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TCL Multimedia

Multimedia is like a car: there are different ways to go to the same place. If you confront an obstacle, go around it. We are very flexible and suited to change. This is characteristically Chinese.

TCL Thomson Enterprise is a milestone for China. If it succeeds, all the Chinese companies will follow. If we have trouble, they will not.

—Charls Zhao, President, TCL Thomson Enterprise

In spring 2005, TCL Group Chairman Li Dongsheng considered what TCL's most recent results said about its strategic and competitive position in the television market. Net profits for 2004 were HK$317 million ($40.5 million), down 51% from the previous year despite a 69% annual increase in turnover to HK$26 billion ($3.3 billion). He wondered if the company was on the right track. Already a leading consumer electronics manufacturer within China, Shenzhen-based TCL had begun to internationalize its television production in the late 1990s through majority-owned joint ventures in emerging markets around the world. The purchase in 2004 of the television assets of France's Thomson S.A. then made TCL—after just 12 years in the business—the world's largest television manufacturer. The Thomson assets, which recast TCL's Multimedia division as TCL Thomson Enterprise (TTE), a 67%–33% joint venture, gave TCL access to European and North American markets in ways its previous overseas forays had not. The deal also forced TCL to consider how to strengthen its technical and competitive position. Though TTE President Charls Zhao had targeted break-even in the United States and Europe in 2005, that achievement might have to wait until 2006.

World Television Production

In the 1960s, U.S. companies including CBS, RCA, and Zenith dominated world production of television sets. Color television, which used the same cathode-ray-tube (CRT) technology employed in earlier black-and-white models, became ubiquitous in the 1970s, several years after Japanese players Sony and Matsushita entered the fray. Japanese production efficiencies in the 1980s initiated a permanent shift in the locus of manufacture from the United States to Asia. High local labor costs in Japan and Europe led their TV makers to source components in South Korea and Taiwan throughout the 1970s and 1980s, and soon firms there were producing complete sets on an original equipment manufacturer (OEM) basis for markets in both the United States and Japan.

Professors Tarun Khanna and Felix Oberholzer-Gee and Global Research Group Senior Researcher David Lane prepared the original version of this case, "TCL Multimedia," HBS No. 705-404, which is being replaced by this version prepared by Professors Tarun Khanna and Felix Oberholzer-Gee and Global Research Group Senior Researcher David Lane. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

All of these manufacturers were quick to take advantage of the advent of China's opening in 1979, relocating both television assembly and manufacturing to benefit from China's lower labor costs. Consumer electronics manufacturing moved to China steadily through the 1990s to the point that one journalist concluded, "Nearly every chemical, component, plastic, machine tool, and packing material required in the manufacture of electronics components is now available within the Pearl River Delta area, making most components 20% cheaper in China than in the United States."[1] China's television manufacturers, which were said to number as many as 1,000 during the 1990s, consolidated into a handful of highly competitive electronics manufacturers, including Changhong (based in Chengdu, Sichuan Province), Hisense (Qingdao, Shandong), Konka (Shenzhen, abutting Hong Kong), and TCL. See **Exhibit 1** for a map of China indicating these sites.

Companies manufacturing televisions typically produced a portfolio of consumer electronics, balancing older, low-margin "cash cow" products with newer, high-margin, yet capital-intensive devices. As products matured, their manufacturers either consolidated or otherwise left the market. Over time, product life cycles had shortened as product penetration quickened: while VCR shipments did not reach 30 million units for 13 years, CD players and DVD players reached 30 million shipments in just eight and five years, respectively.[2]

Along with radio cassette players, portable audio devices, and VCRs, CRT televisions were the mainstay of consumer electronics firms into the 1990s, when digital technologies began to emerge. As the twenty-first century dawned, flat-panel display technology in the form of liquid crystal displays (LCDs) and plasma display panels (PDPs) had begun to displace CRT television sets and computer monitors in the United States, Europe, and Japan.[3] Analysts predicted global demand for displays would rise at over 13% annually to $113.5 billion in 2008,[4] meaning that 2003 sales of 160 million units would rise to over 200 million units by 2008.[5] Flat-panel technology was expected to account for nearly all of that growth. Similarly, the largest television sets used a variety of rear-projection technologies, all of which were displacing CRT technology. One such technology, the microdisplay, was slimmer, lighter, and brighter than its predecessor and usually cost half of a similar-sized PDP.[6] Shipments of microdisplay-based rear-projection televisions were expected to exceed 1.5 million units in 2004, up from 400,000 in 2003, and were predicted to surpass CRT television sales in 2006.[7]

The increasing availability of standardized flat-panel and video-integrated circuits (ICs) in the 1990s opened the market beyond the vertically integrated firms that previously dominated video-processing technology. Many of the newer players at first relied on original design manufacturing (ODM) orders for others. The shift from bulky, heavy CRTs to flat panels also lowered shipping costs, thereby making ODMs in low-cost regions competitive.[8] Japanese consumer electronics companies—typically vertically integrated—increasingly pulled back on their production of CRTs and CRT-based televisions, while Chinese television manufacturers stepped in, producing both for export and to supply the growing domestic market.[9]

Television sets dominated the $60.5 billion consumer electronics market in 2003, accounting for 35% of the market by volume and 62% by value.[10] In 2003, China accounted for 29% of the world's television production by value[11] and 40% of production by volume.[12] Prior to the Thomson acquisition, TCL ranked third in the world by number of sets sold, at 10.7 million units. Among domestic manufacturers, TCL competed intensely with Changhong, Konka, and Skyworth (Shenzhen) for Chinese sales. None had a significant market-share advantage. In 2002, Changhong had led domestic sales with a 17.2% market share. In 2003, Konka edged out the others with an 18.7% domestic share on sales of 7.91 million units to TCL's 7.83 million units.[13] For the third quarter of 2004, Konka was followed closely by TCL, each with an 18% share. Skyworth and Changhong held 13% shares.[14] CRT sets made up about 94% of China's 2004 television production,[15] though TCL was China's leading producer of LCD displays.[16]

TCL Origins and Growth

TCL was founded in 1982 as an audiotape manufacturer. One of the founders, Li Dongsheng, remained TCL Group chairman in 2005 and had led the firm into a series of consumer electronics product lines. Throughout the 1980s, it was TCL's production of handsets for fixed-line telephones that gave the company a reputation for quality. By the early 1990s, TCL also sold under the Tongli brand audio equipment made in a joint venture with a Hong Kong firm. An audio research and development (R&D) department was launched in 1992, focusing on product development and production efficiencies. Around the same time, TCL began to develop a national distribution system, after attempts to sell its audio equipment foundered when large distributors, primarily state owned, proved unwilling or unable to support the company's products. The distributors' primary interest was in turnover and cash in hand, and they did little if any product promotion. Distributors did not tell manufacturers how well their products were selling to retailers and paid no attention to subsequent retail sales. "Distributors lost interest in the product as soon as retailers purchased the inventory," one TCL manager recalled. TCL also launched its first advertising and marketing efforts in 1993–1994.

