B | RILEY Advisory Services

MARCH 2022

Monitor
Automotive

SUPPLY AND PRODUCTION WOES PERSIST

STICKER SHOCK
Prices for new and used vehicles soared to record highs amid historically low inventory levels at U.S. dealers

CHIP SHORTAGE HOLDS
Demand continued to outstrip supply as the ongoing global chip shortage put the brakes on automotive production

ELECTRIC EVERYTHING
EV sales grew in 2021 amid new product offerings as plans of an all-electric future continued for the industry

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Advisory Services

Deals are a moving target. A constantly shifting mix of people, numbers and timing. We're here to simplify this process for you. Our experts are dedicated to tracking down and flushing out the values you need even on the most complex deals, so you can leverage our hard-won knowledge to close the deal.

B. Riley Advisory Services Creates Powerhouse Automotive Group With Key Additions

1997	2014	2018	2020
Bryant Riley forms **B. Riley & Co.** Boutique stock-picking and research firm serving small caps	Merges with publicly-traded **Great American Group** Diversified financial advisory offering, adds asset disposition and appraisal business B. Riley Financial (RILY) lists on **NASDAQ**	B. Riley Financial acquires **GlassRatner** specialty financial consulting firm	B. Riley Financial acquires automotive restructuring firm, **Alderney Advisors, LLC** to join GlassRatner GlassRatner and Great American Group rebranded to form **B. Riley Advisory Services** B. Riley Advisory Services Establishes **Automotive Presence in Mexico** B. Riley Financial launches **Operations Management Services** division to operate under B. Riley Advisory Services

B. Riley Financial Acquires Automotive Restructuring Firm, Alderney Advisors - View Announcement

Alderney Advisors specializes in supply risk management, financial restructuring and turnaround situations, transaction advisory, strategic advisory, and dispute resolution for the automotive manufacturing and supplier industry. Its clients include major automakers in North America, Europe and Asia. Alderney served as the leading financial advisory firm for global automakers in the largest vehicle recall in the automotive industry's history.

B. Riley Financial Adds New Capabilities to Advisory Group; Launches B. Riley Operations Management Services - View Announcement

B. Riley Advisory Services acquired Anchor Resource Management Consulting, LLC to further expand its service offerings, officially launching B. Riley Operations Management Services. The group is focused on assisting middle market manufacturing companies that are seeking ways to produce more efficiently and operate leaner at any point during their business life cycle.

Read more about B. Riley Financial's full suite of services on page 13.

Trend Tracker

	OEM Parts	Aftermarket Replacement Parts	Aftermarket Accessories	Tires
NOLVs	Increasing ▲	Mixed ▲▼	Mixed ▲▼	Mixed ▲▼
Sales Trends	Increasing ▲	Increasing ▲	Increasing ▲	Increasing ▲
Gross Margin	Mixed ▲▼	Consistent ▬	Consistent ▬	Increasing ▲
Inventory	Increasing ▲	Increasing ▲	Increasing ▲	Increasing ▲

OEM PARTS

NOLVs for OEM parts increased as much as seven percentage points in the second half of 2021, driven by stronger demand, changes in gross margin, and changes in inventory mix.

Sales increased up to 50% year over year due to increased demand after 2020 and the initial negative effects of the COVID-19 pandemic.

Gross margins for OEM parts were mixed in the final half of the year, fluctuating up to five percentage points. Margins were negatively impacted by rising acquisition costs and lower production volumes. However, some companies were able to offset these negative factors by sourcing parts from alternative suppliers and passing along price increases to customers.

Inventory levels increased between 50% and 100% or more for many companies in the second half of 2021, partly due to businesses aiming to meet stronger-than-anticipated demand, as well as partly a result of supply shortages, which reduced overall shipping levels for several companies.

AFTERMARKET REPLACEMENT PARTS AND ACCESSORIES

NOLVs for aftermarket replacement parts and accessories were mixed in the second half of 2021, fluctuating up to two percentage points.

Both categories were positively impacted by strong demand in recent months and negatively impacted by increases in weeks of supply due to higher inventory levels. NOLVs for aftermarket replacement parts were further negatively impacted by fluctuations in gross margin.

Sales of aftermarket replacement parts and aftermarket accessories increased as much as 15% and 20%, respectively, year over year, due to increased consumer demand after 2020 and the initial negative effects of the COVID-19 pandemic.

