



## Global Supply Chain

- Moderator: **Janice H. Hammond**, *Jesse Philips Professor of Manufacturing, Director of Faculty Planning*
- Panelists: **William K.L. Fung**, *Group Managing Director, Li & Fung Ltd.*  
**Willy C. Shih**, *Professor of Management Practice, Technology and Operations Management Unit*  
**Marjorie M.T. Yang**, *Chairman, Esquel Group*

### Overview

The global companies profiled in this session, Esquel, Li & Fung, and Flextronics, highlight very different global supply chain management models. Esquel is vertically integrated; Li & Fung has no manufacturing assets but coordinates manufacturers; and Flextronics has the infrastructure and capabilities to simultaneously manage supply chains for hundreds of thousands of different products.

The global financial/economic crisis will hurt demand and challenge the supply chains of each of these companies. It will require becoming more efficient and responsive; better matching supply with demand; continuing to have low prices; and considering the opportunities and risks presented through supplier financing.

### Context

These panelists offered their thoughts on the evolution of their companies' global supply chains and responded to questions about the impact of the financial crisis.

### Key Takeaways

- **Li & Fung Ltd. is a global trading company that has evolved its supply chain to address changing market conditions and meet changing customer needs.**

Mr. Fung described his company's history as a regional and then global trading company. Li & Fung first exported products from China, and then after 1949, exported low-cost consumer goods from Hong Kong.

The company became global over time as it moved the location of manufacturing to countries with lower-cost labor. Li and Fung shifted where it had goods made from Hong Kong to Taiwan, and then Korea, and so on to a list that includes more than forty countries today, such as Turkey, Honduras, Guatemala, and more.

Throughout this evolution, during which time Li & Fung has grown to almost \$12 billion in revenues, the company has never owned its own manufacturing plants. It has a large global network of manufacturing partners and is fundamentally a supply chain company that coordinates the activities of its partners around the globe. Its global network gives the company the ability to serve numerous clients simultaneously and to have large orders made at the same time by different factories in different countries.

In addition to its geographic scope, over time Li & Fung has also offered more supply chain services to meet customers' needs. Mr. Fung recounted that The Limited previously required all orders from Li & Fung in 30 days no

matter how large the order. But it then took The Limited three weeks to get the items from their distribution center to their stores. Mr. Fung offered a more efficient solution. Besides producing the goods for The Limited, Li & Fung could also pack and ship the items as required by each Limited store to cut down on this customer's total supply chain time—thus evolving from overseeing manufacturing to providing more comprehensive supply chain solutions. Despite initial objections from managers at The Limited, Li & Fung eventually assumed this responsibility.

In general, the company has benefited from two worldwide trends and several important decisions.

- **Key trends.** Li & Fung benefited from the widespread adoption of offshoring and outsourcing. Its network and supply chain management capabilities enabled the company to capitalize on these trends.

*"We are in the age of what I would call extreme outsourcing. Nothing is sacred if somebody else can do it better, faster, cheaper than you."*

— William K.L. Fung

- **Not owning manufacturing.** The decision not to manufacture but to coordinate has served the company well, resulting in partnerships with manufacturers.
- **Focus on specific product categories.** Li & Fung focuses on textiles; general hard goods like toys, shoes, and other household goods; and health, beauty and cosmetics; and is considering providing some food products.
- **Focus on specific markets.** Li & Fung sells mainly to the United States, Western Europe, and Japan. The company is also beginning to sell in China as the market there continues to grow.
- **Emphasize compliance on ethical issues.** Increasingly, customers and their consumers don't just care about price and quality; they want to know how products are made. This has led Li & Fung to focus on issues such as underage labor, sweatshop conditions, pollution, and unsafe ingredients like dyes that cause cancer and lead in products at unsafe levels.

