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Trade Horizons for California Agriculture

by

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The landscape of international agricultural markets will change rapidly in the coming decade, and California's farmers are positioned to reap unprecedented gains from this process. A unique confluence of political, technological and demographic forces arising with globalization will open new markets and expand incentives for innovation and long term productivity growth. Ê

Globalization is already a household word, but around the dinner tables of rural California, it usually arises in conversation about inexpensive consumer goods. This perception will be changing soon, as U.S. agriculture emerges from a cocoon of trade barriers and takes flight across a wide new horizon of global export opportunities. The current round of World Trade Organization (WTO) negotiations represents a watershed event for global agriculture. For the first time in history, significant agricultural protection is on the bargaining table, including over \$300 billion of direct and indirect farm support in industrialized countries, those from the Organization for Economic Cooperation and Development (OECD). Substantive agreement on reducing the trade distorting components of these programs would transform international food markets in ways that are only beginning to be understood. Producers around the nation are understandably concerned about reduced support levels. Several important factors, however, indicate that California agriculture could benefit dramatically from expanding international trade horizons.

Global Farm Support versus Global Competitiveness

As a whole, United States agriculture stands to gain from further trade liberalization for two reasons: 1) U.S. average protection levels for agricultural products are lower than those of our major trading partners (Europe, Japan and Korea), and 2) The way we support agriculture at home is less trade distorting. As indicated in Figure 1 on page 2, U.S. and European agriculture currently enjoy significant farm price support, but Europe is well ahead (in support per dollar of crop value as well as total support). Indeed, the U.S. is closer to the so-called Cairns Group of internationally competitive agricultural exporters (e.g., New Zealand) than to Europe and high income Asia, and thus will be a net beneficiary of multilateral reductions in agricultural protectionism. Japan and Korea use very high import tariffs to protect rice and other crops. In recognition of these facts, the U.S. trade representative is working hard to level the international playing field for food trade, and this process will further improve the competitive position of U.S. farmers.

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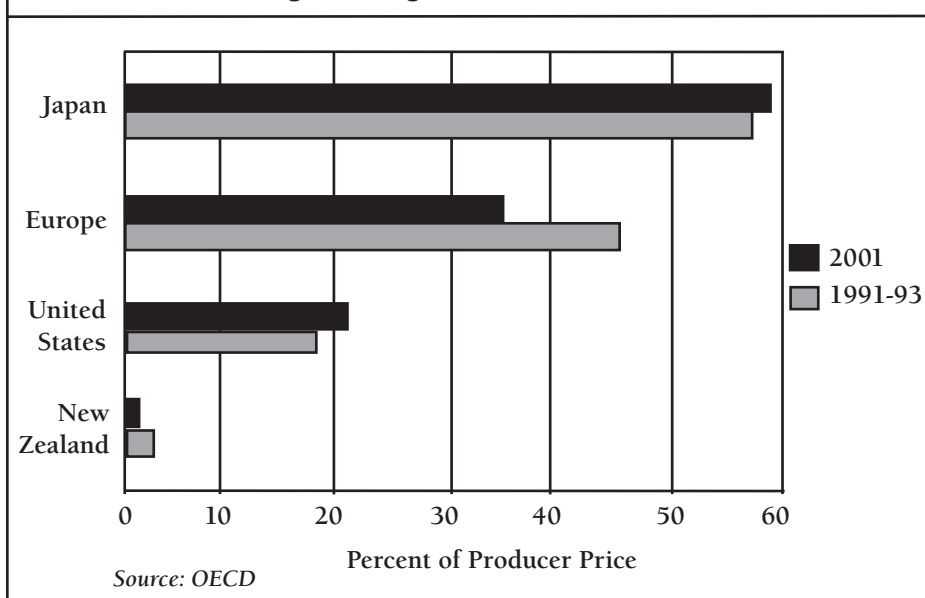
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Figure 1. Agricultural Subsidies

By the same token, average California farm support is below national averages, with producer subsidy equivalents (PSEs) in many of its leading crops that are a fraction of those covering mainstream cereals and other Midwestern staples. Moreover, California farmers have almost no reliance on prohibitive trade interventions like those sheltering domestic peanut and sugar producers. Indeed, Californians are already effective international competitors in a broad spectrum of specialty crops with very low domestic subsidies and little or no trade protection. For these reasons, we can expect California to capture a disproportionate share of the competitive advantage from liberalizing global food trade.

