

Poultry Marketing and Prices

Most poultry meat in India is marketed to consumers in the form of live birds, with only a small share of output now marketed as chilled, frozen, or further processed products. The costs of moving live birds, including transport, shrinkage, and mortality costs, severely limit interregional movements. As a result, Indian poultry markets are regional, rather than national, in scope and there is limited potential for low-cost producers to market their product in higher cost regions. The limited information on costs and market price behavior collected for this study suggests that the presence of poultry integrators in a region has a significant impact on the returns received by poultry producers and the margins between producer and consumer prices. For example, retail prices and producer-retail margins were found to be significantly higher in the northern region, where poultry integrators are least active.

Live-Bird Preference

The Indian broiler sector operates almost completely as a live-bird market, with poultry retailed as live birds and slaughtered for customers in retail shops. This practice is in accordance both with the lack of cold chain facilities, which limits capacity to market chilled or frozen products, and with consumer preference. Consumers have more confidence in the quality of fresh poultry meat that is slaughtered in their presence; frozen or chilled meat may have problems that can only be detected when it is thawed. Even when refrigeration is available, consumers lack confidence in chilled or frozen meat because of the unreliability of electrical power. The preference for fresh meat also extends to the belief that it is superior in taste and texture.

Poor sanitary conditions are common in India's retail poultry shops. In general, however, consumers and merchants share a belief that there is minimal health risk because the Indian style of cooking kills bacteria that could otherwise lead to food poisoning or disease. Most Indian meat preparations are well cooked, and some locally used spices are reportedly effective in killing foodborne bacteria. Aside from a recent campaign to improve sanitary conditions in poultry shops in New Delhi, there is no evidence that consumers or public health officials are greatly concerned with current practices. The move to license

and inspect poultry slaughter within Delhi appears to have been motivated more by the urgings of the nascent poultry processing industry than by any documented public health concern associated with the quality of the product or the disposal of slaughter waste.

The dominance of the live-bird market restricts the movement of poultry because of the high transport, mortality, and shrinkage costs associated with moving live birds over India's poor roads. In particular, the live-bird preference severely limits movement of poultry from low-cost producing areas, particularly in southern and western India, to higher cost areas, such as northern India. In a market where poultry consumers are sensitive to price, this limitation can slow the growth in both consumption and production of poultry.

The consumer preference for live birds also restricts the potential for poultry imports, since imports would have to be frozen or chilled. Although there is some demand for frozen or chilled poultry products by institutions (hotels, fast food restaurant chains) and, to a lesser extent, high-end urban consumers, this small segment of demand is currently met by the small domestic processing sector.

Processed Poultry Demand

Processed poultry products, including chilled or frozen poultry, as well as further processed items, currently account for a small share of urban household consumption and a negligible share of rural consumption. Chilled whole birds and parts can be found in markets and higher end shops in major cities and are also consumed in institutional settings, including restaurants and hotels. Frozen birds and parts are more difficult to find at the retail level but can be found in shops in major cities, and are also marketed by processors directly to hotels and restaurants. Frozen, further processed items, such as heat-and-serve dishes, can be found in high-end shops in the major cities.

It is difficult to determine the exact size of the chilled bird market. The Ghazipur market near Delhi, the largest poultry market in India, provides about 40 percent of the birds consumed in Delhi, and about 60 percent of those birds are dressed in a nearby facility.

The remainder of Delhi's poultry demand is supplied by smaller markets, where a somewhat smaller share of birds is sold in dressed form. With these rough numbers, dressed, chilled birds may account for 25-35 percent of consumption in Delhi, with most of this attributed to institutional customers. None of the other major urban centers has a large central market from which similar estimates can be taken. However, it is reasonable to assume that this share might be a little higher in such cities as Mumbai and Bangalore, where incomes are higher, and somewhat lower in Calcutta, Chennai, and Hyderabad, where incomes are lower.

The size of the frozen poultry market can, perhaps, be more accurately measured because of the relatively few firms involved in this industry segment. Dressed and frozen products are produced by about 12 firms operating semi- or fully mechanized dressing plants and freezing facilities. Based on information from three of the firms, plus estimates included in the USAPEEC study, frozen poultry products produced and consumed annually in India total about 12,000 tons, or about 1-1½ percent of total consumption, depending on the estimate of total consumption used.