Gross margins for aftermarket replacement parts and accessories remained relatively consistent in the final half of the year, with small fluctuations due to changes in sales mix and rising acquisition and freight costs. However, many companies successfully countered these rising costs with increases to selling prices.

Despite supplier disruptions during the second half of 2021, inventory levels for aftermarket replacement parts and accessories increased as much as 5% and 45%, respectively, due to increasing demand and rising acquisition costs.

Trend Tracker

TIRES

NOLVs for tire manufacturers and distributors were mixed in the final half of 2021, fluctuating up to two percentage points. Positive factors included increases in sales and gross margin, which were partially offset for some tire manufacturers and distributors by having higher weeks of supply on hand due to significantly rising inventory levels.

While tire sales initially fell at the onset of the pandemic, sales across the industry continued to recover in the second half of 2021, increasing 20% to 60% year over year as a result of growing consumer demand.

Despite rising acquisition costs, gross margins increased up to three percentage points for most tire manufacturers and distributors in the latter half of the year, as most companies successfully passed along increased costs to customers.

Inventory levels for tires increased up to 20% due to stronger customer demand in recent months, increased prices, and companies holding more inventory on hand to avoid potential supply chain disruptions.

Overview

This past year for the U.S. automotive industry was marked by a deluge of supply chain issues and sharp pivots, as the sector contended with production pains amid the ongoing global semiconductor shortage. However, historically low vehicle inventories led to resilient consumer demand and the start of many ambitious plans for an electrified future.

For the U.S. automotive industry, 2021 was about massive supply challenges and pledges of change. After facing an unprecedented downturn at the onset of the pandemic in 2020, many automakers began to benefit from the ensuing sales frenzies for the remainder of 2020 into the beginning of 2021, as consumer demand soared with the return of nearly pre-pandemic production levels.

However, as the automotive industry turned the corner to recovery sooner than expected, the sector was quickly faced with a mounting global shortage of semiconductors in 2021, a direct result of chipmakers rerouting their supply to the electronics industry while the world's automakers were temporarily closed down due to the pandemic, and a lack of supply once demand for automotive chips came flooding back. What followed were months of severely limited or altogether halted production of several OEM platforms this past year as manufacturers struggled to secure alternative chip suppliers to meet surging consumer demand for new cars and trucks.

Most automakers were either forced to stockpile unfinished cars and trucks at plants or ship out unfinished vehicles to be completed at dealership locations once the missing chips could be secured. Historically low dealer inventories across the country led to a significant build-up in demand, sending prices soaring for both new and used vehicles. Although inventories have recently begun to recover with more chips in production at the end of 2021, the overall shock across the U.S. economy is expected to remain substantial as the auto industry and other sectors continue to navigate global supply chain issues well into 2022.

As difficult as the year has been for production goals, automakers turned heads in 2021 by announcing ambitious pledges to have all or many of their current and future vehicle lines go fully electric over the next 10 to 15 years.

As with the rest of the economy, the outcome of the pandemic and the negative effects of any ensuing variants of the coronavirus on the automotive industry remain to be seen.

New Vehicle Sales

While demand for cars and trucks was strong in 2021, and although profitability on lower volume remained high despite record-low incentives from OEMs, the negative effects of the aforementioned semiconductor shortage, supply chain constraints, and subsequent inventory shortages tempered the industry's recovery. The seasonally adjusted annualized rate for new light vehicles totaled 12.4 million units as of December 2021, down 24% from 16.3 million units in the prior year.

Dealers held approximately 1.1 million new vehicles in inventory in December, a 59% decrease from 2.8 million vehicles in the prior year, according to the National Automobile Dealers Association (NADA). In addition to ongoing inventory shortages from supply chain issues, elevated prices continued to turn many consumers away from dealer showrooms, as the average transaction price for a new vehicle rose to an all-time high of $47,077 in December 2021.

Given the low supply and growing cost of new vehicles across the nation, more consumers turned to the used vehicle market for rides in 2021, which led to a shortage of used vehicles and a subsequent surge in used vehicle prices.

The used market experienced a phenomenon in which used cars and trucks appreciated in value amid skyrocketing demand. The average transaction price for a used vehicle reached $28,193 in December 2021, an increase of nearly 28% versus the average price of $22,087 in the prior year.

