

today's version of yesterday's anything. We are always trying to find new material within those four ingredients: malt, hops, yeast and water that make up beer. I think that independence of thought and independence of spirit show up in the brand.

Pricing strategy played an important role in the formation of the brand. From the beginning, LBC realized that how it priced its product would make huge differences in sales and brand image. When the company first started to produce six-packs in 1998, Magee needed to select a price segment:

I had a lot of decisions to make about the new bottled brand, but the heaviest one was what we would charge for it. I looked at some market-info (IRI) reports and saw that the average selling price of most every six-pack brand in the top twenty was \$5.99 and some even less. This seemed really, really cheap, but it was the world around us. They all had frontline six-pack prices of \$6.99, but they all did every other month promotional prices of \$4.99, and so the average fell in the middle.

I wanted to make sure that at every opportunity I would aim Lagunitas at participating in the market with only the best brands. That didn't just mean other craft brewers (although we all fished in the same pond) but also it meant imports. I needed to price similarly and participate in the market similarly. These were huge breweries, but I wanted them to be my peers. We weren't sophisticated enough to do effective promotional pricing yet but I felt that if we wanted to play with the big boys, I'd have to ante-up. So, we set our everyday price at \$5.99 for a six-pack.

ECONOMIC DEVELOPMENT ISSUES

LBC had always had problems in regard to wastewater. Excessive wastewater was a major reason for moving brewery operations often during the early days. The city of Petaluma explored whether additional industrial wastewater treatment capacity was needed. This wastewater issue directly affected Lagunitas. If LBC continued to grow, its wastewater requirements would proportionately increase.

High levels of organic matter in the brewing process caused problems for municipal treatment systems. Breweries commonly pretreated their wastewater to meet municipal standards of biological

oxygen demand (BOD) and total suspended solids (TSS). Even though LBC pretreated its wastewater, it still incurred thousands of dollars in fines from the city of Petaluma. The company also had costs associated with the excess wastewater that it couldn't release into the sewers. By 2013, LBC was paying \$250,000 every month to truck its wastewater 60 miles away into a neighboring municipal district. LBC purchased a nearby plot of land, two lots south of the brewery in Petaluma, to build its own wastewater treatment plant. Petaluma had, to date, shown a willingness to work with Lagunitas when it came to permits and fees.

FUTURE CHALLENGES

With 2,400 craft breweries and another 1,500 in various stages of development and completion in mid-2013, the U.S. craft beer market appeared to be in the midst of explosive growth in production. The galloping horse that was LBC had been at the forefront of the growth in capacity. But LBC had also evolved beyond the craft origins, with a clear focus on national distribution and an increasing orientation toward taking on the "big boys." The Petaluma brewery was in a good location from a West Coast distribution standpoint, and the Chicago brewery would be in an excellent location for East Coast distribution. Chicago, one of the major distribution centers in the United States, would allow LBC to harness the city's distribution network to get products out to consumers more efficiently.

Lagunitas expected continued growth for the immediate future, but Magee was all too conscious of the cyclical nature in the craft industry. He admitted that he feared the next "unknowable step." The fast-paced nature and increased competition in the craft industry segment of the beer industry seemed to all but guarantee difficult times ahead. But looking at LBC's history, the company was in a good position to weather anything. The Chicago expansion was a key step to being able to break out of the craft beer label and compete on the larger national—and perhaps eventually global—stage. Magee and Lindenbusch expressed hope that the personality of LBC would not get lost in the process.

CASE 08

Cooper Tire & Rubber Company in 2014: Competing in a Highly Competitive Market for Replacement Tires

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COMPANY HISTORY

In 2014, Cooper Tire & Rubber Company, a U.S.-based independent tire manufacturer, was ranked as the 11th-largest tire producer worldwide and as North America's 4th-largest tire producer. However, its capacity of 97,000 consumer tires a day was still 20 percent below what it had been four years earlier, before the closing of its Albany, Georgia, plant. With a mix equally divided between proprietary house brand and private label, Cooper Tire & Rubber marketed its tires in more than 100 countries around the world.

Cooper Tire & Rubber was one of only a few companies to achieve both consistent high growth and strong returns for more than a decade. With the exception of 2005, 2006, and 2008, Cooper Tire had earned a profit in every year since its inception—a remarkable accomplishment in a mature business where it was common for industry members to post losses when demand for tires sagged. Cooper Tire had paid dividends every year since 1980, when the company first began paying dividends. However, in 2014 the company found itself competing in an industry characterized by increasingly fierce competition. In addition, the company was still attempting to recover from a failed merger in late-2013 and reverse its recent sharp decline in revenues and earnings. It was imperative that the company's management evaluate the appropriateness of its strategic direction and operating approaches in 2014.

Cooper Tire & Rubber Company began its journey from obscurity to a tire industry leader nearly a century ago, in 1914, when brothers-in-law John F. Schaefer and Claude E. Hart purchased M and M Manufacturing Company, an Akron, Ohio, producer of tire patches, tire cement, and tire repair kits. The following year, they purchased the Giant Tire & Rubber Company of Akron, a tire rebuilding business, and two years later they moved the business to Findlay, Ohio. By 1920, they had broadened the scope of the firm, repositioning it as a tire manufacturer. At that time, the firm had more than 130 domestic competitors, 40 in the state of Ohio alone. In 1930, Giant Tire & Rubber merged with the Falls Rubber Company and Cooper Corporation to form the Master Tire & Rubber Company. Within a year, the combined production of the plants totaled 2,850 tires per day.

The firm changed its name to Cooper Tire & Rubber Company in 1946 and, in 1960, became a publicly held corporation and was listed on the New York Stock Exchange. Throughout the next five decades, the company expanded its products, manufacturing plants, distribution system, and marketplace.

The 1980s were years of significant change for Cooper Tire & Rubber and the tire industry overall.

Many American tire manufacturers scrambled to lower production capacity as the domestic market became saturated. From 1979 to 1987, a total of 23 U.S. tire plants were closed in the rush to downsize. Cooper Tire & Rubber executives calmly delineated strategies for continued growth and even expansion of production. As its competitors deserted plants, Cooper Tire bought them and upgraded them. By overhauling older facilities, Cooper Tire added capacity for one-third the cost of building new ones. Research and development (R&D) at Cooper Tire was enhanced by several capital investments during the 1980s. Distribution was also improved during the 1980s, with centers opening or expanding in Moraine, Ohio; Atlanta, Georgia; and Tacoma, Washington. Cooper Tire's warehousing capacity totaled 3.2 million tires by 1985. By the end of the 1980s, distribution centers at Findlay and Moraine were granted foreign trade subzone status from the U.S. Department of Commerce. The designation diminished and suspended Cooper Tire's payment of duty on imported raw materials. Cooper Tire & Rubber joined the ranks of Fortune 500 companies in 1983 as one of the largest industrial companies in the United States. In the following year, its net sales exceeded \$500 million, and its net income was more than \$24 million. In 1985, Cooper Tire made its first foreign acquisition in Mexico. In the same year, Cooper Tire & Rubber was named one of the 100 best-performing companies in America.

Capital investments continued to grow in the 1990s: The company purchased a 1.8-million-square-foot tire manufacturing plant in Albany, Georgia, in 1990, and expanded its Findlay and Bowling Green locations in 1993. Despite a lingering U.S. recession, Cooper Tire's net sales topped the \$1 billion mark in 1991, and the company added almost a quarter of a billion dollars more the following year. Construction of a new plant at Mt. Sterling, Kentucky, got under way in 1995, and a \$10.5 million upgrade of the Clarksdale, Mississippi, facility began in 1994. Cooper Tire acquired British-based Avon Tyres in early 1997, which manufactured products for the replacement-tire industry in the United Kingdom and western Europe. The company also had a strategic alliance with Pirelli Tyres of Milan, Italy, which involved contractual arrangements. This alliance provided revenue to Cooper Tire primarily through commissions on sales of Pirelli tires by Cooper Tire dealers. By 1999,

Cooper Tire had 50 manufacturing facilities in nine countries. Much of the company's growth came through the acquisition of the Standard Products Company, a move that added 10,000 employees to its payroll.

Cooper Tire's capital investments, ongoing cost-cutting efforts, and focus on the replacement market almost doubled its operating margin from the late 1980s to the early 1990s. In fact, the company's efficient means of production propelled it to the highest gross profit margins in the industry, at 33 percent. When larger competitors turned to the replacement market and tried to undercut Cooper Tire's prices, those high margins gave the company leeway to join in the price wars.

