



Agribusiness

- Moderator: **David E. Bell**, *George M. Moffett Professor of Agriculture and Business*
- Panelists: **Ray Goldberg**, *George M. Moffett Professor of Agriculture and Business, Emeritus*
Frank G. Ning, *Chairman, COFCO Ltd.*
Alberto Weisser, *Chairman and CEO, Bunge Ltd.*

Overview

Through the study of agribusiness at Harvard Business School, the notion of the value-added food chain was born. Both the study and practice of agribusiness have evolved significantly over the decades. During that time, agribusiness has come to be seen not just as economically important, but as a critical part of society. Agribusiness touches on health, nutrition, safety, science, and government.

One particular step in the evolutionary process is a transformation that occurred in the past decade. Some industry players have gone from being low-margin commodity producers to higher-margin providers of “solutions.”

The future for this massive industry will be both exciting and complex. To feed the world, production must double by 2050, while dealing with political issues, water constraints, price volatility, and the need for more sustainable practices. But, due to more efficient operating practices, new technologies, and increased levels of partnership and collaboration across the supply chain, the future for the industry is very attractive.

Context

Professor Bell moderated a discussion of agribusiness past, present, and future. Professor Goldberg shared his perspective on the inception of the field of agribusiness and its evolution; the other panelists discussed present and future challenges based on their unique vantage points.

Key Takeaways

- **A collaborative partnership mentality has transformed both the agribusiness sector and its study at HBS.**

Professor Goldberg, founder of the agribusiness program at HBS in 1955, created a conceptual framework for studying the sector, which for the first time measured the food system. This revealed agribusiness to be the nation’s and world’s largest sector.

His research also showed that agribusiness was a quasi-utility with significant political as well as economic implications. Accordingly, governments affect companies’ bottom lines.

Study of the food sector showed it to be characterized by interdependencies among parties throughout what came to be seen as a value-added “food chain.” (Both the concept of a value-added food chain and the “food chain” terminology came to be adopted by numerous other sectors.)

Despite the interdependencies, Professor Goldberg was struck by the high level of distrust that permeated the

sector. A similar lack of trust had hindered the study of agribusiness across academic disciplines, including Harvard’s Medical School, Kennedy School, economics department, biochemistry department, and more. Given how intertwined food is with health/nutrition/safety, culture, science, government, and economic development, Professor Goldberg was able to convince the deans of other Harvard schools and departments to collaborate on an innovative interdisciplinary approach.

Agribusiness itself was propelled forward about ten years ago by a newly emergent partnership mentality. One food industry company discovered it could create far greater value by becoming a “solutions provider” up and down the value chain. Taking a partnership approach toward customers and suppliers, helping them better serve their stakeholders, was suddenly seen as a win/win for all. The result was a transformation for this company and the industry. Instead of making “cents on the bushel,” players as providers of value-added solutions were able to earn “dollars per bushel.”

“Unless you make your customers’ customers’ customers satisfied, you really aren’t going to win very much in this game.”

— Ray Goldberg

Agribusiness is seen today as more than a commodity industry; it is seen as a driver of societal and economic health. Food system players are starting to address not only the needs of their partners and stakeholders but the needs of society—the ultimate stakeholder.

“We’re much more than a commodity industry; we’re a nutrition industry, we’re a health industry, we’re an energy industry, we’re an economic development industry. . . . Our ultimate customer is society as well.”

— Ray Goldberg

- **From the perspective of a large global agribusiness company, the value is in “the whole chain.”**

Mr. Weisser shared his views on the key trends shaping agribusiness. They are:

— *The need for more food.* Due to global population and income growth, the world will require double its food production by 2050.

— *Biofuels.* Biofuels, particularly sugar-based ethanol, make sense economically and calorically and are here to stay; they will become a greater part of the energy supply. However, Mr. Weisser thinks that recent market incentives for ethanol’s production were too aggressive and helped precipitate the food price crisis.



- *Globalization of food.* Attempts in many locations for regional self-sufficiency are inefficient and altogether impossible. Demand is growing in areas where food simply can't be grown. In contrast, globalization increases competition and efficiency.
- *Rising importance of environmental sustainability.* Across the world, sustainability is becoming a more important value, which will affect all areas of agribusiness.
- *Continued food price volatility.* There will always be cycles of supply and demand that move prices; market speculation played less of a role in the current crisis than many believe.

