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MAZDA MOTOR corporation: SURVIVING BY PARTNERING WITH THE GIANTS[[1]](#endnote-1)

Wiboon Kittilaksanawong, Tae Kyung Lee, and Andrew Jiro Poplawski wrote this case solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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We have to embark on the partnership by devoting the best personnel and resources. Because we are a small-scale company, we are able to focus on clearly identifying our brand. That has established a solid base for our survival.

Masamichi Kogai, chief executive officer (CEO), Mazda Motor Corporation[[2]](#endnote-2)

Backed by its “Driving Matters” and “Zoom-Zoom” taglines, Mazda Motor Corporation (Mazda) emphasized the company’s core belief in the joy of driving as it continued to compete with larger automobile companies in the consolidated global automotive industry.[[3]](#endnote-3) Although the company lagged behind larger firms that actively implemented consolidation strategies to lower unit production costs, strengthen innovation and customer responsiveness, and increase foreign market shares, Mazda still aimed “to remain the brand that [was] continually chosen by customers.”[[4]](#endnote-4) Since 1979, it had partnered with Ford Motor Company (Ford), helping Ford in small-car engineering and lean manufacturing, in exchange for finance and marketing know-how. However, in 2010, this 30-year alliance was terminated due to the influence of the global financial crisis.

In 2015, after years of struggling independently, Mazda entered into a long-term partnership with Toyota Motor Corporation (Toyota) to share technologies and cope with cost pressures. In its 2016 Structural Reform Plan, Mazda aimed to achieve a global sales volume of 1.65 million units, an operating income ratio of at least 7 per cent, an equity ratio of at least 45 per cent, and a dividend payout ratio of at least 20 per cent by 2019.[[5]](#endnote-5) Given the highly competitive domestic and global automotive markets, to what extent could the partnership with Toyota and the Structural Reform Plan allow Mazda to achieve these goals? Would Mazda need to make any changes to its competitive strategies to survive and to keep the company sustainably moving forward?

FROM CORKS TO CARS: MAZDA’S BEGINNINGS

In 1921, Jujiro Matsuda, a successful businessman, took over Toyo Cork Kogyo Co., Ltd. (Toyo Kogyo), an artificial-cork manufacturing company headquartered in Hiroshima, Japan.[[6]](#endnote-6) As demand for cork slowed, Matsuda shifted the company toward vehicle manufacturing, releasing the auto rickshaw Mazdago in 1931.[[7]](#endnote-7) After early success, Toyo Kogyo faced its first setback from a lack of global automotive demand during World War II.[[8]](#endnote-8) Yet, as Matsuda retired and his son Tsuneji succeeded him, the company continued establishing itself as an automotive manufacturer.[[9]](#endnote-9) Although the company had used the name “Mazda” for its automobile from the beginning, it was formally renamed Mazda Motor Corporation in 1984.[[10]](#endnote-10)

With automotive demand surging following the war’s conclusion, in 1960, the company began selling the Mazda R360 Coupe, its first two-door passenger car, followed by the Mazda Carol, a four-door passenger car in 1962.[[11]](#endnote-11) Mazda also partnered with NSU Motorenwerke AG, a German automotive company that shared its rotary engine knowledge for the purpose of commercializing the engine.[[12]](#endnote-12) Despite some initial struggles, Mazda released its Cosmo Sport, the first vehicle equipped with a commercial rotary engine, in 1966.[[13]](#endnote-13) Mazda began exporting vehicles to Europe and the United States in 1967 and 1970, respectively, becoming a competitor against Japanese automotive rivals that had an established global presence.[[14]](#endnote-14)

As Japanese vehicles entered the American market, U.S. automotive companies were affected by the rising fuel costs from the energy crisis in 1970s, while Japanese automakers exploited their fuel-efficient vehicles to appeal to U.S. customers.[[15]](#endnote-15) In spite of the rising Japanese presence, U.S. automotive companies focused on high power rather than cost benefit/better fuel efficiency, resulting in a reduction in their market share (see Exhibit 1). Unlike other Japanese auto firms, Mazda experienced heavy financial turmoil during the 1970s’ oil crisis, as customers swayed from its vehicles, which had inefficient rotary engines.[[16]](#endnote-16) However, U.S. automotive company Ford believed in Mazda’s potential, bailing out the struggling company by acquiring 7 per cent of Mazda’s shares in 1979, beginning a financial relationship that would last for the next 30 years.[[17]](#endnote-17)

**THE MAZDA–FORD PARTNERSHIP**

Although both companies wanted independence, Mazda and Ford lacked financial resources, lagging behind their rivals in foreign expansion; this situation created an incentive to share technology.[[18]](#endnote-18) Rather than directly competing against each other, the two companies began developing synergy and creating change. In 1971, the [Mazda B-Series](https://en.wikipedia.org/wiki/Mazda_B-Series) developed a Ford Courier for Western markets, while Mazda’s cumulative global production reached 5 million units one year later. Using Ford’s brand, Mazda sold its Bongo and Titan trucks internationally in 1976.[[19]](#endnote-19) By 1979, Mazda’s cumulative production reached 10 million units, with both companies optimistically looking to generate new synergies in the 1980s.[[20]](#endnote-20)