Under the Wangpai ("King") brand, TCL in 1992 began to sell color televisions that were produced by Hong Kong-based joint-venture partner Changcheng. TCL continued to purchase TVs from Changcheng on an OEM basis for domestic sale through 1996. According to one insider, TCL's shift into the manufacture of television sets came by happenstance:

> Starting TV sales was not due to any strategic foresight. The hi-fi business went into a slump. Chairman Li knew the head of Changcheng and had a good relationship with him. Changcheng lacked a license to produce televisions in China, but Mr. Li secured one, and TCL got an order from Changcheng to sell them. The hi-fi business had established a sales network that enabled us to sell our TVs. We also began TV production by chance, when the head of Changcheng died in a 1996 car accident. His wife decided to sell the business, but we did not have the resources to buy it. Our OEM relationship with Changcheng ended, and we had to build production facilities of our own. But we didn't pursue every opportunity that came along. We decided not to go into making VCD players in 1996. We also turned down real estate development, though both were booming at the time.

Instead, TCL in 1996 paid HK$150 million ($19 million) to form a joint venture with a Hong Kong manufacturer, Luk's Industrial, to produce televisions in Shenzhen. Luk's contributed its existing Shenzhen television factory, and TCL maintained a controlling interest in the venture, eventually building a new Shenzhen factory and moving its R&D operations into the old one. The deal also included Luk's television factory in Vietnam.

Though TCL was among the few major Chinese firms to establish distribution before manufacturing, it was not without teething pains. Terry Yi, who in 2004 was president of TCL's Overseas Business unit, recalled what he faced when sent in 1996 to overhaul the company's sales and marketing in one key market:

> Nanjing was a challenge. Jiangsu province was one of the first places where TCL had sold its products, and we were in competition there and in Anhui, the two provinces I was responsible for, with Panda [a local manufacturer]. At the time, TCL had one distributor per province, but that didn't mean the distributors understood us. In fact, we ended up sending senior people to convey our strategy to our sales outlets. For Jiangsu and Anhui, I did extensive research at the county level and significantly improved the sales network, which remained TCL owned. In every county, TCL chose two promising distributors whose culture and mission were close to ours, and we worked closely with them to craft a marketing and

> sales plan. Distributors were both state owned and private. We planned together with them for three years. There was no change to the basic distribution system, we just worked with them more collaboratively.

After a year that included closing TCL's sales organization in Anhui province, Yi increased sales from RMB 30 million in 1996 to RMB 190 million in 1997.[a] Through these and other efforts, TCL's TV sales exceeded RMB 100 million in 1995 and grew quickly in 1996 to RMB 1.3 billion once TCL did its own manufacturing. TV sales exceeded RMB 3 billion in 1997 and RMB 6 billion in 1998. As they did, TCL grew through acquisition, first buying a factory in Xinxiang, Henan province in 1997, another in Hohhot, Inner Mongolia in 1999, a third in Wuxi, Jiangsu in 2000, and a fourth in Nanchang, Jiangxi. The five centers also functioned as logistics and distribution centers. Unlike foreign multinationals that targeted customers in China's wealthier coastal provinces, TCL built national coverage: "north, south, east, west, and center." Even so, the company expanded only into locations where local government policy made it advantageous to do so.

From 1999, TCL began to integrate what had previously been isolated capabilities in production, R&D, and marketing. According to Shi Wanwen, TCL Multimedia president, "In early 2000, our TVs ranked third in China, but we were way behind [market leader] Changhong. We rose to number one by the end of 2003, partly through integration, partly by increased R&D spending, and partly improved production efficiencies. We did better than our competitors in these dimensions." The benefits of integrating sales with production and R&D were clear, Shi added:

> In 2001, price competition broke out among TV makers. However, we had forecast that some of our competitors were going to lower their prices. Based on this, we made adjustments to our procurement and sold off our old inventory. Therefore, the sets in the market on which we lowered our prices were brand new, while our competitors were left trying to dump their old inventory. We could sell at a cheaper price and faster than they did. That helped us survive. Our competitors were not as responsive to the market.

Shi elaborated on TCL's success factors. First, Li Dongsheng had anticipated major changes in the industry, as illustrated by his decision in 2000 to move TCL into big-screen TV production. Second, TCL's structure allowed and promoted innovative learning: "From TVs we went into PCs, mobile phones, white goods, and electronics components. TCL was the most comprehensive Chinese manufacturer." Third was a strong sales network, TCL's "biggest advantage," according to Zhao. The company had begun to monitor sales and inventory in certain parts of China via the Internet as early as 1997.[17] In 2003, TCL organized sales into 27 provincial-level companies that oversaw 167 sales offices in leading cities—each with its own profit and loss (P&L) responsibility—that in turn put TCL products on the shelves of some 20,000 domestic outlets. Two-thirds of TCL's senior executives active in 2004 had come up through the sales organization, one manager estimated.

Managers said that company culture also contributed to growth. Zhao explained that TCL differed from most Chinese enterprises, which tended to be either family owned or run as a strict, "militaristic" hierarchy: "TCL has an immigrant culture. That means independent ideas can flourish here. Chairman Li makes the rules of the game but leaves each manager with the autonomy to deliver results." He added that a personality test had revealed 35 of 40 TCL managers as "tigers": "TCL is full of tigers, each powerful within its own territory. Plus we move fast on our own initiative. We say, first have the son, then have a father."

[a] The RMB:$1 exchange rate was 8.27:1.

As handicaps, TCL managers listed the company's limited scale and technological capabilities relative to global competitors, a higher liabilities-to-assets ratio than its peers, and a relative dearth of employees with international expertise.[18]

Organization and Ownership

The TCL corporate structure was complex (see **Exhibit 2**). At the start of 2004, TCL operated eight business units: Multimedia, Overseas Business, Telecommunications, Home Appliances, Personal Computers, Consumer Electronics, Electronics Components, and CD/DVD distribution. Of these, Multimedia was the largest, encompassing 41 of TCL's 103 subsidiaries and generating RMB 10 billion in sales. Telecommunications, for which mobile handsets generated another RMB 8 billion to RMB 10 billion, came second, followed by Overseas Business (including most of the Philips TV and DVD products sold by Wal-Mart, for example), PCs at RMB 3 billion, Home Appliances at RMB 2 billion, and Consumer Electronics for about RMB 1 billion. Total 2003 sales reached RMB 39.3 billion (see **Exhibits 3** and **4** for additional data). Multimedia produced monitors, home theater, and audio equipment in addition to color televisions, but TVs accounted for 94% of 2003 division sales. All TCL business units were growing except mobile handsets, which had peaked in 2002, according to one manager. Another described the organization more broadly, as six functions—manufacturing, R&D, sourcing, supply, product planning, and finance—and four operating platforms—information technology, human resources, strategic planning, and six sigma.