- **The growth of Esquel Group is attributable to the company's vertically integrated supply chain.**

Ms. Yang explained that Esquel Group started 30 years ago as a Chinese manufacturing company producing dress shirts. Out of necessity, to meet the demands of customers for high-quality products, the company vertically integrated to control the quality of the cotton that was seeded, farmed, and spun. Eventually the company became international as sources for high-quality cotton and inexpensive labor required global reach and took account of



country-specific trading restrictions. Esquel's globalization parallels the global trajectory of China.

*"The growth of the company paralleled the opening up of China."*

— Marjorie M.T. Yang

Esquel Group has moved increasingly into higher-end manufacturing to avoid commoditization, taking on projects that other companies won't do. If another company can do something faster or cheaper, then Esquel is not interested. This is how Esquel creates competitive advantage. The company pushes its R&D department to meet the unique and often demanding requirements of clients like Hugo Boss and Nordstrom, which have extremely high standards. Ms. Yang recounted the extensive R&D and investments in farming, spinning, and manufacturing that were necessary to create a wrinkle-free, high-grade, cotton shirt with excellent hand feel that will not yellow or rip.

▪ **Flextronics is a diversified company that manages thousands of different supply chains.**

Flextronics, a \$35 billion company of 200,000 employees, turns out hundreds of thousands of products per day, mainly consumer electronics, all over the world. Each product has its own supply chain, creating tremendous complexity and interdependencies.

Enabling Flextronics to manage this complexity is the company's infrastructure and its supply chain capabilities. The company segregates its supply chains by consumer and product area and factors in geographic demand, component sourcing, and assembly. Each piece of the Flextronics supply chain also has its own supply chains. Creating a supply chain for a new product is extremely complicated and can take 9-12 months; it is almost "virtual vertical integration."

*"This is the notion of being able to take very complex products and break them down to unit manufacturing processes, which you can then ship out to low-cost countries and apply labor arbitrage, and then complicated supply chains come behind that."*

— Willy C. Shih

▪ **The current financial crisis will test the flexibility of established global supply chains.**

Demand for various products will be affected but is beyond the control of any company. What is controllable is how they manage their supply chains.

— *Keep prices low.* Mr. Fung sees the current situation as bad for his retail customers, who are responding by keeping low inventory. Still, they are demanding that their suppliers have flexibility in their supply chain. The major challenge is to keep prices low while still being able to respond quickly.

— *Improve efficiency.* Ms. Yang argues that while labor costs have risen in China as wages have increased, there is a significant opportunity to apply good management practices to the historically poorly managed apparel industry to wring inefficiencies from the system.

— *Manage the network.* More than ever, success is about managing the entire supply network. In some industries where the time and expense of transporting components is high, supply chain partners are locating near each other in "clusters."

— *Consider providing supply-side financing.* As banks stumble, suppliers are taking on an added role of financier, providing customers with financing and flexible terms. This has risks (like slow or no payment) but increases a customer's dependence on its supplier. There may be an opportunity to shift from relationship-based financing (banks) to transaction-based (supply chain).

▪ **China will remain a great source of labor and the Chinese domestic market will continue to grow.**

Panelists were asked to share their perspectives on where the next low-cost labor force will emerge and China's role in the future.

— *China still provides low-cost labor.* The interior of China still holds much promise for low-cost labor and Eastern Europe holds potential as well. Mr. Fung is also seeing movement into North Africa. He says that movement and investment into Southeast Asia and Vietnam are fashionable but those investments are being called into question by Vietnam's high inflation rate.

— *China is not one country in a business sense.* China is still most promising as a long-term provider of low-cost labor. But China, because of its size and diversity, is really multiple economies under one roof.

— *China's cushion is the growth of its local market.* Many foreign investors feel safe investing in China because if the export market slows, the growing domestic market will take up the slack. Historically many Chinese companies focused on just export-driven supply chains, but many are building supply chains to serve the domestic market. Ms. Yang pointed out that educated workers, such as engineers, who are available in China, are crucial to the product development that increases productivity overall. Mr. Shih believes that many things are best produced in China because that is where the supplier networks are.