Cooper Tire acquired Avon Tyres in 1997 and Mickey Thompson Performance Tires & Wheels in 2003. The company also entered into a joint venture with Kenda Rubber Industrial Company Ltd. for construction of a plant outside Shanghai, China, to produce radial passenger and light-truck tires in 2003. Cooper Tire sold its automotive business, Cooper Tire & Rubber-Standard Automotive in 2004 for approximately \$1.165 billion. Cooper Tire & Rubber-Standard Automotive, which was a global manufacturer of fluid-handling systems, body-sealing systems, and active and passive vibration control systems, primarily for automotive original-equipment manufacturers.

In 2005, Cooper formed a new commercial division encompassing both the Oliver Rubber Company and commercial tires. Also in 2005, the company announced an agreement to obtain 51 percent ownership in China's third-largest tire manufacturer. The company also entered into a joint venture with Resilient Technologies. In 2008, Cooper Tire acquired an approximate 38 percent ownership share of a Mexican tire manufacturing plant that was the second-largest plant in Mexico. In 2011, Cooper Tire acquired an additional 21 percent ownership in its Mexican plant, leading to a 58 percent ownership. In January 2012, Cooper Tire acquired the assets of an existing tire plant in Krusevac, Serbia, to supply tires to the European and Russian markets. By 2014, Cooper Tire & Rubber had over 65 manufacturing, sales, and design facilities located in 11 countries.

The company's current CEO, Roy Armes, had spearheaded the positive transformation since 2005, creating a stronger, more resilient, and more

sustainable Cooper Tire & Rubber and better positioned the company to drive long-term value. Nearly all of the financial and performance goals in Armes's ambitious strategic agenda had been achieved by 2012. In fact, 2012 was a record-setting year for Cooper Tire, as the company generated record full-year net sales of \$4.2 billion and a record operating profit of \$379 million. Cooper Tire's business stalled in 2013 and was still in the recovery stage in 2014. Exhibit 1 presents a financial and operating summary for Cooper Tire & Rubber for 2009–2013.

COOPER TIRE & RUBBER COMPANY'S STRATEGIC PLAN

Starting in 2008, Cooper Tire embarked on a strategic growth plan to drive the company in creating shareholder value. The vision of Cooper Tire was "together, around the world. One company . . . one team . . . one goal: creating superior value, for our customers, employees, partners and shareholders."¹

EXHIBIT 1 Summary of Cooper Tire & Rubber Company's Financial and Operating Performance, 2009–2013 (dollar amounts in millions, except per share data)

	2013	2012	2011	2010	2009
Net sales	\$3,439.2	\$4,200.8	\$3,907.8	\$3,342.7	\$2,778.9
Cost of products sold	2,923.0	3,546.6	3,562.8	2,940.3	2,359.9
Gross profit	516.2	654.2	345.0	402.4	419.0
Selling, general & administrative	275.5	257.3	181.7	193.4	207.0
Impairment of goodwill	—	—	—	—	—
Restructuring	—	—	—	20.6	48.7
Operating profit before taxes	240.7	396.9	163.3	188.4	156.3
Interest expense	(27.9)	(29.5)	(36.2)	(36.6)	(47.2)
Interest income	0.8	2.6	3.2	5.2	5.2
Other income—expense	(0.6)	(1.5)	3.8	2.8	1.3
Income (loss) before income taxes	213.0	368.4	134.1	159.8	115.5
Provision (benefit) for income taxes	79.4	(116.0)	135.5	(20.1)	(0.2)
Income (loss) from continued operations	133.6	252.5	269.6	139.7	115.3
Noncontrolling shareholders' interests	(22.6)	(32.1)	(16.1)	(23.4)	(31.9)
Income (loss) from operations attributable to Cooper Tire & Rubber stockholders	\$ 111.0	\$ 220.4	\$ 253.5	\$ 116.3	\$ 83.4
Net earnings (loss) per share:					
Basic	\$ 1.75	\$ 3.52	\$ 4.08	\$ 1.90	\$ 1.57
Diluted	\$ 1.73	\$ 3.49	\$ 4.02	\$ 1.86	\$ 1.54
Dividends declared per share	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42
Percentage of net earnings to net sales	3.2%	5.3%	6.5%	4.2%	1.9%
Return on average stockholders' equity	9.6%	24.3%	36.3%	26.8%	11.2%
Capital expenditures	\$ 180.4	\$ 187.3	\$ 155.4	\$ 119.7	\$ 79.3
Depreciation & amortization	134.8	128.9	122.9	123.7	123.5
Cash, cash equivalents	397.7	351.8	233.7	413.4	427.0
Current assets	1,454.8	1,449.7	1,264.0	1,340.2	1,131.8

(Continued)

EXHIBIT 1 (Continued)

	2013	2012	2011	2010	2009
Current liabilities	564.6	655.1	651.0	694.2	636.3
Working capital	890.2	794.6	613.0	646.0	495.5
Current ratio	2.58	2.21	1.94	1.93	1.78
Net property, plant, and equipment	974.3	929.3	899.0	824.7	839.4
Total assets	2,738.1	2,801.2	2,510.0	2,305.5	2,100.3
Long-term liabilities	320.9	336.1	329.5	320.7	331.0
Total liabilities	1,581.3	1,892.7	1,812.0	1,782.4	1,636.2
Stockholders' equity	1,156.8	908.4	697.9	523.1	464.1
Average common shares (000s)	63,327	62,561	62,150	61,299	59,439
Employees	13,280	13,550	12,890	12,898	12,568

Source: Cooper Tire & Rubber Company 10-K report, 2013.

The key imperatives of the strategic plan involved developing a competitive cost structure and improving profitability, driving top-line profitable growth, and building organizational capabilities.

After development of the plan, Cooper Tire encountered floods, earthquakes, hurricanes, and the meltdown of the credit markets and oil prices, which started in 2008 around \$75 per barrel, spiked mid-year at nearly \$150 per barrel, and ended the year at around \$45 per barrel. Cooper Tire also entered into what some had termed a global recession. Demand for replacement tires declined for the second of three years, an extremely unusual pattern for the industry. All of these factors impacted Cooper Tire & Rubber's 2008 results.

While implementing elements of the strategic plan in 2008, the company's existing operations were able to lower production costs, excluding the impacts of shutdowns due to soft demand. In the past, to address the top line, Cooper Tire had launched new premium products that positioned the company very well for growth in that segment of the market. In fact, over 30 percent of the company's sales in 2008 were from products launched in the previous two years. The Cooper Tire & Rubber brand continued with a strong performance. This effort delivered results over the year with the successful implementation of channel strategies at the national, regional, wholesale, and independent retail levels. Cooper Tire also continued investing in facilities in lower-cost countries. This positioned the company for improved operating costs, greater geographic flexibility, and the ability to penetrate markets outside

the United States. To enhance its capabilities, the company continued to shift the culture at Cooper Tire to a continuous-improvement mindset. To that end, the company trained black and green belts as part of its Lean Six Sigma efforts, as well as made internal changes in the organization's structure to support quick and sustainable improvements to its operations. The company also aggressively pursued business that would position its products in market channels where it was underrepresented. Cooper Tire had cash and untapped credit lines available for capital spending. The company continued to tightly monitor spending and capital expenditures during 2008 and suspended the repurchase of shares and debt. Raw-material costs were extremely volatile in 2008.

In 2009, Cooper Tire & Rubber had a strong focus on the first of its strategic imperatives. In North America, the company closed its Albany, Georgia, plant and successfully moved products from the plant to its remaining two plants, making the transition virtually invisible to its customers and, at the same time, improving efficiency and reducing waste. Its international operations were aggressively attacking costs while continuously improving quality. From a supply standpoint, Cooper Tire was faced with continually adjusting its production to weakening levels of demand across the industry. Raw-material costs declined in the first half of 2009 from their peak in 2008 but rapidly escalated again in the second half of the year. Across the organization, Cooper Tire did an excellent job of managing its costs against difficult headwinds. These challenges did not detract from

its unwavering focus on safety and quality. Cooper Tire also had substantial resources and energy directed at top-line growth initiatives in 2009. The company developed and introduced successful new products, including an entry-level tire and a more fuel-efficient tire to meet market demands, driven by the economic downturn, in both product segments. In Asia and Europe, Cooper Tire launched products that were extremely popular in those markets. In the second half of 2009, Cooper Tire & Rubber began to see the results of these efforts, and its performance compared to the market improved noticeably. From an organizational capability perspective, Cooper Tire & Rubber concentrated on talent development and continued implementation of Lean Six Sigma and automation projects.