As of mid-2004, the Huizhou government was TCL's largest single owner, with 25.22%. Managers and staff cumulatively held another 25.01%, strategic partners held 11.32%, and the public held 38.45% through listings of the TV business in Hong Kong in November 1999 and of the parent company, TCL Corporation, in Shenzhen in January 2004 (see **Exhibit 5**). TCL was unusual for a government-invested local firm in that the Huizhou government had acted only as a guarantor rather than as the source of funds for the initial RMB 5,000 investment made by the TCL founders. "The Huizhou government owns shares but keeps its hands off management because it's in their interest to do so," explained Zeng Nianliang, Multimedia finance vice president. Indeed, TCL in 1997 was "privatized." Prior to that time, according to one manager, TCL had been more concerned about survival than growth. In 2000, TCL reorganized into two stock companies. TCL took on foreign corporate strategic investors, including Sumitomo Trading and Toshiba in 2002 and Philips in early 2003. By 2004, managers asserted, TCL's government relations amounted to lobbying for favorable tax policies and for policy exceptions such as access to electricity in times of forced outages.

Operations

Financial Management

Zhao described TCL's centralized financial management as "conservative and stable." Centralized borrowing gave TCL access to better rates. Bank loans for the group amounted to over RMB 4 billion and came mostly from Huizhou, Shenzhen, and Hong Kong banks. Multimedia carried just RMB 200 million in loans on RMB 4 billion in assets.

All revenues were forwarded to the center, though a negotiated percentage of local sales was retained to finance local sales operations. In 1998, TCL reached agreement with the Bank of China and the Commercial and Industrial Bank of China to provide real-time settlement and transmission of funds from local offices to headquarters. This arrangement allowed for the repatriation of locally gathered revenues in six hours.

Speed was also of the essence for receivables. Given the narrow profit margins on consumer electronics, TCL maximized profits through high sales volume and tight receivables management, which averaged 9.7 days in 2002, ahead of many peers.[19] Group receivables collection declined from 22 days in 2003 to 14 days in the first half of 2004. Business unit receivables collection declined to nine days in the first half of 2004. Outstanding receivables amounted to RMB 10 million on RMB 10 billion of sales. This was the best in China, managers asserted, topping even Sony and Samsung, TCL's two primary benchmarks. In the first half of 2004, Multimedia paid RMB 60,000 in financial fees on RMB 4.6 billion in revenues.

Supply-Chain and Production Management

In 2003, Multimedia employed some 80 people in sourcing, including 34 incoming quality-control managers in Huizhou. The division bought about RMB 8 billion in products that year, including about RMB 2.5 billion in commodity items and RMB 1 billion of imported products, primarily integrated circuits and display panels. All picture tubes were made in China. China's electronic components supply was abundant; even TCL's Turkish plant imported 90% of its components from China. Japanese and Korean competitors also sourced from China, but TCL managers felt that their local knowledge gave TCL an edge. "After all," asked Li Yuguo, worldwide general manager for sourcing:

> If all the products have common components, why did TCL make RMB 500 million while the others all lost money? The answer is supply-chain management [SCM]. Factory competition is basically SCM competition. Sourcing is not just about buying things; it also includes supplier development, plant inspection, and the confirmation of contract terms and conditions. Also, the center optimizes production volumes among our five manufacturing centers.

TCL inventory turns exceeded those at its Chinese peers, reaching 4.5 times in 2002 (see **Exhibit 6**) and 5.4 times in 2003. TCL managers estimated inventory turns at their leading competitor, Changhong, as between one and two times. Better forecasting also allowed TCL to carry proportionately less inventory than Changhong. Li Yuguo detailed how TCL stayed in front:

> In our business, I can confidently say that we are the fastest, at 15 days between purchasing and production. Losses from materials in 2003 were less than RMB 2 million, and 60% of this was caused by changing product specifications and features after parts were already bought. In 2003 we eliminated about 24 procedures to maximize efficiency and simplicity. For example, last year purchasing managers were responsible for planning but not actual purchase orders or supplier delivery status. Yet people placing the orders weren't following up on delivery status either. So we gave all procurement responsibility to the purchasing management function. Now the whole chain knows what suppliers are doing.

R&D and Product Innovation

TCL prided itself on rapid product and process innovation, said Forest Luo, head of Multimedia R&D. Each business unit had an R&D department; Multimedia's was largest with 550 staff, followed by Telecommunications, which employed 350 to develop handsets. Multimedia's R&D spending historically ranged between 1% and 3% of sales but never exceeded 3% and was below that of most

TCL competitors. For 2005, TCL had a global target of 5% of sales for R&D expenditures. Luo justified this level by arguing that TCL's cost structure was lower than those of its benchmarks, Sony and Samsung:

> Sony is a technology leader, requiring higher R&D investments. We make profitable use of older technology. We don't do collaborative research. While there is a need for this, there's no suitable means to achieve it. We might get involved with a manufacturer to get what we need made. For example, Samsung may not have a tube on the market yet, so I'll give them our specifications so that it biases them towards filling our needs and away from others.

Different players competed against TCL along each element of the TV value chain: chassis (which involved the integration of IC, software, and parts), display (CRT and flat-panel expertise), and cabinet (tooling). TCL excelled at making cabinets and non-flat-panel displays, and R&D goals included increasing production throughput and matching designs to consumer taste. "We value speed," explained Luo. "Control of intellectual property is not important to us. We work with outside research labs opportunistically, and though we are weak in patents, we are good in manufacturing." Industrial design was a key TCL competence and the focus of dozens of designers. Thus, while certain testing instruments might cost $40,000 if bought from Hewlett-Packard, TCL made its own at considerable savings.

"Ideas for new products come in from the marketing side," said Shi:

> Those that are deemed worthy are passed to R&D, which evaluates the concept, technology, and resources and creates product development road maps for those that pass muster. Prototype evaluation is followed by quality and market evaluation. The process normally takes six months or so for a new product. Changes to existing products can be done in a month or two. Obviously we can reject ideas much more quickly.

New features and product extensions were developed continuously, Shi added: "We were the first to produce Web TV, surge-protected TV, and energy-saving TVs. There are so many examples where we were first with a feature. In Southeast Asia, the cabinets on our TVs can be changed with the seasons. Those are quite popular." Another example came from a sales executive's suggestion to integrate hi-fi audio with a TV set so that the audio remained functional when the TV was turned off. The product played TV programs in higher-than-normal fidelity and appealed to customers who did not want to purchase separate TV and audio systems. "We did feasibility, sourcing, design, R&D, and production all in one month. It was very profitable," Shi said.