Searching for further ways to reduce costs and improve efficiency, Mazda and Ford began sharing parts and platforms for vehicle manufacturing. To reduce part costs, Mazda provided Ford with small parts (e.g., manual transaxles) in 1980, while Ford began using Mazda’s Familia platform for its Laser and Escort vehicles, and the Mazda Capella platform for its Telstar and Probe models.[[21]](#endnote-21) Impressed by Mazda’s plant in Hofu, Japan, Ford adopted the Japanese company’s operational efficiencies in its own manufacturing facility in Mexico to boost production. In 1983, Mazda began experimenting with local production in international markets by manufacturing in Colombia, followed by a research and development centre in Michigan in 1986, and vehicle production at Mazda Motor Manufacturing USA Corporation in 1987. Seeing both the financial and operational benefits of the Mazda–Ford partnership, Ford confidently increased its stake in Mazda by 20 per cent throughout the 1980s.[[22]](#endnote-22)

However, as the Asian economy began to shift, Mazda’s financial struggles worsened. As a result, Ford increased its stake to a majority share of 33.4 per cent in 1996, appointing Henry Wallace as the new CEO of Mazda.[[23]](#endnote-23) As the first non-Japanese CEO in the Japanese automotive industry, Wallace brought a new vision by altering Mazda’s logo, seeking new synergies with Ford, and implementing an innovation program to quicken the development of new products. Globally, Wallace aimed to acquire control of foreign distributors, develop dealerships for sales, and identify opportunities for further efficiencies and cost reductions. Even as two leaders succeeded Wallace at the end of the 1990s, Mazda’s sales volume and profit remained healthy through the end of the decade, due to a strong global economy and consumer spending in Western markets. By 2000, Mazda’s sales volume reached 307,000 units in Japan, 255,526 units in North America, and 210,677 units in Europe (see Exhibit 2).[[24]](#endnote-24) Yet a looming economic crisis would significantly alter the automotive industry, threatening Mazda’s success.

**THE GLOBAL FINANCIAL CRISIS AND THE END OF A PARTNERSHIP**

In 2008, after 30 years of mutual growth, the Ford–Mazda partnership dissolved as a result of the global financial crisis.[[25]](#endnote-25) The crisis brought increasing prices for automotive fuels and raw materials, resulting in significant declines of automotive sales around the world.[[26]](#endnote-26) With demand falling during the recession, automotive companies were left reducing their size and selling inefficient assets. Under the direction of CEO Alan Mulally, Ford sold 20 per cent of its Mazda stake in 2008, returning control to Mazda, while Mazda also bought back an additional 6.8 per cent of its shares from Ford.[[27]](#endnote-27) As Ford gradually divested its stake in Mazda, it was left with only 3 per cent ownership by 2010.[[28]](#endnote-28) Despite Ford and Mazda’s desire to remain strategic partners through joint ventures and technology sharing, Mazda’s business began declining during the aftermath of the financial crisis, leaving Mazda’s executive team contemplating whether Mazda could survive as an independent automotive manufacturer without a successful strategic partnership.[[29]](#endnote-29)

As a result of the global financial crisis, automotive industry demand declined sharply, negatively affecting Mazda’s business activity. In fiscal year (FY) 2010/11, Mazda’s sales in Japan, North America, and Europe were 206,000, 342,000 and 212,000 units respectively, demonstrating a decline in the company’s overall sales.[[30]](#endnote-30) Additionally, the increasingly strong Japanese yen crippled Mazda’s export-oriented business model. Because it assembled most of its automotive products in Japan and then exported them, Mazda was much more sensitive to foreign exchange rates than were its rivals (most of which had global manufacturing facilities). During FY 2007/08, the U.S. dollar–yen exchange rate was US$1 = ¥114, but the rate dropped to US$1 = ¥86 in FY 2010/11. Similarly, the euro–yen exchange rate sank from €1 = ¥162 to €1 = ¥113 during the same period.[[31]](#endnote-31)

In light of these poor macroeconomic conditions and slumping sales, Mazda’s operating profit fell from ¥162 billion in FY 2007/08 to ¥23 billion by FY 2010/11. As the firm recorded four consecutive net profit losses from FY 2008/09 to FY 2011/12, its stock price also plunged (see Exhibit 3).[[32]](#endnote-32) Accordingly, following the Ford partnership, Mazda ended all production of its cars in the United States in 2013.[[33]](#endnote-33) Due to the accumulated losses and lack of financial resource for new investments, Mazda desperately sought change to revive its business.

**REPLACING THE ROTARY ENGINE: INTRODUCING SKYACTIV TECHNOLOGY**

To overcome its struggles as an independent manufacturer, Mazda altered its identity as a rotary engine manufacturer. Since the 1960s, Mazda had been famous for its rotary engine, which was unique among passenger vehicles.[[34]](#endnote-34) The rotary engine possessed an advantage over the typical piston engine because of its higher power-to-weight ratio and reduced vibration. Just one-third of the size and weight of the piston engine, Mazda’s rotary engine generated a nearly equivalent power output, proving its power at The 24 Hours of Le Mans,[[35]](#endnote-35) becoming the only champion to win without using a piston engine in 1991.[[36]](#endnote-36) However, poor fuel efficiency and excessive emissions made the engine more suitable for racing than for everyday driving.