Although supply shortages added to demand for cars and trucks, inflation was a key concern for many consumers in 2021, which ultimately tempered auto sales numbers. According to NADA, inflation hit 7% on a year-over-year basis in December, which marked the steepest 12-month increase since June 1982, with indexes for new and used vehicles among the largest contributors. Price levels are expected to remain elevated through at least the second quarter of 2022, which will likely weigh on new vehicle sales going forward.

Nevertheless, the past year of high profits and low OEM incentives amid lean inventory levels have led many auto executives to pledge to continue the trend of tighter inventories once the industry is beyond its supply chain crisis. For example, Ford may move toward an order-based system in future years, which would avoid inventory glut at dealers and excessive discounts from the automaker, as well as allow for better production management across each year.

Domestic Manufacturers

Although strong demand persisted for new cars and trucks through 2021, the sales performance of most domestic automakers was tempered by production and delivery constraints amid ongoing global supply chain disruptions.

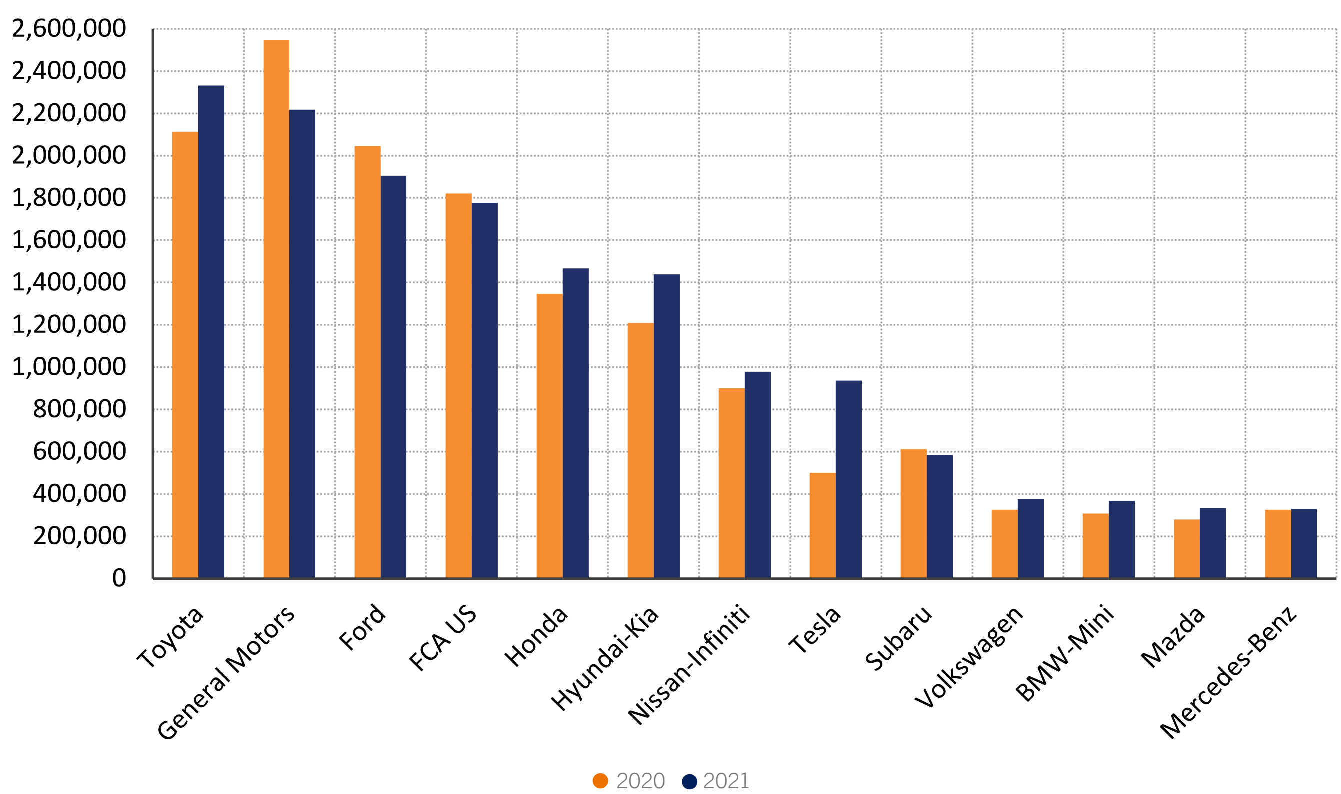
General Motors (“GM”) reported a total of 440,745 units sold in the final quarter of 2021, down 43% versus the same period in 2020. More notably, GM lost its place as U.S. leader in new vehicle sales for the first time since 1931, with full-year sales totaling 2.2 million units, a 13% decline versus 2020. The auto giant’s sales and production woes were primarily attributed to the year’s global chip shortage.