Marketing

TCL came late to marketing, according to Shi, who built up that function after 2000: "At TCL, the distinction between sales and marketing was not clear." However, by 2004, TCL marketers had developed a strong database on consumer purchasing behavior. They divided China into four income categories. The large affluent cities—Beijing, Shanghai, Guangzhou, Shenzhen—came first. In the next segment were cities such as Chengdu (Sichuan province), Nanjing (Jiangsu), and Xian (Shaanxi). After them were the less developed cities and counties. Most product-marketing initiatives were local, appealing to local tastes, Shi said: "Rural consumers like big things cheap. Urban buyers want flat screens and vivid color. In Beijing you will sell more plasma, LCD, and high-definition products. But the farmers out west are buying 21-inch or 25-inch CRT sets."

Despite increasing product segmentation, Shi said that TCL managers devoted little time to the development and use of a corporate brand. Instead, they acted opportunistically to capitalize on market trends. Nonetheless, a 2003 assessment by a Beijing agency valued the TCL name at RMB 26.7 billion, sixth among domestic brands.[20]

International Expansion

TCL's international experience began in 1998, when it took over a Luk's factory in Vietnam that had been operating for two years. After a few weeks in Vietnam evaluating the operation's potential, Yi realized that there was a local market for televisions that most of the Japanese and Taiwanese manufacturers in Vietnam producing for export had ignored. After informing Li that the business was worth pursuing, Yi built up market share in Vietnam before branching out into sales and then production in the Philippines, Indonesia, and Thailand. By 2004, TCL held 18% of Vietnam's television market. TCL also had 40% shares of the Pakistan, South Africa, and Sri Lanka TV markets. Yi explained how pivotal his Vietnam experience was as a springboard to Southeast Asia:

> There were lots of foreign firms there. The distribution system was still weak, so it made sense to develop our own marketing and sales channels. We did a market survey to get a sense of how Vietnam was different from China. Success in Vietnam gave us practice and the confidence to go on to Southeast Asia. We were so busy with these markets that none of us were worrying about entering the U.S. or Europe.

According to Yuan, part of the rationale for international expansion was that "being number one in China is not enough, even if we have half of the domestic market. The run-up to China's WTO [World Trade Organization] entry meant that TCL had to be ready for international competition." Zhao offered more idealistic goals: "The country can't be strong without top-level firms, but China has no brands besides Lenovo or Haier." Yi suggested some practical bases for internationalization:

> First, we are a Guangdong company: we are aware of the international opportunity. Second, domestic competition was strong. We were top five, but that was not enough to ensure strength. Third, we already had a certain domestic foundation to build upon. Finally, the July 1998 foreign exchange crisis in Southeast Asia reduced our exports through Hong Kong. That led us to want to go direct to understand local demand and reduce volatility.

TCL took a consistent approach when entering emerging markets, especially in the first years, emphasizing each market's characteristics and holding focused trials to see what worked. TCL also chose for international sales products with the most homogenous consumer purchasing characteristics across countries: mobile phones and televisions. White goods and consumer electronics sales, segments in which international tastes were more varied, were left for sale within China only. Usually TCL took a majority stake in local joint ventures. TCL also preferred niche and local markets to national coverage.

In doing so, TCL managers were clear that they were learning from the failed internationalization strategies of other Chinese firms, which in their view had been too aggressive. Changhong and Konka used local trading partners to enter the Russian market, for example, but did not work with them to ensure that the trading companies understood and promoted the Chinese brands. In contrast, TCL took its time to understand the local culture before entering the market. It also moved more deliberately. In Russia, for example, TCL initially worked with partners in Moscow and the Russian Far East to be sure that TCL product features would suit local tastes. Half of TCL's Russia sales were made under its own brand, and half were sold on an OEM basis.

Beyond Southeast Asia

In 2001, TCL managers began talking to potential partners in Korea, the United States, and Japan about ways to mount a major push into western markets. "We hired some retired managers from Toshiba, Matsushita, and LG to advise us, to help plan our globalization," Yuan recalled. In 2002, using primarily its Vietnam factory, TCL produced and sold 195,000 color TVs to emerging markets outside China, accounting for 15% of the group's total sales. The picture in the United States and Europe was very different, however. In the United States, distribution channels were more sophisticated. Margin pressures were strong, and expectations about product preparation and delivery date were demanding. "We can be docked 50% for missing delivery dates in Europe or the United States," Yi noted. At the same time, TCL managers were aware that Konka had "failed miserably" in its attempts to sell direct in the United States. Selling as an OEM was both a way to enter the U.S. market and a way to upgrade TCL skills through forced compliance with legal and consumer protection measures. "Through OEM we tested our products and learned about the U.S. market," Yi explained.

In Europe, low-cost manufacturers such as TCL ran up against antidumping laws, Shi recalled:

> We tried to enter the European market in 1989, but antidumping policies basically kept us out. Even in 2002, Chinese manufacturers were restricted to selling 400,000 units in the EU, a market with annual TV sales of 22 million units. We did try to sell through agents there, but we had no brand name or price advantage. In North America also, our sales through distributors were disappointing. We chose to go around these barriers through mergers and acquisitions.

In September 2002, TCL acquired Schneider, Germany's seventh-largest TV producer, for €8.2 million.[21] Based in Turkheim, Schneider had a 113-year history but had halted TV manufacture in May 2002. At the time, Schneider had 650 employees[22] and three TV production lines with total capacity of 1 million units.[23] Both sides saw the virtues of cooperation. TCL managers had correctly perceived that the EU TV sector would consolidate: older manufacturers were looking to escape the constraints of high operating costs, and partnering with Chinese manufacturers looked attractive. To Schneider, TCL underlined its uniqueness—customer focus, careful expansion, and no competing direct-sales presence in the EU. According to Yuan:

> Schneider's main problem was high costs. Given their assets and brands, the purchase price could have been very high. But because the local government didn't want the plants to close and create unemployment, our cost was very low. We thought we might integrate some of our low-cost technology, such as circuit boards, and let Schneider do the assembly in Spain or Portugal and sell the sets in Germany. A Schneider TV has German design and a recognizably German history. But the insides are not visible. We ship unassembled TVs designed to German taste to Schneider to assemble locally. It preserves jobs, gives us a brand, and avoids antitariff barriers.

TCL planned to rehire 100 Schneider employees to operate two of the firm's three production lines.[24] In October 2003, however, Li Dongsheng conceded that the plans faced challenges. "Production in Germany is too expensive," he said. End-of-September sales within Europe reached €20 million, but at the time Li was still hoping for €100 million for 2003 on the basis of upcoming contracts despite Schneider's declining market share. Growth was to come from flat-screen as well as LCD or plasma TVs.[25] As of mid-2004, though Yuan said that unit sales doubled in its first year of ownership, TCL had not yet turned around Schneider's loss-making operations.[26] In late September 2004, TCL did not renew the lease on Schneider's production facilities. German media reported that TV production would stop in 2005 in Turkheim and that 70 of the 120 employees would be laid off. The rest would continue to run marketing, distribution, and R&D in Bavaria.[27]

In 2003, TCL spent $5 million to buy Go Video in the United States, a 100-person, $200 million company that sold audio and portable audio equipment to retailers such as Radioshack. Previously, TCL sold CD players to Go Video on an OEM basis. "Mainly they have a good knowledge of sales channels," Yuan said.