Thus, in 2010, Mazda introduced its SKYACTIV technology, which equipped its vehicles with high fuel efficiency, outstanding crash safety, and balanced precision handling.[[37]](#endnote-37) Based on the early success of this technology, newly launched products such as the CX-5 and Mazda 6 gained traction in 2012, and Mazda’s global sales steadily rose (see Exhibit 4).[[38]](#endnote-38) Aligning with this strong sales growth and a weakening yen, Mazda’s exports also rose, and the company’s operating profit recorded a new historical high at ¥182 billion in FY 2013/14 (see Exhibit 5).[[39]](#endnote-39) As Mazda’s stock price skyrocketed, it appeared that the SKYACTIV technology had brought a resurgence to the independent business—but would Mazda be able to sustain this success against established foreign competitors in the global automotive industry?

**DOMESTIC COMPETITION: JAPAN’S AUTOMOTIVE INDUSTRY**

Despite Mazda’s revival through its SKYACTIV technology, competition remained intense in the domestic Japanese market, consisting of both domestic automotive manufacturers and foreign importers. All automotive manufacturers differed in their characteristics, varying in terms of sales volume and geographical footprint. In 2013, automotive manufacturing was one of the core industries in Japan, with an annual export value exceeding ¥51.9 trillion, accounting for 17.8 per cent of Japan’s total manufacturing shipment value.[[40]](#endnote-40) Within Japan, the automotive industry’s shipment value exceeded that of the electrical machinery and equipment industry (¥36.8 trillion), the general machinery industry (¥32 trillion), and the chemical industry (¥27.4 trillion), making it the single largest industry in Japan (see Exhibit 6).

The Japanese automotive industry was fiercely competitive, with numerous large and small automotive companies founded and headquartered in Japan (see Exhibit 7). In 2014, global Japanese giants such as Toyota, Honda, Suzuki, Daihatsu, and Nissan were successful in recording larger sales than Mazda through unique global strategies.[[41]](#endnote-41) Toyota, one of the leaders in the global automotive industry had successfully sold over 10 million cars in 2014 and 2015.[[42]](#endnote-42) Another domestic competitor, Suzuki, famous for its low-price, high-quality mini vehicle, differentiated itself through geographical positioning, targeting customers in emerging markets while rarely offering its products in Western markets.[[43]](#endnote-43) Additionally, larger automotive original equipment manufacturing (OEM) companies such as Toyota, Honda, and Nissan all owned stakes in auto part producers, making them vertically integrated in the automotive manufacturing process. Further, these parts manufacturers fed not only their affiliates but also other independent automotive OEMs (e.g., Mazda and Suzuki), allowing smaller manufacturers to produce high-quality products despite lacking economies of scale.

Japan’s automotive market was also flooded with numerous international automotive manufacturers. Companies such as Volkswagen, Mercedes-Benz, Audi, and Volvo had all penetrated the Japanese automotive industry, establishing themselves as competitors to the domestic manufacturers. From 2009 to 2013, imported vehicle sales had increased by nearly 200,000 units per year, with imported vehicle sales in Japan estimated at 346,000 in 2013 alone.[[44]](#endnote-44) Although Mazda remained competitive in its domestic market, with the rise of domestic automakers and success of international brands, Japanese manufacturers (e.g., Mazda) had to shift their focus to foreign markets for survival; however, the global automotive industry presented even greater competition and risks for automotive manufacturers.

**THE GLOBAL AUTOMOTIVE INDUSTRY**

Over the course of the 20th century, cars had spread all over the world, and the automotive industry was still evolving. Due to the competitiveness of the automotive market, no company could survive on its domestic sales alone, making the global industry crucial for success. Automakers faced challenges such as complexity and cost pressures, diverging markets, digital demands, and a shifting industry landscape. In 2015, nearly 1,000 automotive companies were manufacturing vehicles globally (see Exhibit 8). To continue achieving growth and profit in the global automotive industry, automotive brands were adjusting their business strategies, shifting investments and resources, and developing new skills to overcome recent trends in the automotive industry.

Mergers and Acquisitions (M&A)

Following the 2008 financial crisis, the global automotive industry transformed, as a result of the competitive dynamics required for companies’ survival. M&A by larger companies began occurring across the industry because smaller companies could no longer survive independently (see Exhibit 9). Major automotive companies such as Volkswagen and Fiat acquired smaller companies to increase their manufacturing capabilities and diversify their product lineups. Companies from emerging markets, such as Geely and Tata Motors, purchased struggling European brands, such as Volvo and Jaguar Land Rover, in an attempt to secure technology and brand value. Although many of its competitors became involved in M&A activity, Mazda avoided M&A since its Ford partnership, choosing to remain in control of its own operations and decision-making.