Among the company's highlights of 2010, Cooper Tire & Rubber completed the move to a 24/7 operation in Texarkana, Arkansas, and increased production at six of the seven tire manufacturing locations. The company also boosted its ownership stake in Cooper Tire & Rubber Chengshan Tire (CCT) to 65 percent from 51 percent and increased ownership in Corporación de Occidente SA de CV to 58 percent from 38 percent and of Cooper Tire & Rubber Company de Mexico SA de CV to approximately 100 percent from 50 percent. The company's Cooper Tire Lean Six Sigma (CTLSS) program, in its second year, continued to bring forward successful results as employees around the world embraced and used Six Sigma methodology to improve the company's overall business. The company's new product launches during the year were extremely well received by its customers.

In 2011, Cooper Tire & Rubber made long-term investments in money and resources, including ownership levels at Cooper Tire & Rubber Kunshan Tire Corporation de Occidente and Cooper Tire & Rubber Company de Mexico, as well as agreeing to purchase assets in Serbia. These investments complemented ongoing investments at the company's legacy facilities, targeted to enhance competitiveness. Meanwhile, the company successfully rolled out a rebranding initiative of the Cooper Tire & Rubber brand that better connected consumers to the great qualities and values the company offered.

Cooper Tire continued to reinvest in its business throughout 2013, with capital investments that were higher than historical norms but necessary to maintain growth momentum. These investments included

initiatives such as its ERP deployment, which would ultimately provide a seamless flow of information on a global basis in real time, greatly enhancing the efficiency of its operations. Cooper Tire also invested in the continued ramp-up of its tire manufacturing facility in Serbia, which the company purchased in January 2012. This facility ended the year with production of 1 million tires and was a factor, along with operations in China, in the 12 percent year-over-year sales growth that the company's international segment achieved in 2012. In North America, the company maintained vigilance in driving cost reductions and invested in automation, equipment, and other enhancements while achieving a 4 percent sales increase. The increase was led by strong performance in premium passenger, light-truck and truck-bus radial tires.

COOPER TIRE & RUBBER IN 2014

In 2014, Cooper Tire & Rubber, with its subsidiaries, was the 4th-largest tire manufacturer in North America and the 11th-largest tire company in the world based on sales. Cooper Tire focused on the manufacture and sale of passenger and light- and medium-truck replacement tires. As of December 2013, Cooper Tire operated 9 manufacturing facilities and 38 distribution centers in 11 countries and employed 13,280 persons worldwide. The company was organized into two separate business divisions: North American Tire Operations and International Tire Operations. Each division was managed separately.

North American Tire Operations Division

The North American Tire Operations division manufactured and marketed passenger-car and light-truck tires, primarily for sale in the U.S. replacement-tire market. As of 2014, Cooper Tire operated three manufacturing facilities in the United States and one in Mexico—see Exhibit 2. This Cooper Tire division operated in a highly competitive market, which included Bridgestone, Goodyear, and Michelin. These competitors were substantially larger than Cooper Tire and served the original-equipment manufacturer (OEM) market as well as the replacement-tire market. Cooper Tire's North American division also faced competition from low-cost producers in Asia, Mexico, South America, and central Europe.

EXHIBIT 2 Plant Capacity of North American Tire Manufacturers, 2014
 (in thousands of units per day)

Company and Plant Location	Number of Plants	Capacity per Day				Total
		Passenger Car	Light Truck	Truck	Other	
Bridgestone Americas Inc.	10	79.3	24.3	15.2	4.91	123.71
Carlisle Tire & Wheels Co., USA	2	0.0	0.0	0.0	41.0	41.0
Continental Tire, the Americas	2	31.9	3.6	6.0	0.0	41.5
Cooper Tire & Rubber Co., USA	3	73.0	24.0	0.0	0.0	97.0
Goodyear Tire & Rubber Co.	8	131.0	26.0	18.8	19.3	195.1
GTY (General/Yokohama), USA	1	0.0	0.0	3.9	0.0	3.9
Michelin North America Inc.	14	163.5	33.0	7.0	5.11	208.61
Mitas Tires North America Inc.	1	0.0	0.0	0.0	0.5	0.5
Pirelli Tire North America Inc.	2	4.0	1.7	0.0	0.0	5.7
Specialty Tires of America Inc.	2	0.0	0.4	0.0	6.2	6.6
Titan Tire Corp., USA	3	0.0	0.0	0.0	19.68	19.68
Toyo Tire North America, USA	1	7.8	7.8	0.0	0.0	15.6
Yokohama Tire Corp., USA	1	25.7	1.1	0.0	0.0	26.8
Grupo Carson/Euzkadi (Continental AG), Mexico	1	15.0	5.0	0.0	0.0	20.0
JK Tyre & Industries, Mexico	3	10.0	5.0	2.0	1.04	18.04
Corporación de Occidente SA de CV (Cooper Tire & Rubber), Mexico	1	10.0	7.2	2.8	0.0	20.0
U.S. Totals	40	442.1	105.1	50.9	79.7	677.8
Canadian Totals	6	46.3	11.2	0.0	17.0	74.5
Mexican Totals	9	62.8	22.8	4.8	1.04	91.44
Total	55	551.2	139.1	55.7	97.74	843.74
2014 vs. 2013	+5	+0.4%	+0.9%	+1.1%	-0.1%	+0.5%

Source: *Modern Tire Dealer*, 48th Annual Facts issue.

Some of these producers were foreign affiliates of the division's competitors in North America. The division also participated in the U.S. medium-truck replacement market. In addition to manufacturing tires in the United States, the division had a joint venture manufacturing operation in Mexico. Only a small portion of the products manufactured by the division were exported throughout the world. Exhibit 3 presents market shares for the leading sellers of replacement tires in the United States in 2013.

Success in competing for the sale of replacement tires was dependent upon many factors, the most important of which were price, quality, performance, line coverage, availability through appropriate distribution channels, and relationship

with dealers. Other factors included warranty, credit terms, and other value-added programs. The North American division had built close working relationships with independent dealers. Cooper Tire management believed those relationships had enabled the company to obtain a competitive advantage in that channel of the market. As a steadily increasing percentage of replacement tires were sold by large regional and national tire retailers, the division has increased its penetration of those distribution channels while maintaining a focus on its traditionally strong network of independent dealers.

International Tire Operations Division

The International Tire Operations division had two manufacturing operations in the United Kingdom,

EXHIBIT 3 Market Shares of the Leading Brands of U.S. Replacement Tires, 2013

Passenger-Car Tires (based on 201.6 million units)		Light-Truck Tires (based on 28.3 million units)	
Goodyear	13.0%	Goodyear	12.0%
Michelin	8.5	BF Goodrich	9.0
Bridgestone	8.0	Bridgestone	8.0
Firestone	7.5	Michelin	7.0
Cooper Tire & Rubber	5.5	Firestone	6.5
BF Goodrich	4.5	Cooper Tire & Rubber	6.0

Source: *Modern Tire Dealer*, 48th Annual Facts issue.

one in the Republic of Serbia, and two in China. The U.K. entity manufactured and marketed passenger-car, light-truck, motorcycle, and racing tires and tire retread material for the global market. The Republic of Serbia entity manufactured light-vehicle tires for the European markets. The division's entity in China manufactured only light-vehicle tires. Under an agreement with the government of China, all of the tires produced at the facility were exported. The division also had a joint venture in China, Cooper Tire & Rubber Chengshan Tire, which manufactured and marketed radial bias medium-truck tires as well as passenger-car and light-truck tires for the global market.

As with the North American division, the International division operated in a highly competitive industry, which included Bridgestone, Goodyear, and Michelin. The division also faced competition from low-cost producers in certain markets.

Quality Control

Cooper Tire & Rubber's quality control policies and procedures were managed by specific staff, but a great deal of the responsibility for quality rested with the individual workers, who were trained to do their own quality-assurance checks. Cooper Tire's employee-centered organization resulted in high product quality. Employees received as many as 900 hours of training, and signs bearing such slogans as "Quantity is Important, but Quality is MORE Important" hung from factory walls. To symbolize a personal commitment to quality, each tire carried not only a brand name but also a sticker identifying the worker who made it. It was believed that this helped foster pride in workmanship among Cooper

Tire's workers and created a bond with the consumers buying the tires.