The Dragon Tiger Plan

Televisions became TCL's biggest business in 1999, and from 2000 TCL executives targeted annual growth of 5% to 2010. "Regardless of sales numbers," Yuan qualified, "it became more important to become a top three global producer in all our product lines." To this end, TCL in 2003 embarked on a conscious policy of internationalization encapsulated by the Dragon Tiger plan. The plan stipulated that, by 2010, TCL would be among the world's top three TV and handset makers and, within China, among the top three producers of information technology (PCs and laptops), white goods (washers and dryers, refrigerators, and air conditioners), light switches and fixtures, electronic components, and the distribution of CD and DVD disks. In 2003 TCL was already China's largest distributor of CDs and DVDs, including Sony and Warner Music products.

The Thomson Venture

To reach the global prominence set out in the Dragon Tiger plan required much more, however: a strong TCL presence in Europe and North America. Yuan elaborated:

> Our emerging market strategy is not appropriate for the U.S. and European markets, where distribution networks are well established and consumer behavior is relatively uniform. The Chinese model just won't work. So we decided to cooperate with Thomson to utilize the strengths of each company. Thomson has good R&D and knows the North American market well, so we gain sales channels, brands, and technology.

In January 2004, TCL and Thomson signed an agreement creating TTE (TCL Thomson Enterprise), a joint venture (JV) that combined the television assets of each. TTE would sell Thomson-branded sets in Europe, RCA sets in North America, and TCL and Thomson TVs everywhere else. TTE officially started operations in August 2004, and Li Dongsheng was made an Officer de La Legion D'Honneur in September, the highest honor France had yet bestowed upon a Chinese entrepreneur.[28] TCL owned 67% of TTE through TCL International, the Hong Kong-listed subsidiary of TCL Group. In addition to its television manufacturing and R&D assets, Thomson contributed €70 million, the option to either acquire Thomson's global DVD business for no additional consideration before December 2004 or receive another €20 million in Thomson assets up to €33 million in reimbursed restructuring costs, as well as other production and current assets, for a total of approximately €218 million. TCL in turn contributed its entire television business, including all fixed assets in China, Germany, and Southeast Asia, for a total of about €210 million. Said Yuan, "We acquired Thomson's plants in Poland, with a 3 million unit capacity, in Mexico (4 million units), and in Thailand. Together with this Thomson JV, we are producing about 22 million units of the 120 million sold each year, the most in the world."

The resulting entity would generate 34% of its revenue from China where the TCL brand dominated, another 34% from Thomson's 12% market share for its RCA brand in the Americas, and 28% from Thomson's 8% market share in Europe.[29] Separately, Thomson would receive commissions from TTE for the use of its sales and distribution networks in Europe and the Americas. TCL would also pay Thomson royalties for its use of Thomson-patented technology.

Yuan explained the background of the deal:

In 1991–1992, we were procuring a lot of parts and technology from Thomson, so they understood our company and our growth very well. After Thomson privatized and restructured in 1998, their Asia regional head talked to chairman Li and I in 1999 about a joint venture. There was some divisiveness, as they wanted 51% of a new JV that would include our sales channels. We didn't accept this. We proposed two firms: one selling high-end products—LCD and high-definition TVs—that Thomson would hold 51% of, and one low-end company making CRT sets that TCL would own 51% of. But Thomson wanted 51% of each of those businesses as well.

After suspending talks with Thomson, our CEO devoted his attention to finding another global partner. We hoped for Japanese or Korean partners, but they were not as willing to share their knowledge as the Europeans. So we spent a lot of effort on this, starting in 2000. Philips at one point offered RMB 2 billion for our sales network. Though we rejected the offer, Philips still wanted us to ODM for them because their manufacturing costs in China were too high. Philips' ODM requirements were very stringent. We learned a lot from them about planning, communication, production, quality management, and operations. They felt that the faster we learned, the better their products would get. In globalization, you cannot skip this step of helping others produce. You can accelerate it, but you cannot skip it.

While TCL was working with Philips, Thomson managers held talks with Changhong and Konka that gave them a more realistic view of their own bargaining position with respect to the Chinese firms. In France, Thomson was privatized in 1998, and in 2003 its consumer electronics division lost €124 million on revenue of €3.2 billion. In China, Thomson therefore returned to TCL and agreed to its terms. **Exhibit 7** shows Thomson and TCL income statement data for 2002–2004; **Exhibit 8** shows quarterly change in TCL revenues.

TCL's deal with Thomson in some ways resembled Lenovo's $1.25 billion purchase of IBM's PC division in December 2004.[30] Lenovo PCs would be marketed through IBM's worldwide distribution and sales network. (Eighty percent of PCs worldwide sold through retailers and other resellers.)[31] Lenovo also received the right to use the IBM name on its PCs for five years—it would retain the ThinkPad and ThinkCentre names permanently—and became IBM's preferred PC supplier. In turn, IBM became Lenovo's preferred supplier of services and financing. The deal made Lenovo the world's third-largest PC maker behind Dell and HP, with revenues of about $13 billion on 14 million units. By share, this amounted to about a third of the China PC market and 7% of the global PC market. The goal was to double profits in three years and to displace Dell or HP as number two by 2010. More immediately, a Gartner research note asserted that Lenovo would have to increase profits by 2% by the second half of 2006 to fund growth and an anticipated market downturn.[32] It was clear that both sides had room to learn: IBM learned to meet Chinese expectations after failing to send a car to the airport for arriving Lenovo executives, while Lenovo came to understand the symbolic value of retaining New York over Beijing as world headquarters for its newly global operations.[33]

Just as Lenovo anticipated with IBM PCs, for the short term at least, TTE would focus on sales of the predominant product, the CRT set, said Shi:

We understand that Thomson's U.S. losses are significant, so we must keep their cash flow steady. For this to happen, our CRT business must predominate. LCD and plasma are definitely the trend of the future, but right now volumes are small but investment is big. We are a follower in this area because we lack the core technologies, so we'll try to produce more cheaply and efficiently. We don't make our own panels, so it's not very practical for us to invest heavily in this area. However, we will invest heavily in a projection-TV technology that Thomson has already done a lot of research on and has some advantage.

"Our strategy is clear," Yuan explained. "We want to create value in consumer products, sell high-margin products at the high end, reduce costs by increasing unit sales volume, and run an efficient supply chain."

Looking Forward

TCL managers distinguished both competitive and integration challenges ahead of them. Universally, they perceived their strongest competitors as LG and Samsung, not firms from Taiwan or Japan. The Korean firms had advantages similar to TCL: efficiency, low costs, and aggressiveness. Li Yuguo summarized: "Japan lacks efficiency and is not aggressive, though it has advanced technology. Although they are very persistent, Japanese companies react very slowly. Taiwan only does supply-chain work. It has no other advantages—neither brand nor sales and marketing. But the Koreans are very fast; Samsung has already surpassed Sony."