Research and Development (R&D)

Auto companies had also focused on R&D, hoping to forecast future trends and achieve first-mover status. In 2014, Volkswagen spent US$13.5 billion on R&D, followed in this respect by Toyota (US$9.1 billion), General Motors (GM) (US$7.2 billion), Daimler (US$7.0 billion), and Ford (US$6.4 billion).[[45]](#endnote-45) Historically, automotive OEMs developed new platforms only when launching new vehicles. However, to survive in the increasingly competitive landscape, companies focused their R&D spending on developing new platforms that could be utilized between models and even different automotive brands. Because platform development costs accounted for nearly half of auto companies’ product development costs, this strategy of using a common platform across different vehicle models allowed companies to save both money and time.[[46]](#endnote-46)

By 2017, more than 4 million cars from 40 different models and brands under Volkswagen were forecasted to be designed and built on a single platform called MQB (*Modularer Querbaukasten* in German, meaning “modular transversal toolkit”).[[47]](#endnote-47) Volkswagen’s Golf and Audi’s A3 shared the same platform, despite their different brands and exteriors. In 2015, Toyota’s platform strategy, the Toyota New Global Architecture, reduced 30 per cent of its development costs and time for the new-generation Prius hybrid model. Renault-Nissan’s unified platform, the Common Modular Family, aimed to reduce 30–40 per cent of new model development costs and 20–30 per cent from purchasing parts.[[48]](#endnote-48) With competitors spending billions of dollars on R&D, Mazda stated in its 2014 annual report that “In terms of research and development, we plan to invest ¥100.0 billion [US$870 million] in [FY 2014/15], compared with ¥99.4 billion of expenditures [during FY 2013/14].”[[49]](#endnote-49) Despite this commitment, Mazda risked falling further behind because its R&D investment value was significantly lower than that of its competitors.

Penetration of New Energy Vehicles

New energy vehicles (NEVs) such as hybrid, electric, and fuel-battery-equipped cars were becoming increasingly popular in the developed markets. U.S. hybrid car sales revealed that hybrid cars accounted for about 4 per cent of total vehicle sales (or more than 550,000 units) in 2015. Based on this strong success in the U.S. market, other countries were now pushing for NEV sales. China, along with many European countries, subsidized customers who purchased NEVs, and had also introduced tax-exemption programs to help make NEVs more attractive. Globally, the number of NEVs was expected to reach 20 million by 2020.[[50]](#endnote-50)

With the NEV market rapidly expanding, companies were offering a variety of vehicles types and sizes to customers. In addition to the global automotive OEMs, emerging companies such as Tesla and Chinese automotive company BYD were also releasing products to compete in the NEV market. However, Mazda continued to lag behind competitors in NEV technology. In its 2014 annual report, Mazda stated:

We anticipate that petroleum resources will still be the main energy and internal combustion engines the main drive technology in the global automobile market in 2020. . . . Our approach is to effectively reduce [carbon dioxide] emissions by providing all customers with driving pleasure and outstanding environmental and safety performance, rather than to rely heavily on a subset of environmentally friendly vehicles.[[51]](#endnote-51)

As a result, Mazda acquired NEV technology from Toyota, using Toyota’s hybrid drivetrain technology for the Mazda3 Sedan.[[52]](#endnote-52)

Strategic Automotive Alliances

As an alternative to M&A, many automotive companies had also formed strategic alliances to share knowledge and develop competitive advantages. By merging technology to make the development process more efficient, BMW and Toyota agreed to jointly develop a fuel cell system, lightweight components, and a sports car in the early 2010s.[[53]](#endnote-53) Honda and GM tried to co-develop and -produce core parts of a fuel cell system aiming to be first movers in the next-generation of eco-vehicles.[[54]](#endnote-54) BYD formed a joint venture with Daimler AG in 2010, focusing on the manufacturing of electric luxury vehicles, with sales beginning in China in 2014.[[55]](#endnote-55)

Yet Mazda’s perspective on alliances since the Ford partnership had been conservative, with management worrying that “unintended changes to or terminations of alliances and joint ventures could have an adverse effect on the Group’s business results and financial position.”[[56]](#endnote-56) The NEV technology partnership with Toyota was one of the few alliances Mazda had formed since it cut ties with Ford; however, the partnership had given Mazda hybrid drivetrain technology for its Mazda3 Sedan.[[57]](#endnote-57) With sales dropping in both its domestic market and many foreign markets, success in developing markets was increasingly important for Mazda. Unfortunately, while Japanese competitors Toyota and Nissan had sold 857,749 and 843,063 units, respectively, in China in 2013, Mazda revealed a vulnerable sales figure of just 175,000 units—a 1.5 per cent market share of the company’s biggest emerging market.[[58]](#endnote-58) If emerging markets performed better than developed markets (as they did after the financial crisis), this trend could act as a disadvantage for Mazda because the company was more focused on its developed market. Still, many automotive companies were expanding their local facilities and sales networks in emerging markets to capture this growth opportunity.

With the global automotive industry constantly evolving, sales and market shares continued shifting between the automotive companies. For companies to remain successful, they had to carefully balance key strategic decisions about the future. Accordingly, Mazda relied on its SKYACTIV technology and Structural Reform Plan to compete in the global automotive industry.