The live-bird market will likely continue to dominate in India for the next few years. Institutional demand for chilled and frozen birds will continue to expand, but movement by household consumers to chilled or frozen products is likely to be slow. Chilled meat is more acceptable to consumers than frozen meat, and growth in consumption of chilled meat may help facilitate the transition toward a frozen bird market. Most of the poultry integrators in southern, western, and eastern India are already marketing dressed and chilled products and have plans to expand sales to both institutional and retail customers.

Current and future sources of growth in the institutional segment include hotels, restaurants, and fast food establishments, including McDonald's, Pizza Hut, Dominos, and many indigenously developed fast food brands. In the retail segment, growth is likely to be fostered by the emergence of a number of new approaches by poultry integrators, including the establishment of integrator-owned or franchised chilled/frozen poultry shops and sales counters in existing food shops, and home delivery services for chilled/frozen poultry products. The recent emergence of supermarkets, now mostly in southern India, is also likely to support growth in the retailing of chilled/frozen poultry.

Poultry Processing

Traditional manual poultry processing still accounts for roughly 98 percent of all consumption in India. The traditional sector, as defined here, consists of manual dressing of birds, either in bulk by wholesalers or individually in retail shops. The Ghazipur wholesale market near Delhi may have the largest such dressing facility in the country, manually dressing roughly 60,000 birds daily. A similar, though smaller, facility exists near the Crawford market in Mumbai and in other urban market areas around India. No data exist with which to reliably estimate the share of consumption processed manually by wholesalers, but, as indicated earlier, processing may account for 25-35 percent of total consumption. Most of the remaining 65-75 percent of poultry consumption is dressed manually in retail shops or by consumers.

The traditional poultry dressing "facilities," whether at the wholesale or retail level, are completely manual, with no apparent sanitary measures taken for either the dressing floor or the workers. Although local health regulations exist, there is no evidence that any licensing or inspection regulations are effectively enforced. The Ghazipur facility near Delhi has no refrigeration facilities and dressed birds are stored in piles in the open until loaded into "refrigerated" vehicles for transport. Refrigeration for transport may consist of anything from a piece of ice on the back of a bicycle or scooter rickshaw to a mechanically refrigerated van. Refrigeration facilities for dressed birds do, however, exist in the Crawford market in Mumbai, as well as in higher end wholesale and retail markets in urban areas.

In the Ghazipur market, the cost of dressing is Rs0.50 (about 1 U.S. cent) per bird. At the Crawford market in Mumbai, dressing cost is Rs0.50-1.00 (about 1-2 U.S. cents) per bird.

The modern poultry processing sector consists of 10-12 firms that, altogether, process about 12,000 tons of poultry, or 1-2 percent of consumption, annually. The plants are all operated by poultry integrators and are located in or near major urban areas, including Mumbai, Calcutta, Hyderabad, Bangalore, and Coimbatore. These firms operate semi- or fully automatic plants mostly using imported equipment. Conditions in each of the three plants visited during the study appeared quite hygienic, including monitoring of employee health, water supplies, sanitary conditions,

and refrigeration facilities. One plant was the exclusive supplier to McDonald's franchises in India and, hence, able to meet its standards. Another plant meets standards for exporting to Dubai and other Middle East markets, and currently exports about 20 percent of its output. The third facility is considering trying to get certification to export to the U.S. market.

All of the modern facilities visited for the study report great difficulty in marketing their product because of the limited consumer acceptance and marketing infrastructure for chilled and frozen products. The facilities operate well below capacity and, at best, cover variable costs of processing, with none claiming to make any contribution to fixed costs. The operators included in the study estimate their variable costs of processing at Rs4-6 (8-12 U.S. cents) per bird. Estimates of fixed costs are not available. The tariff on imported processing equipment has recently been reduced from 57 to 30 percent.

Although many processing plants use imported equipment, FDI in poultry processing is limited to one recently completed plant in Coimbatore that was developed using foreign investment from Saudi Arabia.