Toyota’s U.S. division took the top spot in new vehicle sales in 2021, with full-year sales totaling 2.3 million units, up 10% versus the prior year, largely due to Toyota’s stockpiling of semiconductors as part of its long-standing business continuity plan that requires vendors to maintain several months of supply for the automaker’s production needs. Nonetheless, Toyota’s December 2021 sales of 174,115 units were down 30% versus the same period in 2020 due to additional global supply chain issues amid the pandemic.

Ford finished the year in third place, reporting a full-year sales total of 1.9 million units in 2021, a 7% decline versus the prior year. The automaker reported a total of 508,451 units sold in the fourth quarter, down 6% versus the same period in 2020.

Stellantis’ FCA US reported a full-year sales total of 1.5 million units in 2021, down less than 3% versus the prior year. However, the auto giant fared particularly poorly in the final quarter, with sales down 18% versus the same quarter in 2020, due to the company’s prioritization of retail sales, which led to a decrease in fleet sales of 13% year over year.

1 U.S. Light Vehicle Retail Sales by Manufacturer
Full Year 2021 versus 2020 (in Units Sold)



Industry Trends

GLOBAL SEMICONDUCTOR SHORTAGE

While 2021 was marked with ongoing supply chain issues, the fragility of the automotive industry's supply chain began to surface as early as February 2020 when production of components from China was disrupted by the initial surge of the coronavirus outbreak.

Most notably in 2021, a global shortage of semiconductors – the critical chips used within the automotive sector to calibrate fuel injection, run infotainment systems, sense and monitor tire pressure, and provide cruise control options – upended production for nearly every major automaker. The shortage is the direct result of semiconductor manufacturers transitioning production to more profitable consumer-electronics processors after automotive plants were temporarily forced to shut down at the beginning of the pandemic and resumed operations sooner than expected.

Compounding the shortage issue is the fact that just a small handful of semiconductor manufacturers are responsible for producing over 80% of the entire world's supply. A fire broke out at the Renesas Electronics chip-making plant in Japan in March 2021, which brought production to a halt and required six months of factory repairs before the plant was back to its previous operational level. Ford was one of many automakers that were heavily dependent on the Renesas factory for their semiconductor supply. Furthermore, chip production was disrupted by outbreaks of new COVID-19 variants in sparsely vaccinated southeast Asian countries where chips are tested and packaged for industries across the globe.

What resulted was a year-long stretch of automotive production setbacks, OEM platform discontinuations, and record-low inventory levels at dealers across the country. While suppliers have slowly ramped up production efforts to meet ever-growing global demand in more recent months, some industry experts suggest that current investments in capacity will not have a sizable impact on chip supply issues until as late as 2023 due to strong demand for electronics.

Automotive experts estimate the chip shortage ultimately resulted in a loss of $210 billion in global automotive revenue in 2021, which equates to a loss of 11.3 million units of production. According to IHS Markit, a continued shortage could result in the loss of another seven million units of production in 2022 and nearly two million units in 2023.

ELECTRIC VEHICLES

Plans of an electrified future for the automotive industry were in full swing in 2021, as major automakers announced pledges to have all or many of their current and future vehicle lines go fully electric over the next 15 years.

While electric vehicle ("EV") sales still only represented 9.7% of all U.S. auto sales in 2021, steps toward the transition to an all-electric automotive market could be seen throughout the year. GM, Ford, Kia, Volkswagen, Dodge, and many other manufacturers unveiled plans for several new EV platforms and product lines. Consumer demand for new and innovative EV offerings proved to be strong, as Ford had accepted over 160,000 customer reservations by the fall for its Ford F-150 Lightning battery-electric truck debuting in 2022.