**SHIFTING GEARS: STRUCTURAL REFORM AND THE TOYOTA PARTNERHSHIP**

With its competitors threatening the company’s long-term survival, Mazda released its Structural Reform Plan in 2012 in an effort to increase its competitiveness in the global automotive environment. The plan provided four initiatives for the company’s future: increase business innovation via SKYACTIV technology; accelerate further cost improvement through Monotsukuri Innovation;[[59]](#endnote-59) reinforce business in emerging markets and establish a global production footprint; and promote global alliances.[[60]](#endnote-60) Appointed as the president and CEO of Mazda on June 25, 2013, Masamichi Kogai was tasked with ensuring the future success of these four initiatives.[[61]](#endnote-61)

In Mazda’s 2014 annual report, Kogai praised the plan’s early success by revising the company’s 2016 goals, while executive vice-president Akira Marumoto stated that “for FY 2013/14, we have revised our global sales volume to 1.52 million units, and raised our operating income from ¥150.0 billion to ¥230.0 billion. Our foreign exchange assumptions are ¥100/US$ and ¥135/euro. We are aiming for an operating income margin of 7 per cent or more.”[[62]](#endnote-62) Marumoto believed that these significant revisions were a combination of the automotive industry’s economic environment, as well as the company’s recent strong performance through “curtailed sales incentives and a shift to a right-price sales policy from the introduction of SKYACTIV-equipped models and further cost improvements through Monotsukuri Innovation.”[[63]](#endnote-63)

Despite Mazda’s strong financial returns since the introduction of the Structural Reform Plan, the company had sacrificed economies of scale since the end of its Ford partnership, increasing its domestic operational costs. With the weakening yen aligning with the Structural Reform Plan, Mazda risked compromising its profits if the yen were to strengthen, leaving stakeholders questioning the wisdom of Mazda’s strategy for its long-term survival as an independent manufacturer (i.e., relying solely on its Structural Reform Plan for success).

On May 13, 2015, Mazda addressed these concerns by announcing a long-term strategic partnership with Toyota, building on a relationship that had been formed a few years earlier when Toyota had provided its drivetrain technologies to Mazda.[[64]](#endnote-64) Toyota president Akio Toyoda discussed the decision to partner with Mazda:

As evidenced by its SKYACTIV technologies and KODO Soul of Motion design, Mazda has proven that it always thinks of what is coming next for vehicles and technology, while still managing to stay true to its basic car making roots. . . . In this way, Mazda very much practices what Toyota holds dear: making ever-better cars. I am delighted that our two companies can share the same vision and work together to make cars better.[[65]](#endnote-65)

Mazda’s Kogai described the partnership in similarly positive terms:

Toyota is a company that has shown steadfast resolve in acting responsibly on global environmental issues and the future of manufacturing as a whole. I also have tremendous respect for Toyota’s dedication in its pursuit of ever-better cars through ongoing innovation. . . . I hope that by working together to make cars better, we can raise the value of cars in the eyes of consumers while also enhancing the manufacturing capabilities of our home, Hiroshima, and all the communities we are involved in as well.[[66]](#endnote-66)

In this new partnership, both companies agreed to collaborate on future products and share technology developments to stay ahead in the competitive environment. Toyota sought to gain knowledge of Mazda’s SKYACTIV petrol and diesel expertise, while Mazda hoped to benefit from Toyota’s hybrid proficiency and hydrogen fuel cell technology.

**THE ROAD AHEAD**

Industry trends had changed rapidly after the global financial crisis, and competitors had altered their business strategies, while Mazda fought to keep pace. In 2016, Mazda announced a new medium-term business plan, “Structural Reform Stage 2,” which covered the period from March 2017 to March 2019. Kogai believed it would be vital for Mazda to achieve sustainable growth, and to establish a solid financial base with enhanced resilience to foreign exchange fluctuation.

As Mazda entered 2017 with revised business goals and strategies, other automotive manufacturers continued distancing themselves from Mazda by forming strategic alliances, concentrating R&D spending on modular platforms and new energy research, and an increasing focus on economies of scale. Nevertheless, Mazda’s Structural Reform Plan and the partnership with Toyota had brought increased growth. But, would Mazda require a further revised strategy to remain relevant in the highly consolidated automotive industry? Regarding the Mazda–Toyota partnership, Toyoda had been careful to note, “This is an engagement announcement, not a marriage announcement.”[[67]](#endnote-67) With its size and success, was Toyota the best fit for Mazda, or was there a more suitable partner? Could Mazda use any lessons learned from its past partnership with Ford to become more successful in its partnership with Toyota? Was partnership (of any kind) the correct growth strategy for the firm?