Market Positioning

One factor in Cooper Tire & Rubber's success was that it confined itself to the replacement-tire market. Although Cooper Tire was a midget among the world's tire makers, it was the only major U.S. tire producer that refused to compete for low-profit-margin OEM sales to automakers. Instead, it concentrated on the replacement-tire market, which was about four times larger than the OEM market and was growing faster because the owners of highly durable cars were keeping them longer. Although the major competitors controlled more than 50 percent of the replacement market, Cooper Tire & Rubber made about 5.6 percent of the 230 million replacement tires sold in North America in 2013 (see Exhibit 3).

Distribution and Marketing

Cooper Tire had a broad customer base in North America, including purchasers of private-label tires (which were manufactured by Cooper Tire but marketed and distributed by its customers) and purchasers of house-brand tires (which were marketed and distributed by Cooper Tire).

The company attracted private-label customers and earned retailer loyalty by pledging not to open its own sales outlets—a strategy that also allowed Cooper Tire to avoid the headaches of the retail market. Rather than selling through its own retail chains, as Goodyear and Bridgestone/Firestone did, Cooper Tire continued to sell about half of its production as private labels to store chains, mass merchants,

and discounters. Private brands included Sears, TBC, Hercules, Pep Boys, American Car Care Centers, ProComp Tires, and Tires Les Schwab. Over recent years, price pressure on private-label tires had increased as the price differential between major brands and private labels had been squeezed. But Cooper Tire management believed that private-label tires still played a very important role in the replacement-tire market. Private-label tires were an excellent value and provided the distributors and dealers with the ability to call their marketing shots and maintain product control in their local markets. It was believed that the strong private brands with distributors and dealers that provided good service would continue to prosper. In 1997 and 1998, Cooper Tire & Rubber was honored by private-brand customer Sears and received the Sears Partners in Progress award out of more than 10,000 vendors vying for this recognition.

The other half of the company's output was primarily sold under its Mastercraft, Starfire, Dick Cepek, Chengshan, Dean, Avon, and Roadmaster brands through independent tire dealers and wholesale distributors. Independent dealers and distributors remained crucial to the company's success. They accounted for an estimated 67 percent of replacement-tire sales since they were the main suppliers to car dealer franchises, muffler shops, and service stations. According to the Retail Tire Customer Survey, "The independent dealers helped customers choose a brand of tires to buy 79 percent of the time. The customers were more likely to stay with the recommended replacement tire brand suggested by the dealer for the first set of tires than for subsequent sets."² In 2007 and 2008, Cooper Tire received high marks from independent dealers. Cooper Tire & Rubber and Mastercraft house brands were ranked at the top of a national survey of tire dealers conducted by *Tire Review*, with dealers ranking Mastercraft first and Cooper Tire & Rubber second.

Cooper Tire focused its relatively modest marketing budget on supporting its independent dealers, mainly by providing superior service and delivery and by offering a value-priced product. Cooper Tire advertising programs assisted dealers and distributors with promotional materials in their local markets. Co-op advertising allowances were based on annual dealer purchases and were applicable to all types of media. The Cooper Tire's house brands were growing a little faster than its private-label business.

To broaden brand awareness among customers, at the beginning of 1997, Cooper Tire signed Arnold Palmer as company spokesman and stepped up its advertising media expenditures. It was believed that these moves were beginning to pay off, with all the house brands showing healthy sales increases. Dealers loved Cooper Tire & Rubber because unlike Goodyear, it did not have company retail stores to compete against the dealers and it provided them with the highest gross profit margins in the industry—33 percent versus an average of 28 percent for competing brands.

Product shipments to customers were directed through a strategic, nationwide network of distribution centers, which ensured timely deliveries to customers. A new management information system was introduced to further streamline inventory and order-processing operations and to provide even better service to customers.

Over the years, Cooper Tire & Rubber had expanded exports of its products. The company's new acquisition of British-based Avon Tyres had added \$169 million to annual sales, increasing Cooper Tire's international sales exposure from its 8 percent preacquisition level and providing a strong base for future global expansion.

Research and Development

The company also saved on R&D. Cooper Tire generally directed its research activities toward product development, improvements in quality, and operating efficiency. While other tire makers incurred high R&D expenses to capture a share of the original-equipment tire market segment, Cooper Tire was able to produce tires with a proven track record and sell them to value-oriented customers. Instead of pioneering its own designs, the company waited to see what sold well as original equipment, and then it produced its own versions. Original tires on new cars normally lasted up to four years; therefore, the company was able to reduce speculative R&D expenditures and had ample time to produce its own versions.

Cooper Tire & Rubber did not just copy others' designs, however; it had very active R&D departments in both tires and its engineered rubber products divisions. There was very good communication between the R&D departments and other organizational units. Engineers in R&D were cross-trained in manufacturing procedures and spent a lot of time

on the floor so that they would not be working in isolation.

Computer technology was used in product design and development, machine design, and mold design. The major tire companies were spending freely, 2.5 to 3 percent of revenues, on R&D. They were using computers to test tire durability, traction, fuel efficiency, compatibility with new car designs, and even noise. Analysts considered Goodyear the research leader. A decade earlier, designing a tire for a new automobile model required testing 200 to 300 tires. In 2011, doing so took about 65 tires. In the last few years, tire designing moved from an empirical art to a science, mainly because of advancements in computer technology. Goodyear spent \$369 million on R&D in 2011, or 3.5 percent of revenues, up from 2.5 percent five years earlier.

Research and development expenditures at Cooper Tire & Rubber amounted to approximately \$35.7 million in 2009, \$39.7 million in 2010, and \$44.6 million in 2011. The amount spent in 2011 on R&D represented 1.1 percent of its revenues. Cooper Tire's innovative application of advanced computer technology provided the company with a competitive advantage in bringing new, high-quality products to market quickly. Data collection devices on a wide range of equipment throughout the production process provided accurate information on the components being made. Comparing the component data with product orders from customers ensured that the proper tires were scheduled for production.

Other main tire companies were also using research to cut costs for original equipment, the tires that automakers buy for new cars. Although original-equipment sales accounted for just a quarter of production, nearly 70 percent of consumers replaced their tires with the brand that came with the car. Since auto companies wanted a distinctive tire design for each new model, tire makers were striving to develop lines more quickly. At Goodyear, computer-aided design helped cut development time from 117 weeks in 1980 to 65 weeks in 1995, and the goal was to reduce the time to less than 20 weeks by 2011.

Choosing Plant Locations

Moving into low-cost regions was one of Cooper Tire & Rubber's winning strategies, and the company intended to continue utilizing this strategy in the future for further growth. Having its plants in

small-town locations was another factor in Cooper Tire's superior performance. The company wasted no money on frills, not even on utilization of its headquarters in the small town of Findlay, Ohio. Getting attention wasn't Cooper Tire's style. When the company wanted to add capacity, it did so cheaply by buying old plants and retrofitting them. This was made possible by the fact that more than 35 tire plants had been shut down since the 1970s. Cooper Tire & Rubber had a good engineering department, which not only designed and built the company's own production equipment but also adapted and modified other equipment to meet its own needs and specifications. The engineering team also continually monitored advances in new technology for possible incorporation into Cooper Tire's manufacturing processes. At its plant in Texarkana, Arkansas, changes in materials flow and production scheduling meant that inventory got turned 10 times a year instead of 3 to 5 times.

Cooper Tire & Rubber's tire plants were in places like Tupelo, Mississippi, and Texarkana, Arkansas, where the company was a master employer. In these small towns, Cooper Tire employees at all levels and their families constantly interacted in community churches and organizations. This developed the feeling that everyone had a stake in the future of the company. Some analysts believed that Cooper Tire's small-town locations permitted it to pay lower salaries and to reap other savings over companies in urban locations. Most Cooper Tire employees grew up in and around the rural areas where the company's tire plants were located. Employees drawn from these smaller communities tended to make a longer-term commitment to the firm and to exhibit a stronger work ethic than did employees from larger and more mobile communities.

Cooper Tire & Rubber ran its plants at 100 percent capacity, while other companies operated at about 80 percent. In a capital-intensive industry, running at full capacity created lots of leverage for Cooper Tire. Its Tupelo, Mississippi, factory ran 24 hours a day, seven days a week.

Raw-Material Strategy

Over 200 raw materials were used in manufacturing tires. The primary raw materials used for tire production were synthetic rubber, carbon black, natural rubber, rubber chemicals, steel wire, steel cord,

polyester, and adhesives. Petroleum and natural gas were important for production of some of these materials, such as rubber and carbon black. Crude oil accounted for the largest raw-material cost; about 10 gallons of crude oil was consumed when manufacturing an average-sized passenger-car radial tire. Large economies of scale were very helpful in the industry, as the tire buyers were price-sensitive. A historical cost-of-goods-sold (COGS) percentage composition breakdown for Cooper Tire & Rubber can be found in Exhibit 4.

