to expand overseas, too. Although the expansion creates larger markets, it also results in price pressures that can affect the efficiency of the food industry and agricultural profitability. Stiegert's study[2] of supercenter price effects in the U.S. indicated no initial change in retail prices from the entry of a supercenter, though increasing concentration in grocery markets did eventually lead to higher prices. Stiegert noted that higher concentration stemming from the supercenter format could increase retailers' buying power, ultimately promoting greater use of contracts with food processors, more contract farming, and increased farm consolidation. Different economic environments, including distinct antitrust frameworks, will likely foster different outcomes for various nations.

Impacts of globalization on the Midwest

In the second session, three presenters discussed the impacts of globalization on Midwest agricultural industries. John Hinners, U.S. Meat Export Federation, dealt with issues related to the relatively faster growth in red meat trade compared with flatter gains in U.S. meat consumption. Spurred by growth in world population and income in recent decades, red meat trade has increased dramatically, even after accounting for disrupted beef exports in late 2003. (Pork exports partly filled the void, rising to 15% of U.S. production.) Moreover, a focus on global consumers requires branding and traceability to maximize premiums for producers. Also, a greater reliance on export markets has heightened the importance of issues related to disease, biosecurity, technology, and transportation. Another important benefit of meat exports is price premiums from parts (like tongues) of the animal not favored for consumption in the U.S. Not only do livestock producers gain from exports, but soybean and feed grain producers benefit as well from higher prices based on the extra demand to fulfill exports of meat. In order to maintain its competitiveness, the U.S. red meat industry must focus on its advantages—i.e., quality, cost, consistency, diversity, flexibility, and production capacity. Global competition requires producers to have an export-oriented mindset and to embrace trade-enhancing policies, including traceability in global meat supply chains.

Paul W. Gallagher, Iowa State University, shared his research on global aspects of the ethanol industry, especially important for the Midwest as production of ethanol from corn booms in the region. The ethanol demand curve for the U.S. has two parts—ethanol as a fuel additive and ethanol as a gasoline substitute, with both parts incorporating subsidies for ethanol. When oil prices increase, both parts of the demand curve shift higher. When ethanol supply expands enough to meet the demand for ethanol as a fuel additive, then the price of ethanol in the U.S. will drop and be set on the portion of the curve where ethanol competes with gasoline—probably when biomass becomes an economical feedstock. If oil prices remain high enough, the ethanol industry will continue to expand corn-based production and develop biomass-based capacity, providing profits and multiplier impacts at the local level in the Midwest. Although ethanol imports become more attractive as well, the domestic market has protection via an import tariff of $0.57 per gallon and a tariff quota. Sugar is the primary feedstock for ethanol on the global market, so sugar prices play a key role in determining the cost of importing ethanol. Analysis of material, energy, and operating costs of ethanol production from corn versus sugar showed no statistically significant difference in production costs. So, under a free trade scenario, ethanol flows would follow cycles based on feedstock prices and exchange rates. Yet, government intervention in ethanol markets can be supported due to consumption externalities and infant industry protection for biomass, especially if world oil prices return to relatively lower levels.

Matt Hancock, Food and Candy Institute, explored another Midwest industry affected by sugar prices. The candy industry has a cluster of firms near Chicago. Sugar accounts for 10% of the materials used in the production of nonchocolate confectionery, so lower sugar prices would benefit candy manufacturers. However, sugar costs are less than several other nonlabor costs for candy manufacturers. Moreover, labor costs are the largest component of production costs for candy. So, lower wages elsewhere in the world

Release of Chicago Council on Global Affairs report

The conference also included the Chicago release of the report of the Agriculture Task Force sponsored by the Chicago Council on Global Affairs, titled *Modernizing America's Food and Farm Policy: Vision for a New Direction*. The co-chairs of the task force were Catherine Bertini, former executive director, World Food Program, The United Nations; August Schumacher Jr., former Undersecretary of Agriculture for Farm and Foreign Agricultural Services, U.S. Department of Agriculture; and Robert L. Thompson, Gardner Chair in Agricultural Policy, University of Illinois at Urbana–Champaign. The Chicago Council's task force focused on U.S. agriculture policy and ways to promote the competitiveness of U.S. agriculture for the 21st century. For more information on the task force and the complete report, see: www.thechicagocouncil.org/taskforce_details.php?taskforce_id=1.