**EXHIBIT 1: MARKET SHARES (%) OF MAJOR AUTO COMPANIES (1961–1980)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Company** | | | | | |
| **Year** | **Ford** | **GM** | **Honda** | **Toyota** | **Chrysler** | **Other** |
| **1961** | 29.3 | 45.0 | — | — | 10.4 | 15.2 |
| **1962** | 26.8 | 50.7 | — | — | 9.6 | 12.9 |
| **1963** | 25.8 | 49.7 | — | — | 12.1 | 12.4 |
| **1964** | 26.6 | 48.1 | — | — | 13.3 | 12.0 |
| **1965** | 26.8 | 49.6 | — | 0.1 | 14.3 | 9.2 |
| **1966** | 27.4 | 47.5 | — | 0.2 | 14.7 | 10.2 |
| **1967** | 23.9 | 48.9 | — | 0.4 | 15.2 | 11.6 |
| **1968** | 26.0 | 46.0 | — | 0.6 | 15.2 | 12.2 |
| **1969** | 26.3 | 45.8 | — | 1.1 | 14.1 | 12.7 |
| **1970** | 28.3 | 38.9 | 0.0 | 2.0 | 14.9 | 15.9 |
| **1971** | 25.5 | 44.3 | 0.1 | 2.5 | 13.1 | 14.5 |
| **1972** | 26.8 | 42.9 | 0.2 | 2.3 | 13.9 | 13.9 |
| **1973** | 26.4 | 43.6 | 0.3 | 2.3 | 13.5 | 13.9 |
| **1974** | 27.4 | 41.2 | 0.4 | 2.3 | 14.2 | 14.5 |
| **1975** | 25.4 | 43.1 | 0.9 | 3.0 | 12.9 | 14.7 |
| **1976** | 24.6 | 46.5 | 1.1 | 3.0 | 14.4 | 10.4 |
| **1977** | 25.8 | 44.8 | 1.5 | 3.9 | 13.0 | 11.0 |
| **1978** | 26.1 | 45.9 | 1.8 | 3.5 | 12.3 | 10.4 |
| **1979** | 23.8 | 44.7 | 2.5 | 4.5 | 11.1 | 13.4 |
| **1980** | 20.5 | 44.2 | 3.3 | 6.2 | 9.1 | 16.7 |

Source: Adapted from Joel Cutcher-Gershenfeld, Dan Brooks, and Martin Mulloy, “The Decline and Resurgence of the U.S. Auto Industry,” Economic Policy Institute, May 6, 2015, accessed February 1, 2017, www.epi.org/publication/the-decline-and-resurgence-of-the-u-s-auto-industry/.

**EXHIBIT 2: MAZDA SALES VOLUME, IN UNITS, SELECTED YEARS (2000–2015)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **2000/2001** | **2005/2006** | **2010/2011** | **2015/2016** |
| **Japan** | 307,000 | 287,000 | 206,000 | 232,000 |
| **North America** | 255,526 | 262,000 | 342,000 | 438,000 |
| **Europe** | 210,677 | 282,000 | 212,000 | 257,000 |
| **China** | — | 130,000 | 236,000 | 235,000 |
| **Other** | 151,296 | 194,000 | 277,000 | 372,000 |
| **Total Units Sold** | **924,499** | **1,155,000** | **1,273,000** | **1,534,000** |

Source: Adapted from Mazda Motor Corporation, *Rekindling the Spark:* *Annual Report 2000*, 12–15, accessed June 27, 2017, www2.mazda.com/en/investors/library/annual/2000/pdf/MazdaAR01.zip; Mazda Motor Corporation, *Driving Momentum: Annual Report 2005*, 26–30, accessed June 27, 2017, www.mazda.com/contentassets/9d154c6051964a598f9e4870868ca7b8/files/

mazdaar05\_e.zip; Mazda Motor Corporation, *Annual Report 2011*, 41, accessed June 27, 2017, www.mazda.com/contentassets/

8af237dce19e4cd4b8b22f9d0c626a8a/mazdaar11\_e.zip; Mazda Motor Corporation, *Annual Report 2016*, 10–13, accessed June 27, 2017, www.mazda.com/globalassets/en/assets/investors/library/annual/files/mazdaar16\_e.pdf.

**EXHIBIT 3: MAZDA HISTORICAL STOCK PRICES (2005–2016)**

Source: Adapted from “Mazda Motor Corp,” Google Finance, accessed February 1, 2017, www.google.com/finance?q=TYO%3A7261&ei=grSPWPLaG4eqjAGS4auAAQ.

EXHIBIT 4: MAZDA SALES VOLUME BY REGION (2013–2017)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | **Sales Volume (Thousands of Units)** | | | | |
| **Japan** | **North America** | **Europe** | **China** | **Other Markets** |
| 2013 | 216 | 372 | 172 | 175 | 300 |
| 2014 | 244 | 391 | 207 | 196 | 293 |
| 2015 | 225 | 425 | 229 | 215 | 303 |
| 2016 | 232 | 438 | 257 | 235 | 372 |
| 2017 (Forecast) | 233 | 449 | 260 | 238 | 370 |

Source: Adapted from Mazda Motor Corporation, *Annual Report 2016*, 12–16, accessed June 27, 2017, www.mazda.com/globalassets/en/assets/investors/library/annual/files/mazdaar16\_e.pdf.

