

Conclusions

Rapid growth in the Indian poultry industry is being driven by a combination of rising incomes, a young and urbanizing population, and declining real poultry prices. The expanding role and influence of poultry integrators, primarily in southern and western India, have been key factors in both boosting production and reducing prices. The integrators appear to have helped increase production efficiency and significantly reduce marketing margins and consumer prices. The pace at which integrated poultry operations spread in the West, East, and North will be a key to the future expansion of India's poultry industry.

The pace of transition from a live-bird market to a chilled/frozen product market will likely be a factor in the future expansion of poultry sector integration. At present, live-bird sales dominate the market, limiting the scope for exploiting regional comparative advantages in production within the country, and for using storage, domestic movements, and international trade to stabilize supplies and prices. A shift away from live-bird sales to mechanical and more hygienic processing may also have public health benefits, although there is little evidence that current practices create health problems.

Available data on production costs and prices in India and other countries suggest that India is an internationally competitive producer of poultry meat. Producer prices of whole birds in India, while higher than in Brazil, compare favorably with those in the United States and in other Asian countries. In this regard, Indian producers have generally benefited from improved poultry management practices and, particularly, ready local supplies of corn and soybean meal at internationally competitive prices.

If recent trends in poultry and egg production are sustained, growth in feed demand, primarily corn and soybean meal, is likely to outpace gains in domestic production. For corn, variable domestic production, expanding feed use, and tariff and quota restrictions on corn imports could combine to constrain growth in both the poultry and egg industries, raise consumer prices, and slow consumption. For soybean meal, the Indian poultry and egg industries benefit from local surpluses and ready availability, but rising internal demand is likely to erode exports.

The expansion of the poultry industry opens a new set of policy issues to be addressed by the government, ranging from public health issues, to tradeoffs between poultry producers, feed producers, and consumers, to appropriate tariff and nontariff policies for imports of poultry and industry inputs. Although the traditional policy priority has been to promote self-reliance, it is unclear how future policy will weigh the competing interests of, among others, poultry and egg producers, consumers, and feed producers.

At present, analysis of developments in India's poultry sector is made difficult by the poor availability of reliable and timely official data on such variables as production, consumption, feed use, and production and marketing costs. If the Indian poultry industry is expanding as rapidly as industry sources indicate, poultry will quickly become an important component of both farm income and urban and middle-class diets. The consequent expansion of demand for poultry inputs, particularly feeds, may soon pressure local supplies, providing opportunities for production or trade in these products. The implications of this growth are likely to create demand for better data and information to support public and private sector decisionmaking.

The analysis in this study suggests that the process of poultry sector integration yields substantial potential benefits for the sector and, particularly, consumers of poultry meat. However, when shortages of feed emerge, there are likely to be significant adverse effects on producers and consumers of poultry meat and, particularly, eggs. Although domestic corn producers may gain from higher prices associated with import restrictions, these gains must be weighed against losses to producers and consumers of poultry meat and eggs, as well as to the potential international competitiveness of Indian poultry production. Development and adoption of technology for competitive domestic feed production would allow all producers and consumers to benefit from poultry sector expansion.

Expansion of the poultry industry in India creates potential trade and investment opportunities for U.S. agriculture. Although the potential for poultry meat imports appears limited, growth in demand for corn and soybean meal will likely outstrip gains in local production, creating demand for corn imports and reduced exports of soybean meal. Corn import policy

and productivity gains in these crops will help determine the size of the trade impacts. Although foreign direct investment has not been significant so far, India's fast-growing, competitive, and potentially large industry offers investment opportunities in such activities as breeding, medicines, feed, and equipment, as well as integration and processing. Foreign investment in these activities is permitted but is constrained by market and policy uncertainty and poor infrastructure.

Developments in the Indian market carry potentially useful lessons for understanding the emergence of poultry markets in other developing countries. Income growth and indigenous meat demand preferences are obviously key elements in gauging potential. But cost-reducing integration of production and marketing activities can also be important in spurring demand and output. Finally, availability of corn and soybean meal at competitive prices, either through local production or imports, is a key to growth and competitiveness.