become a major factor in relocation decisions for candy manufacturers. Illinois maintains a competitive edge with a skilled, highly productive work force, combined with an efficient base of local suppliers (63% of supplies can be purchased in the state). Reducing sugar prices by altering agricultural policy would help an industry under pressure from tight margins, as a 20% drop in sugar prices would increase profits by 1% as a share of candy sales. Thus, higher sugar prices in the U.S. stemming from agricultural policy may induce candy makers to shift production elsewhere, but cost increases in other inputs might more than offset cost reductions due to lower sugar prices.

The future of Midwest agriculture amid global growth

In the third session, two presenters assessed the implications of global growth for the future of Midwest agriculture from different approaches. David Freshwater, University of Kentucky, considered the historical context and changing nature of rural America before laying out some directions for future policies. Before the 20th century, U.S. development policy was agricultural policy because farmers were a majority of the population, major infrastructure improvements aided agriculture, and agriculture was export oriented and globally competitive. Farm export shares increased until the 1930s. In the Great Depression, low farm income and low exports led to new farm policy, which still guides the debate into the 21st century. However, rural America has changed dramatically. Today most rural Americans are not farmers. Farming and rural America's shares of both population and GDP have continued to decline. Though trade is still important for rural America, the terms of trade have been hurt by globalization. In addition, an increasing percentage of foreign migrants, particularly Hispanics, has affected rural communities, especially through employment in agriculture and related processing. Even given these changes, farm household incomes and wealth have outpaced U.S. averages, with most of the income coming from nonfarm sources (except for the largest 7% of farms). So, most farm families have diversified risk without the aid of government programs. Over the years, farm policy has lost its link to a majority of farmers, since most farmers now produce unsupported products and a smaller number get most of the commodity payments. For landowners that get commodity payments, production decisions become distorted due to a lesser market orientation, driving up costs for all producers and complicating trade negotiations for all of agriculture. Rural communities must be competitive in order to survive, but rural America has become a bargaining chip in trade negotiations. Thus, according to Freshwater, farm policy should center on farm income stabilization, environmental factors, and urban amenities. In this way, farm policy can meet the needs of all farm families, not just a subset, while maintaining globally competitive agricultural production.

Next, Patrick Westhoff, University of Missouri and Food and Agricultural Policy Research Institute (FAPRI), discussed FAPRI's agricultural outlook and whether biofuel developments have created a "new world" for farmers. Westhoff pointed out that corn used for ethanol production has grown dramatically in recent years, closing the gap on corn used for export. FAPRI forecasted that corn used for ethanol, growing 116%, would be twice the size of corn used for export in five years. In the FAPRI projections, during this period, corn acreage rises almost 10%, while soybean acreage drops 4.5% and wheat acreage falls 1.3%. The resulting increase in corn production would be 12.5%. The impact on livestock feeding in the U.S. would involve a 2.1% decline in corn usage and a 1.8% increase in soybean meal feeding, topped by an 81% jump in co-products of ethanol production. Greater corn demand would boost prices for feed grains, with ethanol co-products holding down corn price increases and pushing down soybean meal prices due to substitution. FAPRI projected improvement in net income to corn farmers during the next five years, though higher production costs would diminish the gains from crop receipts. The implications for the livestock sector vary by species and distance from ethanol plants. Feeders using primarily grain, especially for hogs and cattle far from ethanol plants, would face higher costs. Feeders using mostly soybean meal or ethanol co-products should benefit, at least in relative terms. Cattle and hog prices would remain below the relatively strong recent levels. So, foreign buyers may get squeezed out of U.S. grain markets, although they may find better deals in meat and soybean products. Biodiesel growth could alter the projections for soybean products. Higher energy prices have hurt the farm sector in the short run, though they have provided new opportunities for biofuels in the longer term by linking grain, vegetable oil, and energy markets over time. There is the potential for fundamental changes, providing Midwest agriculture with another engine for growth besides exports.