In 1993, Cooper Tire opened a purchasing office in Singapore to acquire natural rubber and various materials directly from producers in the Far East. This purchasing operation enabled the company to work directly with producers to improve the consistency of quality and to reduce the costs of materials, delivery, and transactions. Cooper Tire's inventory control policies and procedures were believed to be highly efficient—buying ahead on occasion to get the best deals but not hedging on raw materials.

The industry did not experience any significant raw-material shortages over the past years. In fact, all of the raw materials were commodities, available in bulk from a variety of sources on world markets.

EXHIBIT 4 Historical Percentage Composition Breakdown of Cooper Tire & Rubber Company's Cost of Goods Sold

Input	Percent of COGS
Labor	20–30
Other	15–30
Raw materials	50–55
Raw Material	Percent of Raw Materials
Natural rubber	20–25
Synthetic rubbers	25–30
Carbon black	10–15
Reinforcing fabrics	10–15
Steel	10–15
Other raw materials	10–15

Source: [www.docstoc.com/docs/79573233/Cooper Tire & Rubber-Tire-amp-Rubber-Company-Strategic-Plan-and-Vision](http://www.docstoc.com/docs/79573233/Cooper_Tire_Rubber-Tire-amp-Rubber-Company-Strategic-Plan-and-Vision).

Raw-material prices in 2012 demonstrated volatility: Prices started the year at an elevated level and declined steadily through the end of the year, with the full-year average index down 7 percent compared to 2011. Like all companies within the tire industry, Cooper Tire & Rubber benefited from lower raw-material prices in 2012. However, on a longer-term basis, it expected prices to generally increase as the global economy gained momentum.

In 2012, there was a worldwide crunch for natural rubber (NR), and the rapidly rising NR prices were a major concern for all tire manufacturers. The worldwide shortage of NR was arising mainly because of production cuts in Malaysia (where plantations were shifting more toward palm oil), the growing usage of NR in radial tires, and an increasing demand in China. In the future, the usage of more synthetic rubber and the partial replacement of NR by synthetic polyisoprene were expected to increase. Even though natural rubber was traded above \$2 per kilogram, it was still the first choice for radial truck tire manufacturers because of its excellent physical and mechanical properties, and its better adhesion to steel cord. The increasing price of crude oil had built up the pressure on the tire and automobile industries to develop low-rolling-resistance tires with better traction.

Several tire manufacturers had integrated backward into rubber manufacturing and tire fabric supply. However, there was no evidence that these manufacturers had gained a meaningful cost advantage or had a better ability to differentiate their products on the basis of quality.

Volatility in raw-material pricing was a factor in Cooper Tire & Rubber's pursuit of alternative material sources that required innovative technology. In 2012, Cooper Tire, along with partner organizations, received a \$6.9 million grant from the U.S. Department of Agriculture to evaluate the U.S.-grown guayule plant as an alternative source of natural rubber.

COOPER TIRE & RUBBER'S EFFORTS TO EXECUTE ITS STRATEGY

Much of the credit for Cooper Tire & Rubber's success, said Alec Reinhardt, the company's chief

financial officer, should go to its workforce for being motivated in a way that fitted nicely with management's unending search for new ways to hold down costs. The company made great strides in developing a participative, cooperative, less hierarchical work climate. Cooper Tire management had long recognized that the performance of dedicated employees could make a difference in an industry where competitors sell products that differ very little from one another. Employees became involved at all levels of the organization, especially in the areas of productivity, quality assurance, and customer service. Monthly meetings were held in each department to update workers on new developments and to solicit their suggestions and information about problems.

Cooper Tire's employee recruiting process was operated by examining applicants through a series of screening procedures. The applicants who passed the initial screening were motivated people—team players and good communicators—with the right attitude and personality to fit the job for which they had applied. Then they took two pencil-and-paper tests, one of which was keyed to a video tape, followed by a one-on-one behavioral-type interview with a supervisor. Those who made it through the preliminary screening were placed in groups, working on problem solving in situations involving some stress.

All new Cooper Tire employees received a basic, two-week training and orientation course. Each new employee's spouse was also asked to come in to learn what it meant to work for Cooper Tire & Rubber and why the company considered an employee's spouse to be part of the team. Training courses were designed to meet the specific needs of each employee. After the basic course, an employee's training could continue for a period of three days to over a year. Management scheduled working hours and shifts in ways that allowed employees ample days off for participating in community activities, thereby developing a family atmosphere at the plants.

Cooper Tire's innovative incentive system was a driving force for employees. The compensation system—in which the earnings of everyone, from the CEO to line workers, rose and fell with the individual's performance and contribution to productivity—instilled loyalty. Executive compensation was tied to performance benchmarks and provided for

cuts, as well as raises, of up to 30 percent. Profit-sharing opportunities and paid incentives also augmented the paychecks of the company's blue-collar and clerical workers. Hourly workers were paid extra for producing more, and salaried employees could earn bonuses of up to 7.5 percent based on the return on assets they worked with. In fact, although incentive programs were offered to every employee, none of them were based on market share.

Employee turnover was discouraged by Cooper Tire's stock option plan. The company had a very low (3.1 percent) turnover rate, and absenteeism was at one-tenth of 1 percent. For staff and management alike, a long tenure with the company was the norm. Some analysts pointed to Cooper Tire's tight fiscal controls, its high productivity, and its low-cost manufacturing efficiencies as the key ingredients of its strategy. But Gorr insisted that the heart of Cooper Tire's success wasn't anything more complicated than a lot of hard work, an obsession with quality, and a devotion to the dealers.

All of the company's managers were substantial stockholders, as were many workers. Reinhardt estimated that employees held 20 percent of Cooper Tire's stock. The company's stock purchase program had been profitable for many employees. The stock rose an astonishing 6,800 percent during the 1980s, richly rewarding long-time employees who had invested in the company.

COMPETITION IN THE GLOBAL AUTOMOTIVE TIRE INDUSTRY

Tire manufacturing became an important industry in the first half of the 20th century as motor vehicles became the dominant mode of transportation. While the tire industry was certainly mature in developed countries, having been around for more than 160 years, it was a vastly different business in 2013 than it had been even five years earlier. The challenges were many, but so were the opportunities. In the United States, production of passenger-vehicle and light-truck tires had undergone significant change over the last two decades. What was once considered a major U.S. manufacturing sector was

now part of a global industry that was largely controlled by foreign-headquartered corporations.

Rubber chemistry had become much more complex since the day, 152 years ago, when Charles Goodyear invented strong, vulcanized rubber by accidentally dropping sulfur and crude rubber onto his stove. Tire company chemists were now stirring up exotic synthetic rubbers to improve traction on wet streets without sacrificing fuel efficiency. Steel belts—actually steel and polyester woven into a tough fabric—were being improved as well, beginning 20 years ago. The average radial tire lasted 50,000 miles; the average bias tire lasted 18,000 to 20,000 miles. James A. Thiese, director of passenger and light-truck tire development for Firestone, credited the work of the chemists: “That’s what now allows a tire to perform with the same efficiency in 20 degree-below-zero weather as it does in 95-degree heat.”³

A decade ago, a dozen major tire manufacturers, half of them American, competed for world leadership. In 2013, just four giant global tire companies were dominant, accounting for about 50 percent of worldwide tire sales, and they included only one U.S.-headquartered company: Goodyear Tire and Rubber Company. Consolidation had come about because of slackening demand and global competition. Goodyear, the leader for decades, was contending for fourth place. In the previous six years, foreign companies had bought out most of the best-known American labels, including Firestone and Armstrong. The recent agreement by Groupe Michelin of France to buy Uniroyal Goodrich Tire Company would create the world’s largest tire maker—if, as expected, American antitrust regulators approve. In the United States, aside from Goodyear, only the smaller Cooper Tire & Rubber Company has remained independent. Exhibit 5 shows the world’s largest sellers of new tires in 2012 and 2013.

Confronted with sharp declines in output, employment, and the number of plants in the consumer tire sector, numerous members of Congress expressed concerns about the future of tire manufacturing in the United States. Congress appeared to have few policy levers with which to support tire manufacturing in the United States. To the extent that government policy encouraged domestic production of small vehicles, most of which were imported, there might have been additional demand for U.S.-made OEM tires. More stringent

federal standards for tires also might have encouraged domestic production, albeit at the cost of higher prices for consumers. In response to a petition filed by the United Steel Workers with the U.S. International Trade Commission, the Obama administration imposed punitive tariffs on Chinese tires for three years, starting in September 2009. A World Trade Organization (WTO) panel determined in December 2010 that the U.S. tariff measures were in compliance with the nation’s WTO obligations. The higher tariffs caused an increase in imports of low-cost tires from countries other than China, notably Thailand and Mexico, but did not lead manufacturers to shift production back to the United States.