Farm Price Determination

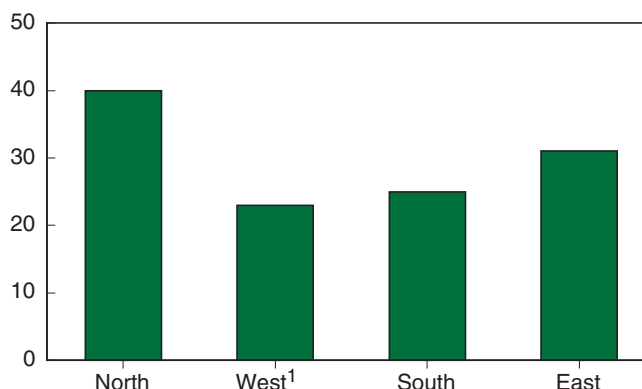
Producer price formation for poultry varies from region to region. In the South, the integrators play a large role in setting daily prices, while in the West, Mumbai wholesale traders continue to have the upper hand in fixing prices. In the North, producer prices are set based on daily auctions at the large Ghazipur market near Delhi. In general, following the pattern of costs of production, producer prices of live birds at the time of the survey in August 2001 were lowest in the South and West, and highest in the North (fig. 7).

◆ *South.* In Tamil Nadu, which includes the major poultry production area of Coimbatore, farm price formation is facilitated by the Broiler Coordination Committee (BCC). The BCC has about 26 members, including integrators and large independent growers, that together account for about 95 percent of Tamil Nadu's poultry output. Because of the cost and difficulty of assembling large numbers of live birds for auction, the BCC provides an institutional framework through which market forces can operate. Each member has an understanding of the demand conditions prevailing within its market area, the volume it is attempting to sell, and the produc-

Figure 7

Average producer prices for poultry in India, by region

Rs/kg, live weight



¹West region prices were unusually low due to oversupply conditions at the time of the survey.

Source: ERS field survey, August 2001.

tion costs. Based on this market information, members place their votes for a live-bird price by telephone or by FAX every Monday and Thursday. Under the BCC voting system, majority rules.

The BCC producer price then becomes the benchmark for setting producer, wholesale, and retail prices for markets in the southern region, including Chennai, Tamil Nadu, Kerala, and, to a lesser extent, Bangalore. For example, one operator in Coimbatore sets its wholesale price as the BCC price plus Rs1 per kg, and the local retail price is generally the BCC price plus Rs8-9 per kg. This margin accounts for transport, shrinkage, and mortality costs, plus margins for the wholesaler and retailer. In the more distant Chennai market, the live-bird wholesale price is usually the Coimbatore price plus about Rs12 per kg to cover these costs and margins.

The BCC also occasionally provides a mechanism for regulating supplies when the regional market faces oversupply conditions. In 2000, when excess supplies were pushing market prices below the cost of production, BCC members agreed to bring 10 percent of their hatching eggs to a common location to be destroyed. However, this mechanism has only worked when prices actually crash. With generally poor market information, it has proved difficult to forecast market conditions, or to convince BCC members of an impending oversupply situation. There is no evidence that the BCC engages in monopoly pricing, judging from the relatively low live-bird prices, retail prices, and margins in Coimbatore, compared with other regions. Monopoly

pricing seems to be discouraged by the strong price sensitivity of poultry demand.

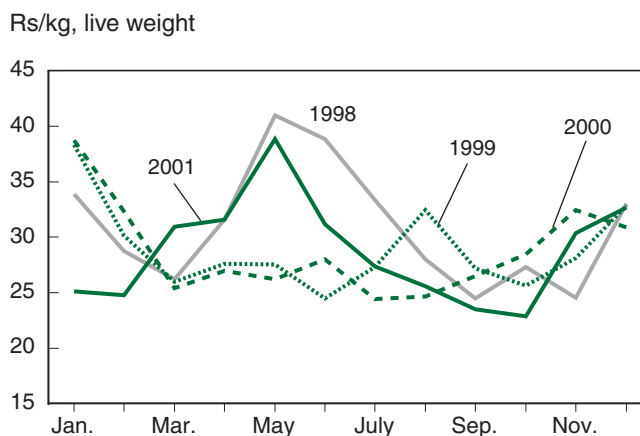
In Bangalore, integrated growers now also appear to have more influence over poultry marketing. In the past, independent growers often sold on credit, with wholesalers often delaying payment. Now, with the integrated growers having more influence, it is a cash market and volumes have increased as producer-retail margins have been reduced. The Coimbatore BCC price is now the reference price used by the Karnataka Hatcheries Association (KHA) to set the Bangalore live-bird price. Sellers are allowed to bargain within an Rs3 range of the price fixed by the KHA.

