

Acquisitions and Integration in the Beef Industry

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In July 2007, the Brazilian beef processor JBS S.A. (JBS)—at that time the largest beef processor in Latin America—completed the purchase of Swift & Company—the third largest beef processor in the United States. As a result of the acquisition, JBS not only gained a major stake in the U. S. market, but also created the largest beef processor in the world, JBS Swift Group. In March of this year, JBS announced plans to expand its U.S. operations further with the purchase of National Beef, the beef packing operations of Smithfield, and Five Rivers Ranch Cattle Feeding (a joint venture of Smithfield and Continental Grain). The acquisition of the fourth and fifth largest U.S. beef packers (National and Smithfield, respectively) would push JBS Swift Group past Tyson Foods as the largest beef processor in the United States. It will also contribute to further consolidation in the already–highly–concentrated U.S. beef processing sector. Consequently, the purchase is certain to invite close scrutiny from the Department of Justice (DOJ) as well as from other participants at every level of the beef industry. The deal has already sparked high–level debate, with Sen. Herb Kohl (D–WI), chairman of the Senate Subcommittee on Antitrust, Competition Policy and Consumer Rights, penning a letter to the DOJ urging them to block the proposed acquisitions.

The expansion of JBS is notable not only for its possible effect on the horizontal structure of the beef processing industry but also because it involves a substantial degree of vertical integration. Five Rivers Ranch is the largest cattle feeding entity in the U.S., with a one–time feeding capacity of over 800,000 head. Having consolidated ownership and, presumably, management of the largest feeding and processing operations in the country would be an unprecedented arrangement for the industry. This development is quite likely to reinvigorate the debate over statutory restrictions on vertical control of livestock by packers. Such

restrictions came close to passage in the 2002 Farm Bill and have been debated numerous times since.

This article will explore how the rapid development of JBS's U.S. beef market operations fits within the broader context of the industry's recent evolution. Specifically, we will discuss the incentives in the market for this consolidation, the nature of the regulatory hurdles that must be cleared to complete the acquisition and the potential regulatory and policy ramifications of the rather substantial vertical consolidation represented by this acquisition.

A History of Horizontal Consolidation and Vertical Coordination

The current JBS acquisitions represent the most recent step in a long and often contentious march of consolidation in the beef industry. A period of rapid structural change in the industry in the 1980s and early 1990s produced an industry in which the top four firms control around 80% of total steer and heifer slaughter. The currently planned acquisition of the beef processing capacity of National and Smithfield by JBS Swift Group differs from recent merger and acquisition activity in the beef sector primarily in its scale. The scale of the deal is quite remarkable. Consider that between July 2007 and the consummation of the current acquisition, the third, fourth, and fifth largest U.S. beef processors will have been combined into a single entity. As noted, this firm will be the largest beef processor in the United States (as well as a subsidiary of the largest beef processor in the world), accounting for around 30% of U.S. commercial slaughter of all cattle compared with 25% for Tyson and 21% for Cargill (Tyson Foods, Inc.). The merged firm will control 11 beef slaughter facilities (four each from JBS–Swift and Smithfield and three from National). Of course, it remains to be seen if the newly–constituted JBS–Swift would maintain operations at all of

these plants, though company documents are quick to point out that JBS actually expanded production at Swift facilities after the 2007 acquisition.

The basic economic forces motivating this acquisition are broadly consistent with the forces driving the consolidation of the 1980s and 1990s. Whereas in the 1980s, the urgent need for more efficient production was rooted in a persistent decline in demand, the overriding concern now is an issue of overcapacity in the processing sector resulting from a steady decline in cattle numbers. Tyson CEO, Dick Bond, has estimated that overcapacity is 10,000 to 14,000 head per day. While the JBS–Swift expansion will not immediately reduce that overcapacity, the newly–constituted firm should be better situated for the highly competitive market environment created by that overcapacity.