Companies within the tire manufacturing industry often chose certain distribution channels. For example, Bridgestone and Goodyear sold tires to their own retail stores, which sold them directly to end users, but Cooper Tire & Rubber did not

EXHIBIT 5 Leading Sellers of New Tires, by Worldwide Revenue, 2012–2013 (in billions of U.S. dollars)

Company	Country	2013	2012
Bridgestone Corp.	Japan	\$31.2	\$32.0
Groupe Michelin	France	26.8	27.4
Goodyear Tire & Rubber Co.	United States	18.9	20.2
Continental AG	Germany	13.0	12.4
Pirelli & Cie SpA	Italy	8.0	7.7
Sumitomo Rubber Industries Ltd.	Japan	6.9	7.7
Hankook Tire Co.	South Korea	6.6	6.3
Yokohama Rubber Corp.	Japan	4.9	5.6
Cheng Shin Rubber Ind. Co. Ltd.	Taiwan	4.5	4.4
Kumho Tire Co. Ltd.	South Korea	3.4	3.6
Cooper Tire & Rubber Co.	United States	3.2	4.2
Toyo Tire & Rubber Co. Ltd.	Japan	3.0	3.6

Source: *Modern Tire Dealer*, 48th Annual Facts issue.

have its own company-owned retail stores. Cooper Tire also did not sell tires to OEMs. The account managers had to make wise decisions and choose their distribution channel carefully. Service stations typically stocked one or two manufacturers’ brand tires and sometimes a private-label brand. Retail tire outlets owned and franchised by the tire manufacturers carried only the manufacturer’s name brands and perhaps a private-label made by the manufacturer. Department stores and the major retail chains usually marketed their own private-label brands, but occasionally also carried manufacturers’ label tires.

The global automotive tire market was highly consolidated and consisted of passenger-car tires, heavy-truck tires, and other segments. North America dominated this market with about 30 percent of the global total in 2012. Europe emerged as the highest potential market, followed by the Asia-Pacific (APAC) region and North America. Competition in the global automotive tire industry was high. A combination of factors such as vehicle sales, government regulations, and environmental factors impacted market dynamics significantly.

Year 2012 was a record year for the global production and shipment of light-vehicle tires, with worldwide production reaching 1,460 million tires in 2012 (see Exhibit 6). Over the years, tire supply and demand was tight globally and particularly in North America. Tire manufacturers had increasingly moved production of replacement tires from the United States to Asia, especially China, as imports undercut sales of domestically produced tires. Chinese production capacity far exceeded Chinese domestic demand for tires, and China had pursued an

aggressive export agenda. The Asia-Pacific region was by far the largest production region for light-vehicle tires, accounting for more than half of the global light-vehicle tire production in 2012. Sales of motor vehicle tires in China were the second highest in the world, behind only sales in the United States. The massive Chinese light-vehicle tire market, which accounted for more than 12 percent of global light-vehicle tire demand in 2012, was on course to record the strongest gains, compared to that market in any country, through 2015. Global light-vehicle tire demand was forecast to rise 3.3 percent per year through 2015. The tire markets in North America and western Europe were expected to continue to see advances below the global average.

Although tire manufacturing was relatively capital-intensive, there was significant labor content—labor costs ran from about 15 to 40 percent of total costs, depending on wage rates and labor productivity. Industry observers were predicting increased worldwide sourcing of tires from countries having the lowest labor costs, with Korea, Mexico, and Brazil becoming increasingly attractive production locations. Several major tire manufacturers were considering plant locations in low-wage countries.

According to Lucintel, a leading market research firm, the global automotive tire industry held opportunities for industry players due to the strong expected demand for replacement tires and increasing sales of passenger and commercial vehicles in developing countries. The Asia-Pacific region was expected to attain the highest growth in rubber demand during the 2012–2017 forecast period, reflecting strength in China, India, Thailand, and Vietnam. The global

EXHIBIT 6 Global Light-Vehicle Tire Production, 2007–2012 (in millions of tires)

Year	North America	South America	Europe	Asia	Other	Global
2007	215	63	380	580	57	1,295
2008	200	66	335	624	65	1,290
2009	180	58	320	580	47	1,185
2010	200	64	340	735	48	1,387
2011	200	65	345	770	49	1,429
2012	200	65	345	800	50	1,460

Source: ModernTireDealer.com.

automobile tire industry market was forecast to reach an estimated \$187 billion in 2017, with a compound annual growth rate (CAGR) of 4 percent over the forecast five years. The passenger-car segment was forecast to see the strongest growth during the forecast period. Lucintel's research also indicated that although volatile raw-material prices and higher dependency of suppliers on the OEMs were market challenges, the increasing per capita income in developing nations, population growth, new infrastructure projects, urbanization, increase in middle-class population, and green movement were all expected to drive growth in the industry.

The tire industry consisted of two distinct markets: (1) the original-equipment (OE) market, and (2) the replacement market. Both markets included passenger-car tires; light-, medium-, and heavy-truck tires; and farm-vehicle tires.

Original-Equipment Market Auto manufacturers bought all of their tires directly from tire manufacturers. No auto producers had integrated backward into tire manufacturing as they had done into other component vehicle parts. Competition among the tire manufacturers to supply tires to the auto manufacturers was fierce. Since tires were such a small-cost item in the overall price of new vehicles, changes in OE tire prices had virtually no effect on total OE tire demand. The demand for OE tires was directly related to the number of vehicles produced, and it was highly elastic in regard to the ease with which motor vehicle manufacturers could switch to other tire manufacturers' brands. However, the vast majority of OE tires used on American-made vehicles were made in the United States in order to reduce car makers' supply chain risks and to protect the tire manufacturers' proprietary production processes. All the major tire manufacturers were eager to have new vehicles equipped with their own brands in order to enhance replacement-tire sales. In fact, increasing automation was allowing tire manufacturers to meet OE demand with fewer plants and fewer workers. The sale of OE tires was thus seen as strategically important, not only as a way to strengthen sales in the more profitable replacement segment but also to achieve economies of scale in manufacturing.

Vehicle manufacturers set detailed tire specifications for each of their vehicle models, and tire producers had to meet those specifications if their

tires were to be considered original equipment. It was more typical for automobile and truck manufacturers to establish quality standards for the OE tires they purchased than for replacement tires. The automobile companies bought tires in large quantities, and since the number of buyers was low, they could usually negotiate low prices. Using this leverage over the years, the automakers had managed to negotiate an average price for an OE tire that was several dollars below what wholesale distributors paid tire manufacturers for a replacement tire of similar quality. In effect, the auto companies bought OE tires for roughly half the retail price commanded by replacement tires. As a result, the original-equipment market had become a low-margin one relative to the replacement-tire market.

Replacement-Tire Market The larger portion of the consumer tire market involved replacement tires that were sold to consumers through various retail channels. The postwar era was one of expansion for the tire industry as a result of several converging growth factors. More disposable income enabled more Americans to own cars. Americans experienced the expansion of the interstate highway system and the postwar trend toward suburbanization. This meant more wear and tear on tires and increasing demand for replacement tires. Furthermore, the rail system was being replaced rapidly by buses, taxis, and trucks for local and long-distance transportation.

The demand for replacement tires depended on factors such as per capita disposable income, the average age of a car, the durability of the tire tread, the number of cars in circulation, the average number of miles driven, and gasoline prices. Any reduction in new-car sales was considered good news in the replacement market because it meant that drivers were hanging on to their cars longer. Even in a strong economy, used-car sales rose along with those of new cars, and motorists also spent more time on the road, further increasing the demand for replacement tires. The per capita income was low during the recession, thus tire sales suffered especially in 2008 and 2009. Consumers were cutting back on spending by holding back on tire replacement, and the OEMs halted production lines. Since 2010, unit shipments of replacement tires have been flat every year. Exhibit 7 presents shipment volume trends in the United States by segment for 2009 through 2013.