With these as the trends, Bunge has grown its business by 10 times over the past 10 to 15 years by focusing on its value chain. The company has built logistics systems, expanding from 3 ports to 24, with 10 more being built. And, it has expanded its product line and geographic footprint. While previously the key success factor in agribusiness was in "the brands," now the winners will be in and create value across the entire chain.

"We have an advantage because we manage the whole supply system, the whole chain . . . we see our purpose to enhance lives by improving the food and production chain."

— Alberto Weisser

Going forward, Bunge is focused on efficiency.

- *Production efficiency.* This will be achieved through use of supply chain technology and regional specialization.
- *Trade efficiency.* The key is letting the system work with the least amount of interference.
- *Logistical efficiency.* This will be achieved by investments in smart infrastructure.

In addition, the company is expanding into new markets, forging new partnerships, and working with customers in areas such as nutrition.

- **China faces a unique set of agribusiness challenges as the country seeks to become more self-sufficient.**

Mr. Ning provided a glimpse of the agribusiness issues taking place in China. He categorized China's situation in terms of:

- *Consumption perspective.* Today, China consumes more food than it produces, particularly in the area of protein, such as eggs and meat, as well as soybeans.

- *Supply perspective.* China is working hard to increase its production and become more agriculturally independent, with a target of 95% self-sufficiency. To promote this objective, agricultural reforms are taking place aimed at making China a more efficient producer.
- *Trading perspective.* Due to trade commitments, China will become more open. However, China is unlikely to be a major agricultural exporter as most of what is produced in the country is consumed in the country.

"China is working hard to increase its production and become more self-sufficient."

— Frank Ning

COFCO has undergone a transition from a trading company to a company with an integrated value chain. In becoming a more integrated company, partnerships and collaboration play a key role.

"Through partnerships we are working to build the food supply system for China and the world."

— Frank Ning

Other Important Points

- **Protectionism and free trade.** Professor Bell found it unnerving that in the recent food crisis, countries rushed to be protective and worried about self-sufficiency. In his view, the world must be regarded as a collective resource for feeding people.

In general, the panelists were optimistic about the prospects for agricultural free trade, believing that governments increasingly understand the dangers in shutting borders. Professor Goldberg sees free trade as likely, but believes that countries will only adopt free trade policies on the condition that they don't destroy their domestic priorities.
- **Risk.** Professor Bell commented that in the future the world might become more risky versus less risky. The reasons for this include information transparency and correlated demand, which causes people across the world to act in concert. An example: with the rapid spread of the low-carbohydrate Atkins diet, the world stopped eating bread.
- **Water.** As China seeks to become self-sufficient and as the food sector works to double production between now and 2050, water is seen as the key limiting factor. Water is the scarcest resource.



Speaker Biographies

David E. Bell (Moderator)

George M. Moffett Professor of Agriculture and Business, Senior Associate Dean, Director of Faculty Planning and Recruiting

David Bell is the George M. Moffett Professor of Agriculture and Business and senior associate dean, director of Faculty Planning and Recruiting at HBS. During 30 years on the faculty, Bell has taught courses on managerial economics, risk management, marketing, and retailing on the MBA and executive levels. He is now teaching the MBA Agribusiness course. He chairs the annual Agribusiness Seminar, which attracts some 200 food-industry executives from around the world to discuss trends in the industry. For several years he was faculty chair of the School's 10-week Program for Management Development executive course. Most recently, he served as head of the Marketing unit for six years.

In agribusiness, Bell is particularly interested in the demand side of the food chain: how eating habits are changing, both what people eat and the channels through which they choose to buy food. From these trends he wishes to understand the implications for the supply end of the agribusiness industry. He is also interested in the risks faced by the global food chain, whether from disease pandemics, terrorism, war, or other catastrophes.

Bell has written two books on retailing with Walter Salmon: *Strategic Retail Management* and *An Introduction to Retailing*. With Arthur Schleifer Jr., Bell has produced four books in a series called Managerial Decision Analysis: *Decision Making Under Uncertainty*; *Data Analysis, Regression, and Forecasting*; *Risk Management*; and *Decision Making Under Certainty*. His research in this area has centered mostly around the analysis of risk. Most recently he has published a series of papers dealing with the integration of economic and financial theories of risk. His best-known papers are concerned with the incorporation of psychological aspects of risk-taking, such as regret and disappointment, into formal decision-making systems.