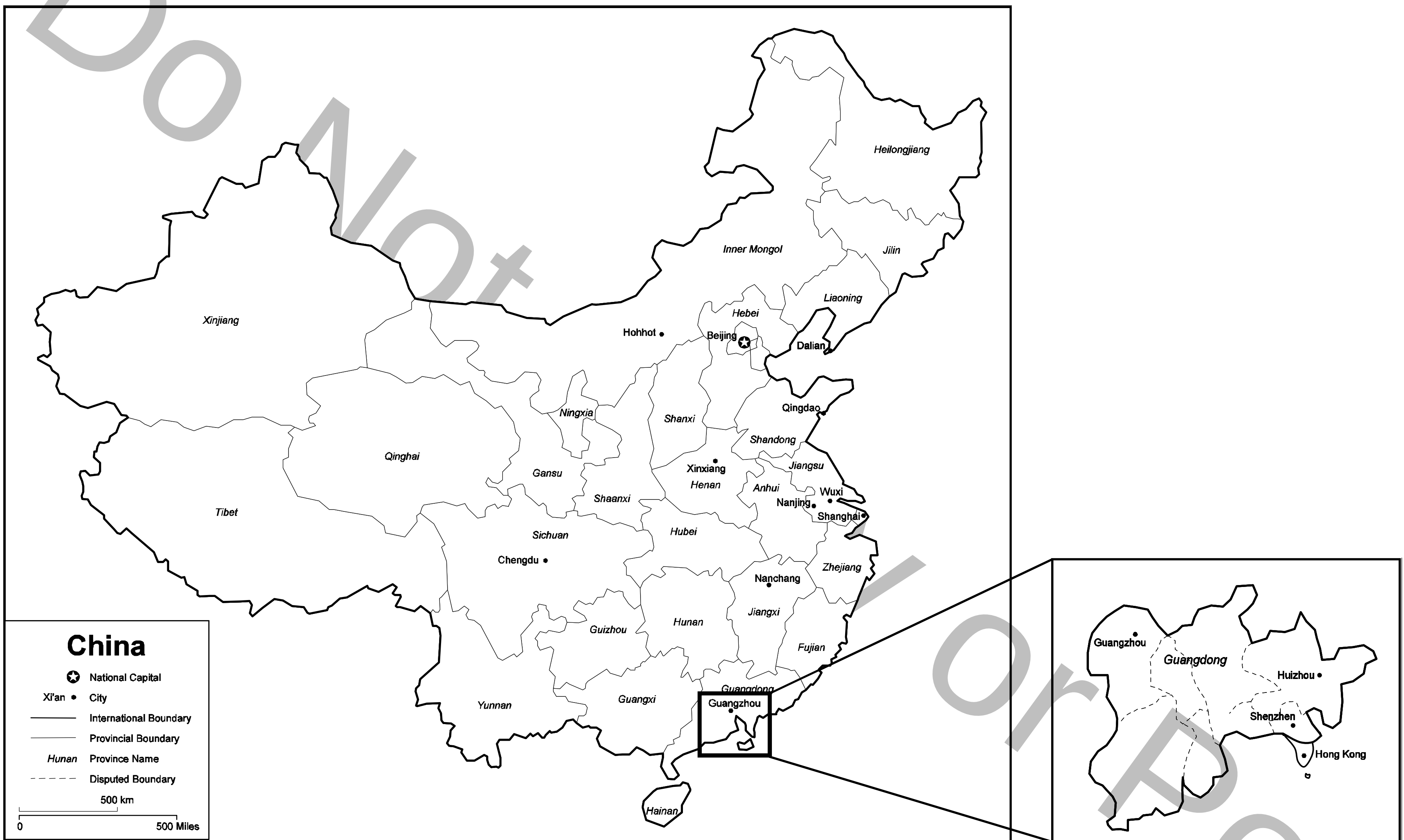
Integration also posed challenges. Li Yuguo summarized his perceptions:

> Chinese companies are still behind in technology, but our biggest advantage is our flexibility and finesse. We find Thomson a bit slow in reacting. So now we have to see whether we can infuse TCL's flexibility into TTE to make it a strong organization. We already contribute our low-cost structure to Thomson, but can we bring TCL supply-chain efficiency to Thomson? We are targeting €50 million savings in North American sales.

Yi pointed to immediate problems in India, Russia, Singapore, Mexico, and Latin America, where TCL operations overlapped with Thomson's. In all locations, TCL aimed to eliminate unnecessary costs, become more aggressive and pragmatic, and improve supply-chain efficiency. To this end, TCL hired K. S. Cho, a South Korean executive, to head up the integration effort. Cho had previously overseen the integration of Samsung's purchase of the assets of AST Computer, a U.S. firm. By mid-2004, international integration had already occupied 200 people at headquarters and was taking place elsewhere in the company as well: "We've seconded 1,000 R&D engineers at each other's companies so far, half here and half at Thomson." TCL's cost advantages were clear: Chinese hourly manufacturing wages averaged $1.01 in 2003 compared with $8.79 in France[34]—but this gap created thorny problems for TTE executives: top Chinese managers who headed the venture's only profitable operations there earned less than foreign subordinates in the unsteady U.S. and European segments.[35]