- ◆ *West.* In the Mumbai region, the producer price formation process begins with a daily rate set and published by an influential group of Mumbai wholesalers. The published price is the reference price off which producer and wholesale prices are set for nearby areas, including the major producing areas of Pune and Nashik. Presumably, these wholesalers set the daily price based on their reading of supply and demand conditions, but there is no transparency to the process. It is unclear how the entry of the integrators will affect this system. It is likely that, as they account for a rising share of supplies, the integrators will gain more influence over Mumbai wholesale (and retail) pricing. However, the high cost of establishing a sufficient presence in Mumbai retail markets may make this process more difficult than in the South.
- ◆ *East.* In contrast to the other regions visited, the Calcutta region does not appear to have a centralized price discovery mechanism, either in the form of a large central market or a group of traders. Market prices appear to be fairly volatile. The largest single player in the market, an integrator, does not appear to be large enough to exert price leadership.
- ◆ *North.* The northern region would appear to be the closest to having an open-market mechanism for setting regional wholesale and producer prices. The Ghazipur market near Delhi handles about 100,000 birds per day, about 40 percent of total Delhi consumption. The live birds are sold in batches at concurrent auctions involving market agents and producers. The remaining Delhi supplies are provided by smaller nearby markets that use the Ghazipur price as a benchmark. Prices in more distant regional markets in Punjab and Haryana also reflect Ghazipur prices. As the overall Delhi market expands, however, the Ghazipur market's share of market volume appears to be steadily declining.

Producers opting to use smaller, closer markets cite the time and transport costs of using Ghazipur, along with a desire to evade the market fees and commission agent fees in the formal market.

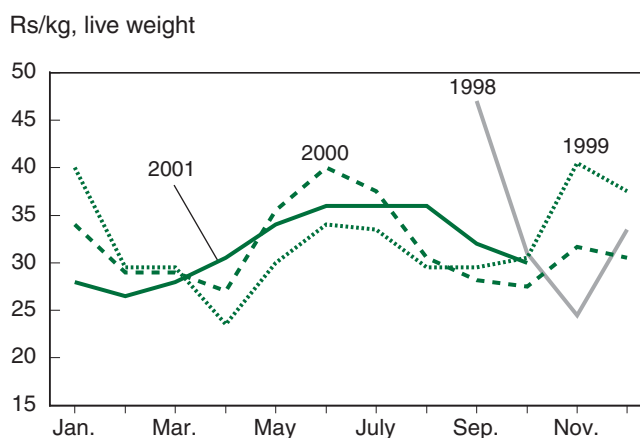
The available data also indicate significant variability in monthly producer prices within each of the regional markets (figs. 8 and 9). This variability is to be expected due to the constraints on moving live birds long distances to address oversupply or shortage conditions across the regional markets. This price variability appears to be a key incentive for individual producers to enlist with poultry integrators who pay contractually fixed margins and assume all marketing risk. Producers, however, maintain responsibility for

Figure 8
Monthly live-bird selling rates in India, Coimbatore market



Source: ERS, from Indian industry sources.

Figure 9
Monthly live-bird selling rates in India, Delhi market



Source: ERS, from Indian industry sources.

achieving minimum production standards, including weight-gain efficiency and mortality rates.

Farmer Compensation Under Integration

Under integration, farmers are largely insulated from the volatility in producer prices in the regional live-bird markets. In the southern and western regions, the standard grower's contract pays the grower a flat rate per live-weight kg of harvested bird, plus a potential performance bonus (or penalty). The integrator provides the DOCs, feed, medicine, veterinary services, and management guidance and is also responsible for removing and marketing the mature birds. The farmer provides the house and equipment to the integrator's specification, power, fuel, labor, and day-to-day management. Bonuses are most commonly awarded for exceeding contractual performance benchmarks for mortality and FCR.