Other aspects of the current market environment are somewhat different than that of the 1980s and early 1990s, enhancing incentives for consolidation. Notably, soaring costs of production—reflecting higher costs in feeding and cow/calf sectors due to record feed prices as well as the direct impact of higher fuel and energy prices on processors—indicate that packers will have to work to improve demand, become more efficient, and/or scale back production in order to have any chance at sustained profitability. Problems regaining export markets almost five years after the first U.S. case of BSE continue to be a challenge for the industry and exacerbate the difficulties of dealing with overcapacity and high production costs. Finally, the historic weakness of the dollar undoubtedly enhanced JBS’s leverage in the proposed acquisition.

Industry Concentration and Department of Justice Priorities

The beef processing industry has long been characterized by a high degree of concentration. The four–firm concentration ratio in steer and heifer slaugh-

ter has been about 80% since the mid–1990s. The Herfindahl–Hirschman Index (HHI) has been very close to or above 1,800 over most of that time as well. This is the level that Department of Justice (DOJ) and Federal Trade Commission (FTC) guidelines suggest denotes a highly concentrated industry. Guidelines further state that in a highly concentrated industry, the DOJ/FTC presumption will be that mergers increasing the HHI by 100 points or more “are likely to create or enhance market power or facilitate its exercise” (U.S. Department of Justice and the Federal Trade Commission).

Data from 2006 (the most recent data published by GIPSA) show an HHI for steer and heifer slaughter of 1,779 based on procurement data reported to GIPSA and 1,826 based on federally inspected slaughter data: just below or just above the DOJ threshold for a highly concentrated industry depending on the data used in the calculation. It remains to be seen exactly what DOJ calculates for the impact of the proposed JBS–Swift acquisition on HHI in the beef packing industry; however, it will be almost certainly well over 100 points given the relatively large market shares of the three firms (JBS–Swift, National, Smithfield) involved in the transaction. A more expansive definition of the market—for example, including all meat production rather than just beef production—would of course result in a smaller HHI; however, it appears unlikely at this point that DOJ would consider this more expansive definition. Still, it is not clear exactly how even a substantial increase in the HHI would affect DOJ’s evaluation of the transaction. As the DOJ/FTC merger guidelines state: “... it is not possible to remove the exercise of judgment from the evaluation of mergers under the antitrust laws.”

Clearly, sufficient latitude exists for DOJ to permit a merger to go forward even in a highly concentrated industry. In fact, DOJ/FTC guidelines specifically enumerate consider-

ations related to conditions in a particular market that will override the presumption of market power noted above. Of particular relevance for the beef packing industry, merger guidelines call for considering how a merger will affect the efficiency of the merged firm. The central importance of market forces (as opposed to a fairly rigid evaluation of market structure metrics) in DOJ deliberations is evident in recent congressional testimony by Douglas Ross, Special Counsel for Agriculture at DOJ, who notes that:

“...the responsibility entrusted to us ... is not to engineer the best competitive structure for the marketplace. The antitrust laws are based on the notion that competitive market forces should play the primary role in determining the structure and functioning of our economy.”
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Given the aforementioned overcapacity in the beef packing sector, DOJ/FTC guidelines that include explicit consideration of the potential for failure/exit of a merging firm are particularly relevant. Severe losses in the beef processing sector in 2007 and 2008 have raised the issue of the survivability of existing packers. National Beef has faced considerable financial hardship in the current market environment, with Moody’s Investors Service lowering the firm’s credit rating in early 2008. With respect to the proposed merger, this situation creates a more favorable environment for approval.

Vertical Coordination and Policy Responses in the Beef Industry

The drive for greater efficiency in the beef industry since the early 1980s has taken the form not only of increasing the scale of packing operations but also of improving coordination across vertical stages of production. Packer use of nonprice coordination methods—direct ownership of cattle, fixed–price forward contracts, and marketing agreements—has increased

substantially over the last twenty years. For the four largest packers, the proportion of cattle obtained through non-price methods increased from 20.5% to 40.4% between 1988 and 2006 according to the latest GIPSA statistical report.