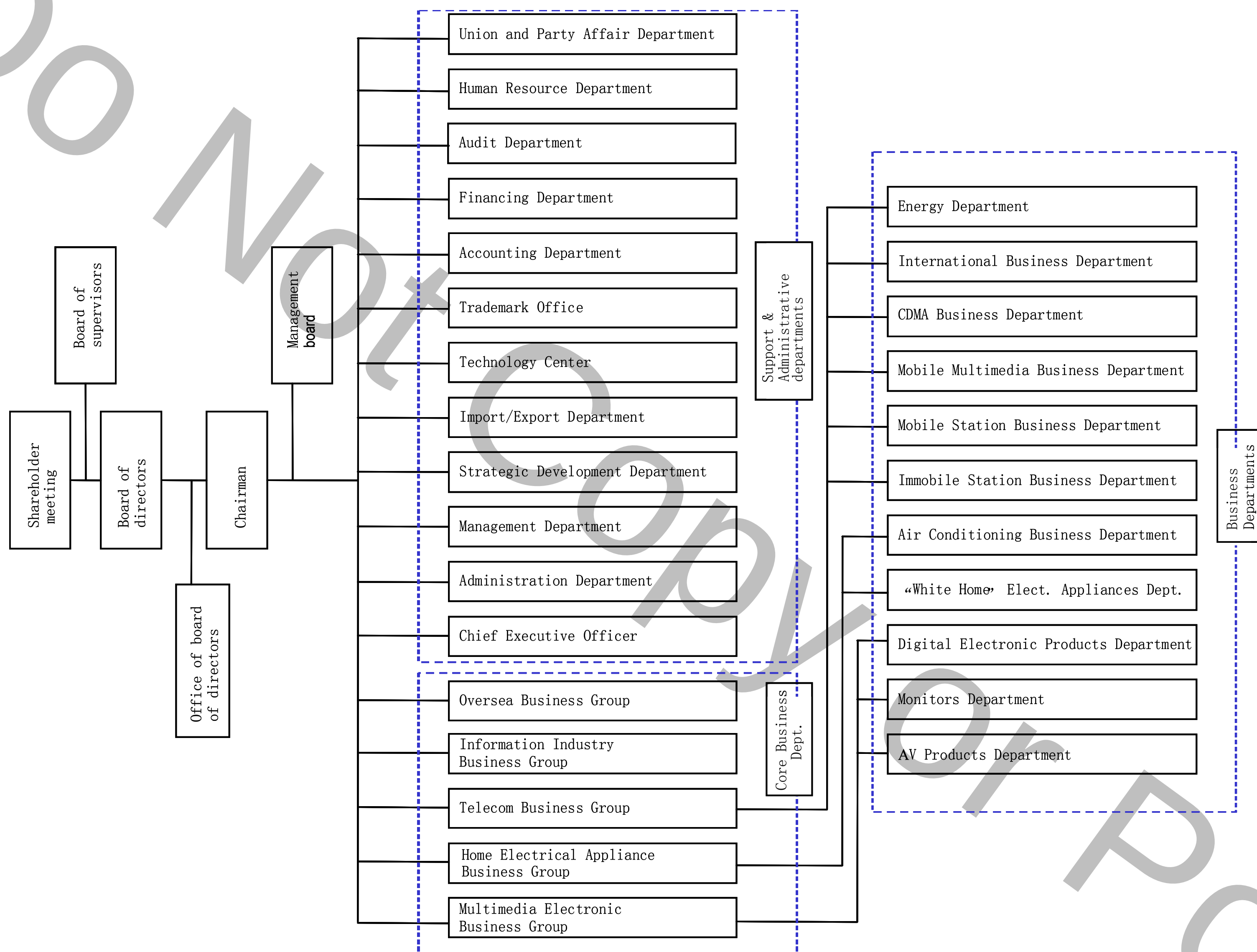
"We are large but not strong," conceded TCL managers, particularly compared to the scope, product diversity, and advertising budgets of LG and Samsung. To support TCL's overseas operations, China's Export-Import Bank made the company two loans, including one of RMB 6 billion.[36] But after three months of integration, senior TTE executives reported that "the challenges and difficulties are deeper than we thought"[37] and in spring 2005 pushed TTE's expected break-even date into 2006. In addition to the compensation gap, problems reportedly included linguistic barriers and unexpectedly high costs in European operations.[38] But the alternatives were worse, argued TTE finance chief Vincent Yan: "It would take five or 10 years to reach the level of recognition that Thomson and RCA have in their markets. And in that time, anything can happen. So instead of taking that risk, we took this risk."[39]

Exhibit 1 Chinese Provinces and Major Cities, 2004



Source: Adapted by casewriter from http://www.lib.utexas.edu/maps/cia04/china_sm04.gif, accessed February 25, 2005.

Exhibit 2 TCL Group Structure, Year-End 2003



Source: TCL International , IPO Prospectus, January 7, 2004, pp. 1-1–59.

Exhibit 3 TCL Sales by Product Category, 2000–H1 2003 (in RMB 10,000)

	2000	2001	2002	January–June 2003
Multimedia Electronics:	753,025	753,228	1,040,655	545,784
Color TVs	728,933	712,667	982,969	516,772
Monitors	66	13,191	20,907	14,539
AV products	24,026	27,370	36,778	16,473
Communications:	88,499	275,930	877,213	538,634
Fixed line phones	55,756	53,655	37,991	16,375
Mobile phones	27,142	215,917	832,750	515,734
Batteries	5,631	6,358	6,472	6,525
Household Electronics:	90,927	100,110	75,679	70,553
Refrigerators	10,783	25,547	8,648	16,907
Washing machines	38,938	27,556	11,599	8,243
Air conditioners	41,206	47,007	55,432	45,403
Personal Computers:	117,248	92,030	153,262	73,440
Components and Fixtures:	26,094	30,590	39,689	20,993
Other:	93,361	84,991	69,616	42,065
Total	**1,107,797**	**1,276,866**	**2,211,651**	**1,270,568**

Source: TCL International IPO Prospectus, January 7, 2004, pp. 1-1–97/98.

Exhibit 4 Summary TCL Financials, 2000–H1 2003 (in RMB 10,000)

	2000	2001	2002	January–June 2003
Total assets	91,513	186,391	491,497	555,908
Total liabilities	58,987	132,534	334,120	381,052
Shareholders' equity	26,883	28,098	44,299	57,666
Assets/liabilities	64.5%	71.1%	68.0%	68.5%
Main operating revenues	92,294	276,901	872,259	525,775
Annual increase in revenues	n/a	200.0%	215.0%	51.2%
Operating income	-11,561	20,613	115,489	47,449
Net income	-8,356	2,154	27,639	14,518
Annual increase in net income	n/a	488%	1183%	28%
EPS (RMB)	-0.444	0.115	1.469	0.7718
Net assets per share (RMB)	1.429	1.494	2.355	3.0656
EPS/Net assets per share	-31.08%	7.67%	62.39%	25.2%

Source: TCL IPO Prospectus, January 7, 2004, pp. 1-1–90.

Exhibit 5 TCL Group Ownership, 2004

Rank	December 30, 2003		June 30, 2004	
1	Huizhou Investment Holding Co., Ltd.	40.97	Huizhou Investment Holding Co., Ltd.	25.22
2	TCL Corp. Trade Union Committee	14.79	TCL Corp. Trade Union Committee	9.10
3	Nam Tai Electronics Inc.	6.00	Li Dongsheng	5.59
4	Philips Electronics China BV	4.00	Nam Tai Electronics Inc.	3.69
5	Lucky Concept Ltd.	3.00	Philips Electronics China BV	2.46
6	Regal Trinity Ltd.	3.00	Lucky Concept Ltd.	1.85
7	Toshiba Corp.	2.00	Regal Trinity Ltd.	1.85
8	Sumitomo Trading Corp.	0.38	Toshiba Corp.	1.23
9	Li Dongsheng	9.08	Yuan Xincheng	0.96
10	Yuan Xincheng	1.56	Zhen Quanlie	0.91
11-50	Other TCL managers	15.22		

Source: TCL Group IPO Prospectus, January 7, 2004, pp. 1-1–45-46, and http://finance.sina.com.cn/stock/company/sz/000100/4.shtml, accessed January 13, 2005.