A final source of competitiveness, at least over the short and medium term, is the U.S. exchange rate. After decades of record trade deficits and countervailing foreign capital inflows, the U.S. appears to be undergoing a significant structural adjustment. Many experts agree that the dollar has begun a significant downward trend that will probably only stabilize when the historical imbalances come back to more sustainable levels. Forward currency markets have already priced a 10 percent depreciation of the dollar over 2003, but many experts believe this is conservative. Of course the silver lining to a declining currency is increased export competitiveness, and this fact should not be lost on California's farmers. Because they have very low import content, U.S. agricultural products will enjoy the full

advantages of lower foreign currency prices against most of our established foreign competitors.

Silicon Valley in the Central Valley?

During the last decade, California has become an emergent leader in development and propagation of agricultural biotech and precision farming methods. Both the hardware and software supporting these technologies are increasingly home grown, as dedicated state and federal commitments to research, extension

and implementation have accelerated innovation and productivity, stimulating higher rates of adoption and farm profitability. The end result is a virtuous circle of discovery, implementation and profitability that in many ways resembles our own Silicon Valley. Indeed, there are already a myriad of direct linkages between the Central and Silicon valleys, particularly across technology markets and within universities.

The practical significance of this analogy is already apparent within California, where farm efficiency continues to rise, resources are being used more sustainably, and quality and safety consistently improve. What we have accomplished at home, however, portends great opportunities abroad if we choose to translate our experience into global entrepreneurship. Now it is time to leverage this relationship and globalize California's agricultural technology. Just as California became a leading innovator and exporter in computer technology, so can biotechnology and precision farming techniques confer benefits on farmers and food consumers around the world. This example could be a blueprint for the internationalization of the state's agricultural enterprise.

Like the computer industry, California's technology edge in agriculture is not merely a competitive export advantage, but also an agenda for profitable outbound foreign investment. California based agrotech businesses have much to offer countries that are more technology and resource constrained,

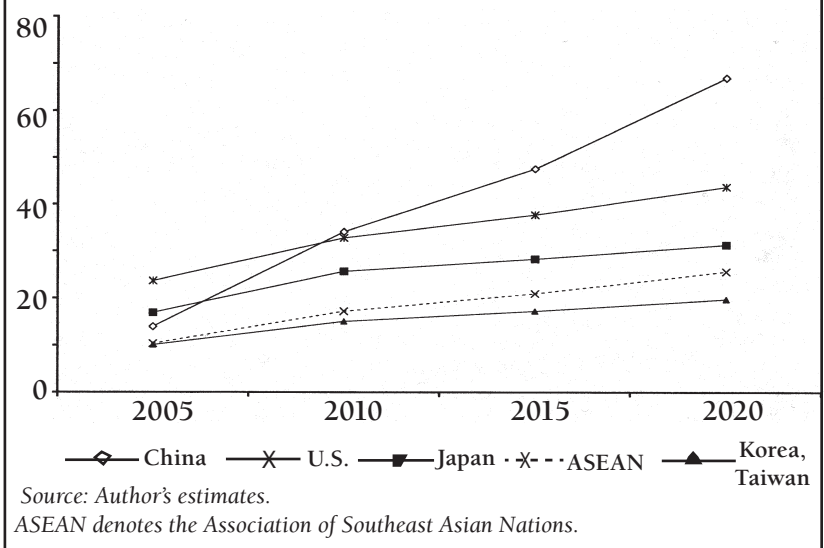
particularly fast growing and populous economies like China, who need to expand food capacity in marginally productive land or are dependent on other scarce resources (energy, water, etc.). Technology-driven foreign direct investment like this became a hallmark of our own IT revolution of the last two decades. U.S. technology firms leveraged domestic innovation into first-mover advantages that rapidly expanded their opportunities in foreign markets. Given our leadership in so many aspects of agricultural technology, the same opportunity presents itself in farming. If they are as determined to become national and global technology leaders, agricultural businesses, researchers and entrepreneurial visionaries in California should emulate this model.