Bell was awarded the 2001 Ramsey Medal by the Decision Analysis Society of INFORMS. He is the department editor for decision analysis for *Management Science*.

Bell received a BA from Merton College, Oxford, and a Ph.D. from MIT.

Ray A. Goldberg, MBA 1950

George M. Moffett Professor of Agriculture and Business, Emeritus

Ray Goldberg is the George M. Moffett Professor of Agriculture and Business, Emeritus, at HBS. A native of North Dakota, he received his AB from Harvard University, his MBA from HBS, and his Ph.D. in agricultural economics from the University of Minnesota.

Together with John H. Davis he developed the Agribusiness Program at HBS in 1955. From 1970 to 1997 he was the Moffett Professor of Agriculture and Business and head of the Agribusiness Program. Since July 1, 1997, as emeritus professor, he has chaired the Agribusiness Senior Management Seminars at HBS and currently teaches a course on Food Policy and Agribusiness at the Kennedy School at Harvard. He is also an Honorary Professor and a member of the Royal Agricultural College at Cirencester, England. He is coordinator of the Joint Business, Scientific, Public Policy, Consumer Policy Technology Committee of the U.S. Food System which meets annually at Harvard University. He received the Distinguished Service Award from HBS in June 2001.

Goldberg is the author, coauthor, or editor of 23 books and over 110 articles on positioning firms and institutions in the global value-added food system. He also has authored and supervised the development of over 1,000 case studies on various private, public, and farm cooperative firms and institutions in the global food system. His most recent publications involve developing strategies for private, public, and cooperative managers as they position their firms, institutions, and government agencies in a rapidly changing global food system. He is also conducting research on the major biological, logistical, packaging, and informational revolutions that affect global agribusiness managers as they attempt to cope with the volatile restructuring of major commodity systems.

Goldberg has served on over 40 boards of directors of major agribusiness firms, farm cooperatives, and technology firms. He has advised financial institutions on their agribusiness investments such as Rabobank, John Hancock, and Agriculture Technology Partners. He is one of the founders and first president of the International Agribusiness Management Association and an adviser and consultant to numerous government agencies and private firms.

Frank G. Ning

Chairman, COFCO Ltd.

Frank Ning is chairman of COFCO Ltd., the leading import-export group of cereals, oils, and foodstuffs in China and one of the country's largest food manufacturers. Founded in 1952 and based in Beijing, COFCO has substantial business interests in food and beverage production, commercial and residential real estate, hotel operations, financial services, and packaging. It has been included on *Fortune's* list of "Global Top 500 Companies" since 1994.

Ning is also chairman of COFCO's China Agri-Industries Holdings and China Foods, both listed on the Hong Kong Stock Exchange, and nonexecutive director of several companies around the globe.

Born in Shandong, China, in 1958, Ning obtained his bachelor's degree in economics from Shandong University and his MBA from the University of Pittsburgh. Before joining



COFCO, he was vice chairman and general manager of China Resources (Group) Co. Ltd. and China general manager of the China Resources Corporation.

Ning has been widely recognized for his leadership and achievements in the business community in China. Over the past few years, he has won a number of awards such as being named one of the 25 Most Influential Business Leaders in China by *Fortune* magazine.

Alberto Weisser

Chairman and CEO, Bunge Ltd.

Alberto Weisser is chairman and CEO of Bunge Ltd., a global agribusiness and food company. Headquartered in White Plains, New York, Bunge has over 25,000 employees and locations in more than 30 countries. It is the world's leading oilseed-processing company, the largest producer and supplier of fertilizers in South America, and the world's leading seller of bottled vegetable oils.

Weisser joined Bunge as its CFO in July 1993. He was appointed CEO in 1999 and chairman and CEO in May 2001. He has served on Bunge's board of directors since May 1997. Weisser is a member of the International Paper board and Rabobank's North American Agribusiness Advisory Board. He is also a member of the Council on Foreign Relations and the Council of the Americas.

Weisser has a bachelor's degree in business administration from the University of São Paulo, Brazil. He has participated in several postgraduate programs at Harvard, INSEAD, and other business schools.

Before joining Bunge, Weisser worked for the BASF Group for 15 years in Brazil, Germany, the United States, and Mexico.