- ◆ *South.* In the southern region, typical grower contracts pay farmers Rs2.20 per kg of harvested bird, based on an FCR of 2.0 and mortality of 4.0 percent, plus up to Rs0.50 per kg in incentives for lower FCR or mortality. For example, if a farmer achieves the harvest weight with a 1.75 FCR, the payment can reach Rs2.70 per kg. On average, farmers receive about Rs2.50 per bird. Farmer costs for power, labor, and other items not borne by the integrators are reported to be about Rs0.80 per kg, implying a return of about Rs1.70 per kg to apply against their fixed costs.
- ◆ *West.* In the western region, where integration is a newer development and costs appear somewhat higher than in the southern region, contracting terms seem to be more generous than in the South. One integrator in the region offers Rs3 per kg of live weight, based on an FCR of 2.0 and mortality of 4.0 percent, plus incentives.
- ◆ *East.* In the Calcutta area, different contracting arrangements are used, apparently due to difficulties in getting local farmers to provide proper management and quality control. The major integrator in this region only rents houses from local farmers or landlords, with the integrator then providing all equipment, labor, management, and variable inputs, with the exception of electricity and water. Rental rates paid by the integrator work out to about Rs3

per kg of live weight, implying somewhat higher grower returns than in the South or West.¹²

Farmers have the option of entering into contracts with a competing integrator, or of not participating in contract growing. In the South, where contract growing is well established, integrators claim that there is a high degree of loyalty and little switching by contract growers. In the West, contract production is a more recent development, and farmers are more aggressive about switching to another integrator and integrators are more aggressive in attracting new growers. Contract loyalty in the South stems, at least in part, from the experience of growers with market prices that held below costs of production during much of 2000 and 2001 and created strong incentives to shift to contract growing. In the South, producers appear to prefer contract growing, with fixed and assured returns regardless of swings in market prices and all marketing risk transferred to the integrator.

Although farmers have an incentive to renege on their contracts when prices rise above the rate of return provided by the integrator, the integrators appear to be effective in keeping market prices and margins low. Integrators in the South, West, and East report few instances of growers renegeing on their contracts. By contrast, a lack of contract compliance by growers has been a major deterrent to contract growing in the North.

Regional Variation in Retail Prices and Margins

The available data indicate significant regional variation in retail prices, with higher prices in the North than in the other regions (table 8). The relatively low retail prices reported for Mumbai in the West are probably not typical for most of the year, since these prices were observed during a religious festival when demand was slack and major suppliers were engaged in intense price competition. Respondents indicated that Rs60 per kg is a more typical Mumbai retail price for a dressed bird.

The retail prices in the North, including Delhi and Punjab, can be more than twice those in the South and West. These price differentials help to explain why per

¹² Although reported contract rates are the same in the East and West, growers in the West tend to incur higher variable costs for operating environmental controls, implying that grower returns may be somewhat higher in the East.

Table 8—Retail prices of poultry in India, dressed-weight basis

Region	Location	Description	Price Rs/kg
Whole birds:			
North	Delhi	W/O head, feet, skin & giblets	90.00
	Haryana	W/O head, feet, skin & giblets	75.00
	Ludhiana	W/O head, feet, skin & giblets	90.00
West	Mumbai	W/O head, feet; w/ skin & giblets	44.87
	Mumbai	W/ head, feet, skin & giblets	38.00
	Mumbai*	W/O head, feet; w/ skin & giblets; frozen	75.00
South	Bangalore*	W/O head, feet; w/ skin & giblets; chilled	69.00
	Hyderabad*	W/O head, feet; w/ skin & giblets; frozen	52.00
	Coimbatore	W/O head, feet; w/ skin & giblets	46.42
East	Calcutta*	W/O head, feet; w/ skin & giblets; chilled	50.00
Parts:			
North	Haryana	Drumsticks	120.00
		Boneless breasts	150.00
West	Mumbai	Legs, breasts	75.00
		Boneless	100.00
	Mumbai*	Legs w/ thighs	110.00
		Breasts	110.00
		Boneless	170.00
East	Calcutta	Leg quarters	100.00

* Automatic processing, in frozen consumer packs.