— *Room for international retailers.* Ms. Yang believes that Chinese consumers will pay for quality products. In the near term international retailers have an advantage as they are seen as higher quality and more reliable.

— *Chinese brands will grow.* The perception that Western brands are higher quality will change as Chinese companies make better products and as they learn to brand and not just manufacture. Ms. Yang argued that good Chinese brands exist; they just need more time and exposure to grow.

## Other Important Points

- **Recommended reading.** *Competing in a Flat World: Building Enterprises for a Borderless World*, co-written by Mr. Fung, tells of the Fung brothers' experiences operating in a flat world and builds on Thomas Friedman's flat world



theories in his book, *The World Is Flat 3.0: A Brief History of the Twenty-first Century*.

- **Retail and 9/11.** Mr. Shih explained that the last few weeks in the retail sector have been reminiscent of directly after 9/11 when sales essentially went to zero. Then as now, there was concern and caution about the Christmas

season. Ultimately, the American economy did recover from that low point.

- **Trade, not aid.** Mr. Fung recounted the value of President Clinton's offering Nelson Mandela a program that emphasized trade over aid in allowing sub-Saharan and African countries duty-free access to the U.S. market.



## Speaker Biographies

### Janice H. Hammond (Moderator)

*Jesse Philips Professor of Manufacturing, Director of Faculty Planning*

Jan Hammond is the Jesse Philips Professor of Manufacturing at HBS. In the MBA Program she has taught courses in Supply Chain Management, Technology and Operations Management, Business Logistics and After-Sales Service, Decision Support Systems, Quantitative Methods, and Managerial Economics. Hammond has served as senior associate dean of Faculty Planning and Recruiting; unit head of the Technology and Operations Management unit; and faculty chair of the January cohort of the MBA Program. She has also taught in several HBS Executive Education courses for general managers, including Managing the Supply Chain; Manufacturing in Corporate Strategy; Retailing; and Managing Orders, Vendors, & Customers.

Hammond's current research focuses on speed and flexibility in manufacturing and logistics systems: specifically, how these systems develop the attributes necessary to respond quickly and efficiently to changing customer demand. An important component examines how coordinating mechanisms within organizations and along supply channels affects those channels' ability to compete. In particular, much of her work focuses on the interface between manufacturing and retail organizations. A portion of this research is being conducted in the textile and apparel industries under an industrial competitiveness grant from the Alfred P. Sloan Foundation. She is the coauthor with Fred Abernathy, John Dunlop, and David Weil of *A Stitch in Time: Lean Retailing and the Transformation of Manufacturing — Lessons from the Apparel and Textile Industries* (1999).

Interested in e-learning, Hammond has completed two online learning courses: a global supply-chain management simulation and a 20-hour online quantitative analysis course.

Hammond holds a BS in applied mathematics from Brown University and a Ph.D. in operations research from MIT. She has published widely on the topics of logistics and channel coordination and consulted and taught at several major U.S. corporations.

### William K.L. Fung, MBA 1972

*Group Managing Director, Li & Fung Ltd.*

William Fung has been group managing director of Li & Fung Ltd. since 1986. He joined the group in 1972 and became a director of its export trading business in 1976.

Fung graduated from Princeton University with a BS in engineering and holds an MBA from HBS. The Hong Kong University of Science & Technology awarded him an honorary doctorate of business administration in 1999.

Fung is a nonexecutive director of HSBC Holdings PLC, VTech Holdings Ltd., and Shui On Land Ltd. and a former member of the Hong Kong Trade Development Council. He

is past chairman of the Hong Kong General Chamber of Commerce, the Hong Kong Exporters' Association, and the Hong Kong Committee for Pacific Economic Cooperation.

Fung is the coauthor of the book *Competing in a Flat World*. In 2008 the government of the Hong Kong Special Administrative Region awarded him the Silver Bauhinia Star for his significant contribution to the development of Hong Kong as a leading international trading hub and for his outstanding public service in the areas of trade promotion and economic development.