Exhibit 6 Inventory Management Statistics, TCL Group and Listed Competitors, 2002

	Inventory Book Value (RMB mn)	Planned Reductions (RMB mn)	Expected Savings (%)	Inventory Turnover (x)
Color TVs				
Changhong	9,675	277	2.9%	0.9
Konka	3,167	122	3.8%	3.3
Xoceco (Prima)	802	41	5.1%	2.7
Hisense	1,323	30	2.2%	3.3
Average	*3,742*	*117*	*3.1%*	*1.7*
Mobile phones				
Bird	2,030	333	16.4%	4.7
Kejian	390	7	1.8%	6.0
Amoi Electronics	1,089	95	8.7%	4.3
Average	*3,509*	*434*	*12.4%*	*4.8*
TCL Group	4,517	159	3.5%	4.5
Color TVs	2,032	38	1.9%	4.2
Mobile phones	1,477	74	5.0%	5.6

Source: TCL Group IPO Prospectus, pp. 1-1–229.

Exhibit 7 Thomson and TCL Income Statements, Year-End 2002–2004 (in $ million)

	2002	2003	2004
THOMSON			
Sales	$9,630.8	$9,572.8	$9,925.5
Cost of sales	6,920.3	7,010.7	7,699.3
Gross profit	2,710.5	2,562.1	2,226.2
SG&A	1,261.2	1,267.5	1,290.0
R&D	353.6	333.8	397.3
Operating income	605.1	488.9	538.9
Restructuring charge			921.3
EBITDA	1,053.2	960.8	-419.7
Pretax income	393.3	109.8	-680.4
Net income	352.6	29.4	-789.7
TCL			
Sales	$1,562.6	$1,944.9	$3,165.6
Cost of sales	1,257.0	1,601.5	2,725.3
Gross profit	305.6	343.4	561.8
SG&A	238.5	250.4	474.1
R&D	7.9	7.3	30.9
Operating income	34.0	63.6	81.5
EBITDA	58.8	89.0	44.9
Pretax income	83.8	94.2	56.4
Net income	73.1	82.4	40.7

Source: Standard & Poor's, Global Vantage; company reports.
Note: Figures may not match those in **Exhibits 3**, **4**, and **8** due to differences in data sources.

Exhibit 8 TCL Multimedia Quarterly Revenues, 2003–2004 (in HK$ million)

	Q1 2003	Q2 2003	Q3 2003	Q4 2003	Q1 2004	Q2 2004	Q3 2004	Q4 2004	2003	2004
TVs	2,961	2,219	3,095	4,148	3,307	2,810	5,963	9,715	12,422	21,795
Total	3,477	2,771	3,731	5,170	4,026	3,819	6,983	10,772	15,149	25,600
QoQ	-5%	-20%	35%	39%		-22%	-5%	83%	54%	
YoY	16%	16%	19%	41%	16%	38%	87%	108%	24%	69%

Source: Company data, cited in Jack Tse, "TCL Multimedia," Bear Stearns Equity Research, April 26, 2005, p. 4.
Note: HK$7.8=US$1.

Endnotes

[1] Pete Engardio and Dexter Roberts, "'The China Price,'" *BusinessWeek,* no. 3911, December 6, 2004, p. 102.

[2] Eric Elalouf, Nicolas Gaudois, and Yuki Sugi, "Thomson: From Black Box to Box Office," Deutsche Bank Equity Research, July 9, 2003, pp. 123–126.

[3] In May 2004, analysts projected production numbers for PDP TVs to double in 2004 and to grow at compound annual rates of 57% from 2003 to 2007. Paul Semenza, "Television fuels TFT-LCD growth," *EE Times,* May 28, 2004, available at www.eet.com/article/showArticle.jhtml?articleId=21400220, accessed January 12, 2005.

[4] "World Electronic Displays," *Freedonia,* no. 1867, November 2004, www.freedonia.com, accessed January 11, 2005.

[5] The current ramp-up in production began at the end of 2003, when Samsung, Chi Mei Optoelectronics, and Quanta Display began production at their new fifth-generation fabs. At the end of 2003, these companies were operating a total of seven such plants. Another eight fabs were set to open in 2004, at an estimated cost of up to $2 billion each. See Paul Semenza, "Television fuels TFT-LCD growth," *EE Times*, May 28, 2004, available at www.eet.com/article/showArticle.jhtml?articleId=21400220, accessed January 12, 2005.

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[8] Ibid.

[9] In 2003, 42.3 million television sets sold in China. "China's Konka Top TV Seller in 2003 with 18.7 Pct Domestic Market Share," AFX Asia, March 23, 2004, available from Factiva, www.factiva.com, accessed January 13, 2005.

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[13] "China's Konka Top TV Seller in 2003 with 18.7% Pct Domestic Market Share—MII," AFX Asia, March 23, 2004, available from Factiva, www.factiva.com, accessed January 13, 2005.

[14] "New DisplaySearch Report Provides TV Shipments for All Regions and Technologies by Brand," *Business Wire*, January 3, 2005, available from Factiva, www.factiva.com, accessed January 13, 2005.

[15] Ibid.

[16] Ibid.

[17] TCL IPO Prospectus, p. 100.

[18] Ibid., p. 101.

[19] Ibid.

[20] Ibid., p. 100.

[21] Ibid.

[22] Rico Ngai, "Update 2: TCL To Buy German TV Maker for 8.2 Million Euros," *Reuters News,* September 19, 2002, available from Factiva, www.factiva.com, accessed February 10, 2005.

[23] "China's Electronics Giant TCL Said To Acquire Germany's Schneider Electric Appliance Co.," *Interfax China Business News*, September 17, 2002, available from Factiva, www.factiva.com, accessed February 10, 2005.

[24] Rico Ngai, "Update 2: TCL To Buy German TV Maker for 8.2 Million Euros," *Reuters News*, September 19, 2002, available from Factiva, www.factiva.com, accessed February 10, 2005.

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[27] Gerhard Hegmann, "Anzeichen für Produktionsstopp bei Schneider," *Financial Times Deutschland* (Hamburg), September 25, 2004, available from Factiva, www.factiva.com, accessed May 3, 2005.

[28] "News in Brief," *South China Morning Post*, September 4, 2004, available from Factiva, www.factiva.com, accessed May 4, 2005.

[29] Ibid., p. 9.

[30] Lenovo announced the purchase of IBM's PC unit for $1.25 billion, split roughly evenly between cash and stock, and shouldered $500 million in IBM corporate debt. IBM retained an 18.9% stake in the company that in 2005 was reduced to 13.4% with a $350 million investment in Lenovo by a group of three private equity investment firms that each received a seat on the Lenovo Board. IBM's final consideration for the deal was therefore expected to amount to about $800 million in cash and $450 million in Lenovo shares. See "Lenovo Completes Acquisition of IBM's Personal Computer Division," *The Asian Banker*, May 15, 2005, available from Factiva, www.factiva.com, accessed May 17, 2005.

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