Source: ERS field survey, August 2001.

capita consumption of poultry meat in the South is, reportedly, higher than in the North despite lower incomes in this region relative to the North.

The retail price data for poultry parts, collected from generally high-end shops in urban centers, are fairly sparse and inconclusive in terms of regional differences in prices. The data, however, show no evidence of a strong difference between prices for light- and dark-meat portions.

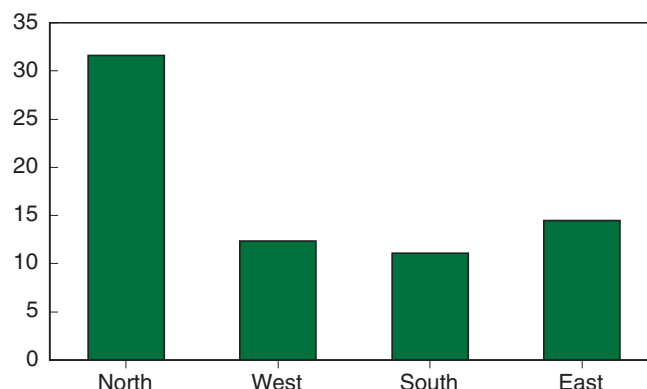
Integration Leads to Lower Costs and Margins

The data collected on producer and retail prices indicate significantly lower marketing margins in the West, East, and, particularly, the South, compared with the North (fig. 10). Lower retail prices in the South appear to be due largely to the presence of poultry integrators who, in addition to reducing production costs, have sharply reduced marketing margins between producer and retail prices. Several factors appear to contribute

to the reduced margins and retail prices. First, the process of integration has created regional oversupply conditions that have forced down retail prices and squeezed trader margins. Second, the integrators have

Figure 10
Average producer-retail margins for poultry in India, by region

Rs/kg, live weight



Source: ERS field survey, August 2001.

often supplanted traditional wholesalers and also established their own retail presence to squeeze the margins traditionally taken by many small wholesalers and retailers. This strategy, at least in part, reflects an effort by the integrators to exploit the high price elasticity of demand for poultry meat and increase profits by reducing prices and changing the sector from a high-margin, low-volume business, to a low-margin, high-volume business. Third, in order to expand operations and market share, integrators have likely pursued a strategy of low margins and market prices to help enlist and maintain the loyalty of contract growers.

Upwards of 75 percent of production in the South is now reported to be integrated, much more than in other regions. In Tamil Nadu, poultry integrators established their own retail shops, where they priced poultry meat substantially lower than other outlets. Their objective was not necessarily to move a high volume of poultry through their retail shops but to exercise price leadership, discipline other wholesalers and retailers, bring about substantial reductions in the farm-wholesale margin, and reduce consumer prices.

With the entry of integrators in the western region, some of whom are also establishing a retail presence, marketing margins that have historically been under the control of the established wholesale traders are likely to come under pressure. Margins were, reportedly, unusually low—close to those observed in southern India—in August 2001. Although low margins were at least partly due to the observance of a religious festival during this period, the aggressive expansion and marketing of the new entrants into the poultry integration business in the region was also a factor and may portend future developments. The integrators, with increased activity in cutrate retailing of live and branded processed poultry, appear to be providing some competition for established retailers in Mumbai. However, the high property and establishment costs for retail poultry shops, and for modern supermarkets that might offer branded poultry products, may lead to slower marketing success for the integrators in Mumbai than in the South.

In the eastern region, there is one large integrator serving the Calcutta market, a number of smaller nonintegrated producers, and no major central wholesale market. Although the integrated operator appeared to keep its producer-retail margins relatively low, it is not clear what impact this has on the rest of the market. The integrator faces little direct price competi-

tion for its product and follows a strategy of maintaining a constant retail price for months at a time, only changing it when necessitated by a large movement in producer prices. The marketing strategy of the integrator, which operates a growing chain of retail outlets for processed birds and parts as well as being a wholesaler, is to provide its product at a stable and “reasonable” price.