EXHIBIT 7 U.S. Tire Shipments, 2009-2013 (in millions of tires)

Tire Type	2009	2010	2011	2012	2013
Passenger:					
Replacement	184.0	198.7	195.5	192.0	201.6
OE	25.0	34.6	36.0	40.5	44.0
Light truck:					
Replacement	26.0	28.5	28.6	28.3	28.3
OE	2.6	3.5	4.1	4.2	4.4
Medium truck/bus:					
Replacement	12.7	15.3	17.0	16.0	15.7
OE	2.1	3.3	4.9	5.3	5.0

Source: Modern Tire Dealer, 48th Annual Facts issue.

The total vehicle miles were also a useful indicator in determining replacement-tire demand, because high usage of tires would have resulted in the increase of replacement-tire sales. Due to the recession in 2008-2009, budget-conscious consumers had increased, and these consumers wanted tires that could increase the gasoline efficiency of their vehicles. This demand caused tire manufacturers to invest in technologies to produce tires such as those with low-roll resistance.

Consumers were also holding on to their vehicles longer. According to R.I. Polk & Co., the average age of light-duty vehicles on the road stood at a record 10.8 years, compared to 11.1 years for passenger cars and 10.4 years for light trucks. "The increasing age of the vehicle fleet, together with the increasing length of ownership, offers significant business growth opportunity for the automotive aftermarket," says Mark Seng, Polk's global aftermarket-practice leader.⁴

Replacement tires were marketed to vehicle owners through a variety of retail channels, including independent tire dealers, service stations, manufacturer-owned retail stores, major department stores with auto centers, retail chains, automobile dealerships, and warehouse clubs. Independent tire dealers usually carried the brands of several different major manufacturers as well as a discount-priced private-label brand, providing replacement buyers with a full assortment of brands with varying tread designs,

EXHIBIT 8 U.S. Consumer Tire Retail Market Share, by Distribution Channel, 2011-2013

Distribution Channel	2011	2012	2013
Independent tire dealers	61.0%	60.5%	60.5%
Mass merchandisers	14.0	14.0	14.0
Warehouse clubs	8.5	8.5	8.5
Tire company-owned stores	7.5	7.5	7.5
Auto dealerships	2.5	7.0	7.5
Miscellaneous outlets	2.5	2.5	2.0

Source: Modern Tire Dealer, 48th Annual Facts issue.

widths, durability, quality, and price attributes. Over the years, independent tire dealers handled about 61 percent of the replacement-tire market—see Exhibit 8.

Surveys showed that dealers were able to influence a car owner's choice of replacement tires. Studies also showed that most replacement-tire buyers did not have strong tire-brand preferences, making it easy for tire salespeople to switch customers to the tire brands and grades with the highest dealer margins. Dealers normally pushed their private-label tires because their profit margins on them were higher than the margins on the name-brand tires of major manufacturers. Independent tire dealers frequently ran price promotion ads in the local newspapers, making it easy for price-sensitive buyers to watch for sales and buy at off-list prices.

Technology—Recent Advances and Future Trends Advances in tire materials, tire constructions, and tire technologies had led to new products and the development of new market segments. Tire manufacturing technology had progressed in parallel with tire construction technology so that tires were designed not only to meet specific performance targets but also to enable improved manufacturability (i.e., more efficient, lower-cost, and more uniform production).

With all-around development, the expectations of tire customers had also grown. Increasing automobile manufacturers' requirements and ever-growing

customer expectations resulted in the evolution of new product technology. Such technology continued to develop to accommodate new applications, safety, health, and environmental issues. Customers were more demanding and were looking for better mileage (tread wear), lower heat buildup, better ride and handling (dry and wet traction), and environmentally friendly features (e.g., low-rolling resistance, reduced noise, more durability, and less pollution). Keeping customers' expectations in mind, major tire manufacturers introduced several innovative products. Super single tires, run-flat technology, active wheel systems, the tweel tire, solid tires, and multi-air-chamber tires were among the major recent pathbreaking achievements of the tire industry.

Over a few decades, tire manufacturing technology had undergone a series of changes, and the tire had become a high-technology product. New expressways and highways increased demands for low-cost tires with more speed capability, high mileage, and energy-efficiency. New tire technology faced demands arising out of changes in modern vehicles with faster speeds, safety regulations, mechanization in agriculture and construction work, continuous crude oil price increases, and aggressive competition.

Reduction in tire development time and improvement in quality continued to be advanced by the use of computers. The possibility existed that, in the future, different vehicles would require different tires, fine-tuned to the specific features of each vehicle and its suspensions. The development of a tire able to run some distance after air loss continued to be pursued to eliminate the requirement for a spare tire.

Recapped or Retreaded Tire The retread tire was made by retaining the tire's casing and removing its old (worn) tread professionally, by machine buffering, and replacing it with a new tread. The new tread was put on the casing through a process of pressure and heat and was mold-cured. This added better grip, improved reliability, and top-grade tire performance at a reasonable price. New tires were built in layers. The tread layer was the portion of the tire that had the most contact with the road. Retread tires were not used tires but, rather, refurbished tires with newly added grip and improved performance in all road conditions. In the past, retread tires had

been widely used by some vehicle users. Retread-tire buyers were very price-conscious. In 2014, the retread-tire segment was very small and declining partly because buyers could purchase a new, more reliable set of tires for about \$100 more than the cost of retreads.

COOPER TIRE & RUBBER'S COMPETITIVE STANDING IN THE TIRE INDUSTRY

Cooper Tire & Rubber had always operated under a "price umbrella" created by the original-equipment tire manufacturers, so as that umbrella rose higher, so did Cooper Tire's profitability. However, the industry was becoming extremely competitive as major tire makers realized the attractiveness of the replacement-tire market. Cooper Tire would not have the luxury of watching how that market performed for two or three years before deciding whether to copy it. Furthermore, competitors had recently narrowed the gap between themselves and low-cost-producer Cooper Tire, with the closer rivalry apt to cause the company's margins to rise more slowly than in past years. Recently, more tire manufacturers provided longer-mileage warranties to the buyers of replacement tires. The longer warranty of 60,000 to 80,000 miles was likely to create intermediate-term demand problems. This would likely signal the beginning of heightened price competition.

The future of Cooper Tire & Rubber was expected to include periods of continuing and new challenges, with increased threats of competition in the replacement-tire market and major changes in the new products of the big-three tire companies. Cooper Tire believed that significant numbers of Chinese tires would be imported immediately following the expiration of the special U.S. tariff on such tires. However, it was expected that the company would continue doing business as it had over the past few years or, in the worst-case scenario, would manage to grow earnings and margins at a slightly lower rate. For 2014, Cooper Tire anticipated growth equal to or higher than the industry norm in key markets, allowing it to recover unit volumes lost in 2013.

Cooper Tire & Rubber operated in a highly competitive industry, which included a number of competitors larger than Cooper Tire. At the lower end of the replacement-tire market, there was additional

competition from low-cost tire producers located in Asia and South America. Tire imports into the United States, especially from China, were growing each year but had slowed with the introduction of a 35 percent tariff. After the tariff implementation, the imports started to decrease significantly—see Exhibit 9. The tariff also had an effect on U.S.-based companies that operated in China. However, Cooper Tire benefited from the tariff even though it had operations in China. The company had gains in revenue despite the tariff because it was able to fight the price war by maintaining its prices. Overall, China still ranked number one as the country with the most tire imports in the United States in 2014.

Cooper Tire & Rubber competed in the markets for a wide variety of passenger-car, light- and medium-truck, motorsport, and motorcycle tires. Cooper Tire executives considered all these markets to be highly competitive and populated with both domestic and many foreign firms. Competition in the replacement-tire market centered mainly on price and price terms, quality, reputation, availability, warranty terms, credit terms, consumer convenience, and overall customer service. A combination of factors, such as vehicle sales, government regulations, and environmental concerns, also impacted market dynamics significantly.

Over the years, the recession and the uncertainty about job security had forced many consumers to become more price-conscious and less brand-loyal. Furthermore, with the demand for cars having declined over the years, the market for OE tires had shrunk, making competition fiercer in the

replacement-tire market. Thus, many tire producers dumped entire inventories into the replacement-tire market, lowering prices and making profit margins even leaner. Many of the vehicles on the road were old—the average age of the U.S. vehicle fleet was over eight years. While such cars and trucks were maintained, the owners often did not want to spend a lot of money on them because there was a new car in the future. This mentality, fostered by the prevailing economic climate, played right into the hands of the low-cost tire producers. Overall, tire quality and performance were on the upswing. The longer tread life of OE and replacement tires threatened to radically reduce the number of sets of replacement tires needed per vehicle in service.