In October, leading EV player Tesla became the sixth company in U.S. history to be worth $1 trillion, as market shares shot up partly due to news of Hertz's record order of Tesla vehicles for its fleet. Tesla also stood as the second fastest company ever to reach a $1 trillion valuation in just over 12 years and nearly doubled its vehicle deliveries in 2021 versus the prior year.

Experts suggest EV sales would have likely exhibited much greater growth in 2021 without global supply chain issues impacting production. Additionally, battery troubles and a subsequent recall of some 160,000 Bolt vehicles proved a huge blow to GM's EV goals.

Nevertheless, consumer consideration of EVs has never been higher, as over 6.5 million EVs were sold globally in 2021, representing 109% growth versus the prior year.

Experience

B. Riley Advisory Services has worked with and appraised numerous companies within the automotive industry. While our clients remain confidential, they include companies throughout the automotive supply chain, including manufacturers, importers, distributors, and retailers of aftermarket, performance, replacement, and OEM parts and accessories.

B. Riley Advisory Services' appraisal experience includes the following sampling:

- A remanufacturer and distributor of alternators and starters for imported and domestic vehicles with over $170 million in sales and over $60 million in inventory, including $20 million of core inventory.
- An Internet retailer of aftermarket replacement automotive parts, including auto body and engine parts, as well as accessories, to customers worldwide. The company's $50 million of inventory includes approximately 1.8 million types of aftermarket auto parts for nearly all makes and models of domestic and foreign cars and trucks.
- OEM parts suppliers to the "big three" U.S. automakers, which includes manufacturers of transmission, interior, wheel, and accessory products.
- A full-line automotive core supplier, scrap processor, and a processor of catalytic converters.
- An importer and wholesaler of specialized aftermarket automotive wheels and parts, including wheels for the U.S. auto market available in a variety of specifications.
- A designer, manufacturer, and distributor of specialty products for the performance automotive aftermarket, including fuel, air, and internal engine management systems, which are sold to retailers and distributors.
- A retailer and wholesaler of aftermarket auto parts, including engine, wiper, undercar, heat, and cooling parts and accessories, as well as electrical supplies, oil, filters, tools, equipment, paint, chemicals, and more, all sold under well-known national brands.
- A processor and distributor of precision automotive components designed for various automotive assemblies, such as transfer cases, transmissions, and air conditioners, selling to Tier 1 and Tier 2 suppliers.
- A U.S.-based producer and recycler of automotive and industrial lead acid batteries, with locations throughout North America and the world, an inventory of approximately $200 million, and sales of $1.2 billion.
- A distributor of tires, wheels, and assemblies for utility trailers, recreational vehicles, livestock trailers, mobile homes, and other applications.

B. Riley Advisory Services has also liquidated a number of manufacturers and distributors of OEM and aftermarket parts, including Midas Corporation, Trak Auto, Smittybilt Outland Automotive Group, Inc., and American Products Company, Inc. In addition to our vast liquidation and appraisal experience, B. Riley Advisory Services utilizes input from our staff of automotive experts.

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About B. Riley Advisory Services

B. Riley Advisory Services works with lenders, law firms, private equity sponsors and companies of all types. Our Advisory Services are a unique mix of Valuation and Appraisal Services including asset-based lending (ABL) Valuations; Restructuring and Turnaround Management; Forensic Accounting and Litigation Support; Operations Management; Compliance, Risk & Resilience Services; and Transaction Support Services including Due Diligence and Quality of Earnings Reviews. B. Riley Advisory Services is the trade name for GlassRatner Advisory & Capital Group, LLC, B. Riley Advisory & Valuation Services, LLC, Great American Group Machinery & Equipment, LLC, and Great American Group Intellectual Property, LLC.

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Capitalize On The B. Riley Difference

B. Riley Financial ("B. Riley") provides collaborative solutions tailored to fit the capital raising and business advisory needs of its clients and partners. B. Riley operates through several subsidiaries that offer a diverse range of complementary end-to-end capabilities.

RANK
2

B. Riley Financial ranked No. 2 on FORTUNE 100 Fastest Growing Companies 2021 list based on revenue growth rate, EPS growth rate, and three-year annualized total return for the period ended June 30, 2021. Fortune. © 2021 Fortune Media IP Limited All rights reserved.

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