Emergent Asian Food Demand

Until now, discussion has focused on supply side issues, yet the demand side of the world food equation is changing at least as fast. As OECD populations stabilize numerically and begin to age, their food demand levels off and shifts away from carbohydrates and fats. These trends are not rapid enough to upset global food markets, but demand shifts in other parts of the world are potentially more dramatic. In populous Asia generally, and China in particular, food requirements are expanding against a backdrop of serious capacity constraints, revealing the prospect of rapidly emerging new markets for U.S. farmers.

My own forecasts for Chinese economic growth indicate that this country could become the world's largest food importer by 2010 (Figure 2). To see how such a trend can develop, we need to take a closer look at the way food demand changes with income. Economists have long recognized that consumers spend a larger share of their income on meat and other "luxury" foods as their incomes rise, while the share going to subsistence foods (mainly staple starches) declines. The former foods are usually more expensive because they are more resource-intensive. Meat, for example, is a resource-intensive source of protein because one gram requires an average of 20 grams of vegetable protein (feed) to produce it.

Figure 2. Forecasted Agricultural Imports (billions of 1997 U.S. dollars)



Combining these two facts leads to a prediction that, even if China's population remained constant, its projected income growth could lead to food demand that required doubling its current agricultural capacity. At the same time, the supply of arable land in this country continues to shrink because of displacement, as farmland is converted to industrial use in the fast growing (but agriculturally most productive) southern coastal region. China has surprised many observers with its productivity growth, particularly in small animal production. These activities, concentrated in the fast growing southern export zones, are already encountering serious constraints, however, including waste management and public health standards. There appears to be significant promise for ruminant production in Western China, but it is very unlikely that this will develop rapidly enough to meet emergent domestic demand. In any case, even optimistic Chinese growth scenarios cannot be realistic unless they anticipate heavy infusions of imported agricultural technology, capital, and, unavoidably, ever larger volumes of imported products (especially cereals and other feed products). Despite its vast labor pool, China remains a very resource constrained economy, with less arable land per capita than any other populous nation.

China's growing food import dependence will be a windfall to Midwestern producers of meat, cereals and soybeans, but California will also be a major

beneficiary in higher value products such as fruits, nuts, salads and other specialty crops. Because these are more often final consumer goods, California's crops will also capture more value added for the state than primary foods such as wheat and soybeans. Meanwhile, imports of Chinese and other Asian labor intensive crops, like garlic and specialty foods, may continue to rise, but will be more than offset by expanding exports because of sharply differing growth rates of demand in the two economies.

High Income Asia

Another expanding trade horizon for California agriculture is high income Asia, especially Japan and Korea. These are already well-established trading partners, but import protection in both countries continues to forestall many opportunities for U.S. farmers (see Figure 1). Most significant among these commodities is, of course, rice, imports of which are virtually prohibited in both economies. Japanese farmers provide 93 percent of the rice consumed in their country, and consumers currently pay about five times the world price for this commodity. Japan has a small concessionary rice import scheme, but then sends half the imported rice back out of the country as food aid to developing countries. In Korea, self-sufficiency is also the primary objective rice policy, with the OECD's highest subsidy rate on this commodity (73 percent of the producer price). If the current WTO round is successful, the world's second largest economy and its more affluent neighbors will begin buying their primary staple food on world markets, and California rice farmers can expect to see the results immediately. These relatively affluent consumers will experience a positive income effect from discounting an essential component of their diet, and can be expected to spend part of the savings on other, higher value agricultural products. Because of its success in expanding specialty food production, California again will be in a position to capture the benefits.

Conclusion

International food trade is probably as old as the concept of nation itself, yet it is fair to say that the first century of this millennium will see unprecedented change in global agricultural markets. Technology diffusion, rapid proliferation of mass food marketing (both restaurants and

supermarkets), continued international supply chain decomposition in food production, and shifting patterns of global food demand are all contributing to a changed landscape of agricultural trade. At the same time, WTO initiatives to level the international playing field promise to accelerate U.S. farm exports dramatically. Provided they do not isolate themselves from this process, California's farmers can reap huge benefits from the globalization of agriculture.

For additional information, the author suggests:

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