Yet it looked as though 2012 was a year of distinction for Cooper Tire & Rubber, which demonstrated that it could meet or beat the competition across a wide range of industry and global conditions. For Cooper Tire, driving growth within an industry and a global economy in which customers were looking for new ways to get an edge, new competitors from around the world continued to enter the market, the speed of technology demanded constant innovation, and upcoming government regulations and requirements could be game changers, 2012 was a proving ground. That proving ground not only tested Cooper Tire but also allowed the company to demonstrate that it was capable of mastering the toughest challenges and delivering strong value to its stakeholders. Delivering innovative, high-quality products was key to Cooper Tire's success and central to its value proposition. During 2012, the company continued to see strong consumer demand for tires such as its Zeon RS3-A and Discoverer A/T3, both of which continued to take hold in the marketplace and earned significant third-party endorsements. In fact, the RS3-A was the tire selected by Ford Motor Company as original equipment on its 2013 Ford Focus Titanium and SE models. This was Cooper Tire & Rubber's first U.S. passenger-car OE tire.

A SUDDEN ANNOUNCEMENT OF MERGER

On June 12, 2013, it was announced that Apollo Tyres Ltd., an Indian tire company, had signed an agreement to acquire Cooper Tire & Rubber under

EXHIBIT 9 U.S. Consumer Tire Imports from China, 2009–2013

Year	Units (millions)	Year-to-Year Change
2009	43.0	–7.5%
2010	31.0	–27.9
2011	26.0	–16.1
2012	32.5	+25.0
2013	51.2	+57.5

Source: U.S. Government data in *Modern Tire Dealer*, 48th Annual Facts issue.

a wholly owned subsidiary of Apollo via an all-cash transaction, valued at approximately US\$2.5 billion, for \$35 a share. Before the news was out, Cooper Tire's stock price was \$24.56 a share; at the end of the day, it was \$34.66. John Healy, an industry analyst for Northcoast Research in Cleveland, Ohio, and coauthor of *Modern Tire Dealer's* monthly "Your Marketplace" column, said that Apollo wanted a stronger presence in the U.S. tire industry and knew this would be difficult to achieve on its own. Healy believed that a merger with Cooper Tire & Rubber would give Apollo a jump start for growth in this market with a valuable partner. He further stated that even with the merger, the company would be the world's seventh-largest tire company and the merger would not change the dynamics of the industry very much.

The price of \$35 a share that Apollo agreed to pay seemed doomed from the start, and it immediately struck some analysts and investors as too high. Cooper Tire's margins were viewed as already being near their peaks, and competition in the United States was likely to pick up because of increased competition from Chinese manufacturers. "It was a relatively full price being paid for Apollo to gain some North American exposure," said Bret D. Jordan, an analyst with BB&T Capital Markets. "They were paying at peak margin prices."⁵ Apollo shares declined 39 percent on news of the deal, even as Indian executives pledged to press on. Analysts had concluded that Apollo was borrowing too much to finance the deal and that Cooper Tire & Rubber was too big. Apollo was the minnow swallowing the whale.

Yet despite the full price being paid to Cooper Tire, problems at the company immediately arose. The United Steelworkers union filed grievances with Cooper Tire & Rubber, contending that the union was contractually allowed to approve any change in ownership and using that as an opportunity to try to renegotiate its contract. Apollo said that it would negotiate a new collective bargaining agreement but argued that this meant it should be able to pay a lower price for Cooper Tire & Rubber. Cooper Tire said that Apollo knew about the steelworkers' contract and that no price adjustment was warranted.

The issues with the steelworkers, however, were small compared with the problems Cooper Tire suddenly faced with its joint venture in China. Cooper Tire & Rubber Chengshan Tire, the joint venture, was originally 51 percent owned by Cooper Tire &

Rubber, which teamed up with a local businessman. In 2010, Chengshan's Chinese partner sold Cooper Tire a significant portion of his stake for just \$18 million, a figure that might have been much higher based on the size of Apollo's offer. But after the deal with Apollo was originally announced in June 2013, the Chinese factory, which had accounted for about a quarter of Cooper Tire's 2012 sales, stopped producing Cooper Tire-branded tires, and management revoked Cooper Tire's access to the factory's financial records. This cut into Cooper Tire's revenue and made it impossible for the company to provide Apollo with the updated financial information it needed to secure financing for the deal. Cooper Tire's joint venture partner suggested that the opposition was the result of concerns about Indian management of Chinese workers. In an advertisement it placed in *The Wall Street Journal*, the partner said, "Who can guarantee the success of integration between Chinese culture and Indian culture?" But Chengshan's opposition ultimately appeared to be less about Indian ownership than about compensation. Locking Cooper Tire out of the factory was seen by many as a ploy to extract a higher price, and when Cooper Tire failed to force arbitration of the dispute into courts in Hong Kong, the partner was able to keep the case mired in local courts. The partner demanded as much as \$400 million to be bought out of his minority stake, Cooper Tire executives later said in court.

The problems with the union and in China led Apollo to delay the closing of the deal, saying Cooper Tire had agreed to lower its asking price. In October 2013, Cooper Tire dragged Apollo to a Delaware court, trying to force it to complete the deal under the agreed conditions, while the Indian company sought a discount on the purchase price of up to \$9 a share, citing labor problems and other issues at Cooper Tire's U.S. and China units. In December 2013, the Delaware court ruled in favor of Apollo, saying the Indian company had not breached its obligations.

Cooper Tire & Rubber terminated the agreement on December 30, 2013, and said that it made the decision after Apollo's lenders refused to extend their financing commitments beyond December 31, 2013. Apollo blamed Cooper Tire for not submitting a complete picture of the working of its joint venture in China, which Apollo claimed was a key obstacle in its efforts to raise the \$1.87 billion in debt that was

needed for the deal. Apollo had planned to borrow the money from Morgan Stanley, Deutsche Bank AG, Goldman Sachs Group, and Standard Chartered Bank Ltd. Then, on December 30, 2013, Cooper Tire management announced that it would pursue a breakup fee, plus possible damages, from the same Delaware judge who in December 2013 declined to force Apollo to close on the original transaction. According to the contract, if the deal did not stretch beyond December 31, 2013, Apollo would be liable to pay \$112.5 million to Cooper Tire for breach of contract, while Cooper Tire would have to pay a \$50 million breakup penalty if it chose to withdraw from the deal.

The turmoil left Cooper Tire unable to file financial reports for the calendar third and fourth quarters of 2013 until the middle of March 2014. Cooper Tire was one of only a few companies to achieve both consistent high growth and strong returns for more than a decade. The company posted net income of \$92 million on net sales of \$1,746 million for the six months ended June 30, 2013. That compared to net income of \$74 million on net sales of \$2,043 million for the same period in 2012. Its operating profit rose 16 percent, from \$143 million to a six months' record of \$166 million. But Cooper Tire reported measurably lower operating and net income for the second six months and year 2013, largely due to the costs

associated with the failed merger with Apollo and the negative effects of markedly lower sales.

For fiscal 2013, Cooper Tire's operating income fell 39.4 percent to \$240.7 million, while net income was cut nearly in half, to \$111 million. Sales were off 18.1 percent, down to \$3.44 billion. According to management, fourth-quarter profits were impacted by \$27 million in unusual items related to the negative effects of labor actions taken at the Cooper Tire & Rubber Chengshan Tire Company joint venture. This figure included \$25 million from lower volumes and \$2 million of manufacturing inefficiencies in the international business segment. The results also included \$9 million of costs stemming from the terminated merger agreement with Apollo. In addition, management indicated that an unfavorable price and product mix reduced profits by \$68 million, offset in part by \$31 million of lower raw-material costs.

While Apollo was back where it started when the merger was announced in June 2013, Cooper Tire & Rubber still had to work to undo the damage caused by the aborted deal. "Cooper Tire & Rubber had made the point that the world is a tough place for a small tire manufacturer," Mr. Jordan said. "Now they're going it alone. I don't see any obvious second strategic buyer out there."⁶

ENDNOTES

¹ Cooper Tire & Rubber, [Cooper Tire & Rubber.com/About-Us/Our-Company.aspx](http://CooperTire.com/About-Us/Our-Company.aspx).

² Holzing, "A Successful Competition?" *Nation's Business*, April 1993.

³ news.google.com/newspapers?nid=1876&date=19900211&id=obltAAAIAJ&sjid=Z84EAAAIAJ&pg=3250,3483320.

⁴ www.moderntiredealer.com/files/stats/stats/s013-facts-section-pdf.

⁵ dealbook.nytimes.com/2013/12/30/Cooper-Tire-Rubber-tire-abandons-merger/?_php=true&type=blogs&r=0.

⁶ Ibid.