### Willy C. Shih

*Professor of Management Practice, Technology and Operations Management Unit*

Willy Shih is Professor of Management Practice in the Technology and Operations Management unit at HBS. He teaches in the second-year elective curriculum of the MBA Program and in the Executive Education program.

Before joining the HBS faculty in 2007, Shih spent 18 years in the computer industry, mainly at IBM, where he played a significant role in the development of the PowerPC microprocessor and systems businesses, managing engineering and developing alliances with Apple Computer and Motorola. He later managed Digital Equipment Corporation's Alpha microprocessor-based engineering workstation business and its early Windows NT and UNIX marketing operations. This was followed by a stint at Silicon Graphics Computer Systems, where he led marketing for the Advanced Systems Division and its high-end, MIPS-architecture-based, high-performance computing systems and advanced graphics systems.

From 1997 until early 2005, Shih led the creation and growth of Kodak's consumer digital business, encompassing consumer digital cameras, printers, and consumables, and its Internet-based photo services. This included the introduction of Kodak's EasyShare system, which ultimately became the top marketshare consumer digital camera system in the United States and other significant global markets. He also led the acquisition and integration of Ofoto Inc. and helped lead that to become one of the top Internet photo-sharing sites. In his last year at Kodak, Shih led the Display and Components Group, which included businesses in CCD and CMOS silicon sensors and OLED display devices and associated materials. He was simultaneously the head of corporate intellectual property strategy.

Most recently, Shih was an EVP at Thomson, based in Paris, where he was cohead of the Technology Group. He oversaw corporate research, intellectual property and licensing, and two smaller businesses.

Shih is an experienced practitioner in the field of intellectual property, having structured numerous IP licensing programs, with extensive work in license negotiations and litigation. He received a BS in chemistry and the life sciences from MIT



and a Ph.D. from the University of California at Berkeley. He serves on the boards of directors of Atheros Communications Inc. and Flextronics International and is the nonexecutive chairman of QD Vision Inc.

**Marjorie M.T. Yang, MBA 1976**

*Chairman, Esquel Group*

Margie Yang is chairman of Esquel Group, a leading textile and apparel manufacturer with operations throughout the world.

After growing up in Hong Kong, Yang attended MIT, where she earned a BS in pure mathematics. In 1976 she received an MBA from HBS. In 1978 she returned to Hong Kong and became a founding member of Esquel. She was named chairman of the group in 1995.

Under Yang's leadership, Esquel has become vertically integrated. Its operations comprise cotton farming; yarn spinning; fabric, apparel, and accessories production; R&D; and design and merchandising services. Esquel's 47,000 employees across the world provide one-stop cotton-shirt solutions to Abercrombie & Fitch, Brooks Brothers, Hugo Boss, Next, Nike, Nordstrom, Polo Ralph Lauren, and Tommy Hilfiger. Esquel produces over 65 million shirts a year.

Yang sits on the boards of Novartis International AG., Swire Pacific Ltd., the Hongkong and Shanghai Banking Corporation Ltd., and CLP Holdings Ltd. She is also a member of the MIT Corporation and an honorary member of the Court of the Hong Kong University of Science and Technology.

Yang is a member of the National Committee of the Chinese People's Political Consultative Conference. She has a strong interest in conserving the country's environment and culture, especially in Xinjiang, western China. Yang has been chairman of the textile and clothing sector committee of the China Association of Enterprises with Foreign Investment (CAEFI) since 2003 and vice chairman of CAEFI since 2004. She is dedicated to strengthening cooperation among foreign-invested textile firms and enhancing communication with the Chinese government.

Yang is also interested in promoting education, particularly the development of young managers. She has been very involved with the MBA programs at Harvard, MIT, Tsinghua, Fudan, and Lingnan universities and sits on various advisory boards of these institutions.