The debate over the growth and potential market impacts of packer control of cattle (a term that subsumes all types of nonprice vertical coordination between feedlots and packers) has, to a large degree, paralleled the controversy over the increasingly-concentrated condition of the packing sector. There is a notable difference, however, in these discussions of vertical versus horizontal market structure. While those advocating a more aggressive response to horizontal concentration generally appeal to existing anti-trust legislation and policy, prescriptions for addressing concerns over vertical structure reflect the dissatisfaction of some industry participants and policy makers with the existing regulatory framework. Since 2002, legislative restrictions on packer control of livestock have been proposed a number of times at the federal level.

The most expansive proposal for limiting packer control of livestock was in the Senate version of the 2002 Farm Bill. This proposal would have placed relatively strict limits on the ability of packers to control livestock for more than 14 days prior to slaughter. When industry groups expressed concern over the proposal's effect on forward contracts and marketing agreements, it was amended to deal more specifically with packer ownership of livestock. Ultimately, the provision was dropped in conference. Since that time, the Captive Supply Reform Act—restricting the use of formula pricing and limiting the number of cattle that can be covered by a single contract to 40 head—has been offered in every session of Congress, though it has yet to emerge from committee in either house. In 2008, The Senate version of the Farm

Bill again included a prohibition on packer ownership of livestock; and again the provision was struck in conference.

The JBS–Swift acquisition of the Five Rivers Ranch creates the type of vertical integration model that has been directly targeted by previous legislation to curtail packer control of livestock. Consider the following language from the Senate version of the latest Farm Bill that would amend the Packers and Stockyards Act of 1921 to make it unlawful for packers to:

“Own or feed livestock directly, through a subsidiary, or through an arrangement that gives the packer operational, managerial, or supervisory control over the livestock, or over the farming operation that produces the livestock, to such an extent that the producer is no longer materially participating in the management of the operation...” (H.R. 2419, Sec. 10207)

Legislation such as this would effectively prevent JBS–Swift (or any other major packer) from owning a feedlot. Clearly, the packer could not feed company-owned cattle, and the language on “supervisory control” over cattle would appear to proscribe even custom feeding arrangements.

Serial attempts to limit vertical control by packers highlight the important policy implications of the JBS–Swift acquisition of the country's largest feedlot. If the acquisition proceeds as proposed, the newly-constituted JBS–Swift will have the potential to control about 1.6 million head of fed cattle annually (assuming that Five Rivers Ranch's one-time capacity is turned over twice per year). According to Steve Kay with *Cattle Buyers Weekly*, this represents about 14.5% of the new entity's potential annual kill. For the four largest packers, the proportion of packer owned cattle in 2006 was 6.9% of total steer and heifer slaughter, with another 6.7% and 26.8% controlled through forward contracts and marketing

agreements, respectively (GIPSA). In this context, then, the volume of cattle encompassed by this vertical integration is by no means unprecedented. Moreover, combined ownership of feedlots and packing facilities is not new to the beef industry. Montfort beef included both feeding and packing operations. These operations were purchased by ConAgra in 1987 and remained part of that company until 2004 when they were sold to Smithfield. These feedlots became Smithfield's part of the Five Rivers Ranch joint venture with Continental Grain in 2005. Clearly what most distinguishes the proposed JBS–Swift expansion from these previous arrangements is the scale of both the feeding and packing interests.

The scale of integration between the feeding and packing sectors represented by the JBS–Swift expansion directly challenges the fairly widespread sentiment in the industry for mandating a clear separation between these sectors. Arguments against the acquisitions based on vertical structure considerations are undermined rather significantly, however, by the fact that vertical integration and other means of nonprice coordination are pervasive in the poultry and pork industries. Thus, the JBS–Swift deal—at least the Five Rivers Ranch component of it—places policymakers and regulators in an uncomfortable situation. Allowing the acquisition will without question arouse the ire of producer groups and legislators opposed to non-price coordination. On the other hand, disallowing the acquisition, at least on vertical structure grounds, could make it difficult for beef industry participants to secure the types of efficiency gains from vertical integration that are available to poultry and pork producers. It would also at least tacitly suggest the undesirability of vertical integration in the beef industry, though that structure is standard in other livestock industries.