**EXHIBIT 5: MAZDA HISTORICAL FINANCIAL STATEMENTS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Millions of ¥ | | | | | Thousands of US$1 |
| **For the year:** | **2012** | **2013** | **2014** | **2015** | **2016** | **2016** |
| Net Sales | ¥2,033,058 | ¥2,205,270 | ¥2,692,238 | ¥3,033,899 | ¥3,406,603 | $30,146,929 |
| Domestic | 560,216 | 588,042 | 655,716 | 617,397 | 660,935 | 5,848,982 |
| Overseas | 1,472,842 | 1,617,228 | 2,036,522 | 2,416,502 | 2,745,668 | 24,297,947 |
| North America | 575,633 | 651,165 | 834,803 | 1,022,247 | 1,154,428 | 10,251,575 |
| Europe | 347,346 | 347,918 | 534,937 | 613,367 | 688,984 | 6,097,204 |
| Other Areas | 549,863 | 618,145 | 666,782 | 780,888 | 898,256 | 7,949,168 |
| Cost of Sales | 1,662,592 | 1,729,296 | 1,993,643 | 2,247,720 | 2,567,465 | 22,720,929 |
| Selling, General, Administrative Expenses | 409,184 | 422,038 | 516,474 | 583,291 | 612,363 | 5,419,142 |
| Operating Income (Loss) | (38,718) | 53,936 | 182,121 | 202,888 | 226,775 | 2,006,858 |
| Income before Tax | (55,262) | 39,101 | 97,409 | 209,335 | 166,986 | 1,477,752 |
| Net Income (Loss) Attributable to Owners of the Parent | (107,733) | 34,304 | 135,699 | 158,808 | 134,419 | 1,189,549 |
| Capital Expenditure | 78,040 | 77,190 | 133,216 | 131,010 | 89,214 | 789,504 |
| Depreciation and Amortization | 68,791 | 59,954 | 57,656 | 68,872 | 78,972 | 698,867 |
| Research and Development Costs | 91,716 | 89,930 | 99,393 | 108,378 | 116,610 | 1,031,947 |
| Free Cash Flow | (79,415) | 8,746 | 16,322 | 108,911 | 154,678 | 1,368,832 |
| **At Year-End:** | | | | | | |
| Total Assets | ¥1,915,943 | ¥1,978,567 | ¥2,246,036 | ¥2,473,287 | ¥2,548,401 | $22,552,221 |
| Net Assets | 474,429 | 513,226 | 676,837 | 891,326 | 976,723 | 8,643,566 |
| Interest-Bearing Debt | 778,085 | 718,983 | 742,735 | 701,019 | 617,132 | 5,461,345 |
| Net Interest-Bearing Debt | 300,778 | 274,108 | 262,981 | 171,871 | 48,418 | 428,478 |
| Average Number of Shares Outstanding (in Thousands) | 1,863,949 | 2,989,171 | 597,829 | 597,823 | 597,819 |  |
| Number of Employees | 37,617 | 37,745 | 40,892 | 44,034 | 46,398 |  |
|  | | | | | | |
| **Amount per share of common stock:** | | | | | | |
| Net Income (Loss) | ¥(57.80) | ¥11.48 | ¥226.99 | ¥265.64 | ¥224.82 | $1.99 |
| Net Assets | 156.85 | 166.04 | 1,105.21 | 1,454.61 | 1,595.83 | 14.12 |
| Operating Income Ratio (percentage) | (1.9%) | 2.4% | 6.8% | 6.7% | 6.7% |  |
| Return on Equity (percentage) | (24.0) | 7.1 | 23.5 | 20.8 | 14.7 |  |
| Equity Ratio | 24.5 | 25.1 | 29.4 | 35.2 | 37.4j |  |

1 Based on US$1 = ¥113, as on March 31, 2016.

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EXHIBIT 6: JAPAN’S MAJOR MANUFACTURING SECTORS shipment (2013)

|  |  |  |
| --- | --- | --- |
| **Manufacturing Sectors** | **Shipment Value (¥100 Million)** | **Percentage** |
| Transport Equipment | 582,032 | 19.9 |
| Electrical Machinery and Equipment | 368,283 | 12.6 |
| General Machinery | 320,911 | 11.0 |
| Chemicals | 274,092 | 9.4 |
| Iron and Steel | 179,053 | 6.1 |
| Metal Products | 130,606 | 4.5 |
| Non-Ferrous Metals | 88,059 | 3.0 |
| Other | 977,885 | 33.5 |
| **Total** | **2,920,921** | **100.0** |

|  |  |  |
| --- | --- | --- |
| **Breakdown of Transportation Equipment** | **Shipment Value (¥100 Million)** | **Percentage** |
| Automobiles (Including Motorcycles) | 203,394 | 34.9 |
| Auto Bodies and Trailers | 5,271 | 1.0 |
| Automotive Parts and Accessories | 311,045 | 53.4 |
| Other Transportation Equipment | 62,322 | 10.7 |
| **Total** | **582,032** | **100.0** |

Source: Adapted from Japan Automobile Manufacturers Association, Inc., *The Motor Industry of Japan 2015*, May 2015, accessed June 11, 2017, www.jama-english.jp/publications/MIJ2015.pdf.