What agricultural policies best promote Midwest growth via global markets?

The agricultural policy issues stemming from globalization and the challenges for Midwest growth were the focus of the last session. Gary R. Blumenthal, World Perspectives Inc., addressed the limitations of using farm policy as a means to achieve a competitive agricultural sector. First, he pointed out the faulty premises of farm policy. Support for

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Chicago Fed Letter is published monthly by the Research Department of the Federal Reserve Bank of Chicago. The views expressed are the authors' and are not necessarily those of the Federal Reserve Bank of Chicago or the Federal Reserve System.

ISSN 0895-0164

farmers has only slowed their numerical decline; the number of farms has continued to fall during the past 40 years. Furthermore, farm income would get better support by decoupling crop decisions from government payments due to the benefit of volatility in market prices; plus, there would be less harm to global competitiveness from government payments capitalized into farmland values. Current farm policy has not ensured a healthful food supply, as evidenced by obesity remaining a major health issue here. U.S. fruit and vegetable production has been flat, whereas imports have risen 50% in a four-year period, contributing to healthier eating habits. The goals of rural development and green space stewardship have also contributed to reduced competitiveness by reducing commercial crop production. The foremost trade driver is capacity, helped by trade agreements establishing rules. Under rules-based trade, reductions in government policies generate increased competition. The Midwest has fundamental competitive advantages to exploit in world markets. The capital and resources (especially land and water) of the Midwest undergird these competitive advantages, especially when combined with available technologies and management capacity. After all, farmers today are highly educated and entrepreneurial, and they have readily transferable skills. Government subsidies have stifled entrepreneurial incentives for many farmers, but the creation of competitive advantages in the future will require challenging comfort zones and making strategic investments. Farm policy can foster job growth in food processing and other agricultural industries—traditional strengths of the Midwest. Blumenthal has observed forces for change in farm policy that give him hope the next farm bill will improve U.S. agricultural competitiveness.

Robert L. Thompson, University of Illinois at Urbana–Champaign, laid out ways global markets can lead to rural growth and how trade policy can assist this process. Expanding world trade allows exports to grow, and the only large potential for growth is found in low-income countries with projected gains in population and income. Globalization produces increased integration of economies, creates new opportunities, and exposes previously isolated markets to competition. Agricultural competitiveness for commodities (the lowest-cost supplier wins) differs from that for differentiated products (sold based on quality, design, or innovation), though public research funding can enhance both. The success of U.S. agriculture in boosting output by 2.6 times in five decades, while using fewer inputs, positions the U.S. to expand future exports. Given this high productivity, the U.S. exports over one-quarter of its production of many agricultural commodities. However, the inability of low-income countries to export the products where they have competitive advantages slows poverty reduction and dampens world agricultural trade, making a more open trading environment vital to global growth. Negotiations can create a more level playing field for trade, but the U.S. can benefit from changing farm policy even without a trade agreement, since farm programs have not met their stated objectives. Moreover, the U.S. already is at risk for trade litigation over farm programs. Moving subsidies to non-trade-distorting mechanisms is the key change needed to pry open greater market access for U.S. and Midwest agriculture.

Thompson's remarks were in line with a shared theme of the conference: Namely, global trade is vital for Midwest growth, and U.S. farm policy must catch up to the realities of globalization in order to foster expanded exports. So, the best farm policy is a strong rural development policy, which allows Midwest agriculture to become even more competitive in the global economy.

[1] The Seventh Federal Reserve District comprises all of Iowa and most of Illinois, Indiana, Michigan, and Wisconsin; in this particular presentation, Oppedahl defined the Midwest as the entirety of these five states.

[2] Kyle W. Stiegert and Todd Sharkey, 2007, "Food pricing, competition, and the emerging supercenter format," *Agribusiness*, Vol. 23, No. 3, Summer, forthcoming.