In the Delhi market, producer-retail price spreads have not been reduced by competition and appear to be relatively large. Retail prices appear not to move down, even when producer prices decline in the Ghazipur market. The Delhi market has the largest producer-retail margins and the highest retail prices of any of the major markets for which data are available. Retail prices in the Delhi market, Rs80-90 per kg during August 2001, reportedly remain fixed for long periods regardless of daily changes in wholesale or producer prices. Although Delhi has the largest, and perhaps the most openly competitive market for setting producer prices, solidarity among local traders and retail merchants appears to keep retail prices and margins up.

Poultry Trade Policy and Import Potential

Consistent with its Uruguay Round market access commitments, India eliminated its quantitative restrictions on poultry meat imports in April 2001. Imports of poultry meat and products, as well as poultry grandparent breeding stock, are now subject to tariffs ranging from 40 percent for grandparent stock, to 108 percent for poultry meat, to 141 percent for processed products (table 9). Despite these policy changes, phytosanitary regulations and clearance procedures applicable to poultry meat remain poorly defined and a deterrent to imports.

Tariff levels, along with the poorly defined regulatory barriers, provide significant protection to the poultry industry. When domestic corn supplies are tight, however, this protection is at least partially offset by the impacts of corn import restrictions on feed costs. With feed accounting for a large share of poultry production costs, the TRQ regime for corn can, potentially, impose significant costs on the industry (see section on poultry feed supply and demand).

Although tariff and regulatory barriers restrict poultry imports, Indian consumer preferences and lack of cold chain facilities also constrain poultry imports. Most

Table 9—Import policy for poultry and feed ingredients in India

HTS code	Commodity	Trade policy	Tariff ¹
207	Poultry meat	Free	108.00
16.01	Sausages (including poultry)	Free	141.28
16.02	Prepared/preserved poultry meat	Free	141.28
407	Eggs (table/hatching)	Free	40.40
408	Egg yolks	Free	40.40
10511	Poultry grandparent stock	Free	40.40

HTS = harmonized tariff schedule.

¹Inclusive of special and additional tariffs, as applicable.

Source: *India Poultry and Products Annual 2001*, Gain Report No. IN1045, Foreign Agricultural Service, USDA.

Indian consumers prefer freshly slaughtered birds, as opposed to chilled and, particularly, frozen poultry. Additionally, poor transport infrastructure and a lack of cold chain facilities currently limit the feasibility of handling significant volumes of chilled or frozen product. At present, the market for frozen poultry is limited to a relatively small number of institutional and high-end urban customers. Although the Indian market for frozen poultry can be expected to expand, it is not likely to provide significant trade opportunities in the near future. The current market for chilled products, among both institutional and urban retail consumers, appears to be larger than the frozen market. If chilled products can be supplied at a competitive price, market opportunities may expand significantly.

In some cases, U.S. poultry exporters have been able to take advantage of relatively weak U.S. demand and prices for dark-meat poultry portions by selling them to foreign markets, such as China and Japan, where

dark meat is preferred to white meat. Indian consumers also generally state a preference for dark meat but, at least according to the sparse available price data, this preference is not reflected in noticeable price premiums for dark meat. As a result, at least with the high tariff applying equally to both dark- and white-meat portions, there does not appear to be an opportunity for imports of lower priced dark-meat portions to be price competitive in India.

Finally, based on market prices observed in southern, western, and eastern India, it does not appear that domestic costs and prices for whole birds differ significantly from U.S. prices. It is unlikely that imports of whole birds can be price competitive with domestic birds, even if the tariff were significantly lower, and it is unclear that imported parts would have a clear price advantage over domestic products. Whole-bird production costs and retail prices in southern India, where production costs and marketing margins are lowest, are roughly in line with U.S. prices. While production costs and market prices are higher in other regions, increased activity by integrators is likely to lower these costs over time, most immediately in the western region around Mumbai.

At present, India has no restrictions on FDI in the poultry industry, hence investment opportunities in poultry production and marketing may be stronger than opportunities for trade in poultry or feed. So far, there are only relatively small amounts of FDI in poultry feeds, production equipment, and processing, and none in poultry breeding or integration. Market price volatility, uncertainty on feed availability, poor power and transport infrastructure, and high taxes on processed food are key disincentives for foreign investment.