**EXHIBIT 7: AUTOMOTIVE COMPANY SALES IN JAPAN**

|  |  |  |  |
| --- | --- | --- | --- |
| **Manufacturer** | **Vehicles Sold, 2014** | **Vehicles Sold, 2013** | **% Change** |
| Total | 5,562,887 | 5,375,513 | 3.5 |
| Toyota | 1,509,149 | 1,536,260 | (1.8) |
| Honda | 848,753 | 763,388 | 11.2 |
| Suzuki | 787,361 | 701,472 | 12.2 |
| Daihatsu | 708,179 | 662,690 | 6.9 |
| Nissan | 670,315 | 678,887 | (1.3) |
| Mazda | 224,359 | 228,089 | (1.6) |
| Subaru | 169,552 | 180,824 | (6.2) |
| Mitsubishi | 125,083 | 139,016 | (10.0) |
| Isuzu | 74,556 | 63,265 | 18.8 |
| Volkswagen | 67,438 | 67,282 | 0.2 |
| Mercedes-Benz | 60,839 | 53,731 | 13.2 |
| Hino | 57,422 | 48,189 | 19.2 |
| BMW | 45,645 | 46,037 | (0.9) |
| Lexus | 44,246 | 46,772 | (5.4) |
| Mitsubishi Fuso | 42,509 | 36,731 | 15.7 |
| Audi | 31,413 | 28,676 | 9.5 |
| BMW MINI | 17,596 | 16,982 | 3.6 |
| Volvo | 13,520 | 17,149 | (21.2) |
| UD Trucks | 11,072 | 9,284 | 19.3 |
| Fiat | 7,289 | 7,007 | 4.0 |

Source: Adapted from Henk Bekker, “2014 (Full Year) Japan: Best-Selling Car Brands and Manufacturers,” Best-Selling-Cars.com, January 8, 2015, accessed February 1, 2017, www.best-selling-cars.com/japan/2014-full-year-japan-best-selling-car-brands-manufacturers/.

**EXHIBIT 8: GLOBAL AUTOMOTIVE INDUSTRY MANUFACTURERS—NUMBER OF CAR BRANDS BY COUNTRY**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Country** | **Brands** | **Country** | **Brands** | **Country** | **Brands** | **Country** | **Brands** |
| Argentina | 6 | Finland | 6 | Lebanon | 1 | Serbia | 2 |
| Armenia | 1 | France | 73 | Libya | 1 | Slovakia | 2 |
| Australia | 40 | Germany | 69 | Liechtenstein | 1 | South Africa | 7 |
| Austria | 16 | Ghana | 1 | Malaysia | 4 | Spain | 1 |
| Azerbaijan | 1 | Greece | 16 | Mexico | 3 | Sudan | 1 |
| Belarus | 3 | Hungary | 4 | Monaco | 1 | Sweden | 9 |
| Belgium | 27 | India | 14 | Morocco | 1 | Switzerland | 7 |
| Brazil | 20 | Iran | 6 | Netherlands | 9 | Sri Lanka | 8 |
| Bulgaria | 5 | Ireland | 4 | New Zealand | 9 | Taiwan | 2 |
| Cambodia | 1 | Israel | 3 | Norway | 8 | Thailand | 1 |
| Canada | 37 | Italy | 54 | Pakistan | 2 | Tunisia | 1 |
| China | 45 | Jamaica | 1 | Peru | 1 | Turkey | 5 |
| Croatia | 1 | Japan | 38 | Philippines | 1 | United Arab Emirates | 1 |
| Czech Republic | 12 | Kenya | 2 | Poland | 8 | Ukraine | 4 |
| Denmark | 5 | North Korea | 1 | Portugal | 5 | United Kingdom | 147 |
| Egypt | 9 | South Korea | 6 | Romania | 3 | United States | 150 |
| Ethiopia | 3 | Latvia | 2 | Russia | 21 | Vietnam | 2 |
| **Total Global Car Brands: 961** | | | | | | | |

Source: Adapted from “All Car Brands List and Logos,” GlobalCarsBrands, January 26, 2015, accessed February 2, 2017, www.globalcarsbrands.com/all-car-brands-list-and-logos/.

**EXHIBIT 9: TOP CAR COMPANIES AND THEIR BRAND SUBSIDIARIES (2015)**

|  |  |
| --- | --- |
| **Top Car Companies and Their Brand Subsidiaries (2015)** | |
| **Company** | **Brands** |
| **GM** | Wuling Motors, Vauxhall, Buick, Cadillac, Holden, GMC, Chevrolet |
| **Geely** | The London Taxi Company, Volvo |
| **Volkswagen** | Porsche, Bugatti, Lamborghini, Audi, Skoda, Seat |
| **Hyundai** | Kia |
| **Toyota** | Scion, Lexus, Daihatsu |
| **BMW Group** | Mini, Rolls Royce, BMW |
| **Ford** | The Lincoln Motor Company |
| **Daimler** | Mercedes Benz, Smart |
| **FCA** | Chrysler, Dodge, Ram, Jeep, Fiat, Maserati, Ferrari, Lancia, ALFA Romeo |
| **Nissan** | Datsun, Infiniti |
| **Renault** | Samsung, Dacia |
| **Tata** | Tata Motors, Land Rover, Jaguar |
| **Honda** | Acura |
| **PSA** | Citroen, Peugeot |

Source: Adapted from Benjamin Zhang, Mike Nudelman and Skye Gould, “These 14 Giant Corporations Dominate the Global Auto Industry,” *Business Insider*, February 19, 2015, accessed February 2, 2017, www.businessinsider.com/car-companies-of-the-world-2015-2.

Endnotes

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