The longer-run implications of the JBS–Swift expansion are interesting. If the new firm realizes significant efficiency gains from the more vertically integrated model, competing firms will very likely follow suit—either acquiring upstream assets or expanding their use of nonprice coordination methods such as formula pricing agreements. In either case, the industry will face a choice: follow a more vertically integrated model, accepting the implications of that for upstream producers (e.g., market access problems for smaller, nonaligned producers) or prevail upon policy-makers to mandate a fairly rigid separation of adjacent market levels (at least at the feeder/packer interface), perhaps compromising the competitive position of the beef industry relative to competing meat industries and/or relative to foreign producers. Either course of action involves difficult trade-offs; either course of action creates winner and losers; and either course of action, once embarked upon, is likely to be, for all practical purposes, irreversible.

Summary and Conclusions

In the long history of market structure concerns and controversies in the beef industry, the proposed JBS–Swift purchase of National Beef, Smithfield Beef Group, and Five Rivers Ranch Cattle Feeding stands out. The merging, in quick succession, of the country's third, fourth, and fifth largest beef processors to form a single entity controlling roughly one-third of U.S. cattle slaughter capacity is, on its own, remarkable. But this merger and acquisition activity differs from such previous activity in the beef industry not just in degree but in type. The consolidation of the management of the country's largest beef processor with the country's largest cattle feeding enterprise represents a level of vertical integration that is really unprecedented in the beef industry.

Longstanding efforts to legislate against closer vertical coordination

in the beef industry presage a contentious path to regulatory approval for the proposed JBS–Swift acquisitions. The longer-run implications for the beef industry are potentially momentous. The JBS–Swift deal could usher in an era of increasing non-price vertical coordination in the beef industry—bringing about a market structure more consistent with pork and poultry markets. On the other hand, push-back from industry groups concerned about the upstream effects of industry concentration (both vertically and horizontally) could lead to binding restrictions on vertical coordination, with significant implications for the competitive position of the U.S. beef industry. The significance of these trade-offs underscores the importance of sound economic analysis. While a significant body of work exists on market structure issues within the beef industry, the continuing evolution of the industry as represented by the proposed JBS–Swift acquisitions suggests a need for ongoing research into various dimensions of market performance (e.g., impacts of increased integration on price levels and variability at various market levels, on production efficiency in feeding and packing sectors, and—given the increasingly multinational character of meat packers—on international trade) and for educational efforts that help market participants—including policy makers and regulators—incorporate research-based information into their decision-making.

For More Information

H.R. 2419, Sec 10207. (2008). *Food and Energy Security Act of 2007* (Engrossed Amendment as Agreed to by Senate). Online at <http://thomas.loc.gov/cgi-bin/query/z?c110:H.R.2419>. Website accessed May 20, 2008.

Kay, Steve. (2008). JBS Agrees to Buy National and Smithfield Beef. *Cattle Buyers Weekly Newflash*, March 4.

Ross, D. (2008). *Concentration in Agriculture and an Examination of the JBS/Swift Acquisitions*. Testimony before the Subcommittee on Antitrust, Competition Policy and Consumer Rights, Committee on the Judiciary, United States Senate. Washington DC: May 7.

Tyson Foods, Inc. (2008). *Tyson Investor Fact Book: 2007–2008*. Investor Relations Department, Springdale, AR.

U.S. Department of Agriculture Grain Inspection, Packers and Stockyards Administration. (2008). *Packers and Stockyards Statistical Report: 2006 Reporting Year*. Washington DC: May.

U.S. Department of Justice and the Federal Trade Commission. (1997). *Horizontal Merger Guidelines*. Washington DC: April 8. Online at <http://www.usdoj.gov/atr/public/guidelines/hmg.pdf>. Website accessed May 27, 2008.

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