As Aftermarket Surges, Suppliers Scramble To Keep Pace

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Both Airbus and Boeing have struggled to meet their delivery targets.

Credit: Christian Brinkmann/Airbus

Barring an unforeseen global crisis similar to the COVID-19 pandemic, the near-term prospects for just about all commercial aviation manufacturers, aftermarket services providers and many operators will be determined by one factor: supply chain performance.

Airlines are counting on new aircraft deliveries to operate flights already booked. Manufacturers need parts to ensure they can push aircraft and engines out factory doors to meet monthly production targets. And MRO providers need materials and people to keep the in-service fleet flying—and in some cases, help airlines fill gaps by ensuring older aircraft can fly a few more cycles than planned.

Simply put, concerns about whether there will be demand have been replaced by those of how to meet it.

“Supply chain management is by far our No. 1 priority,” Safran CEO Olivier Andries told analysts on the company’s mid-February full-year 2022 earnings call. “We are fighting every day to get components.”

While delays at engine-makers such as [GE Aerospace](https://aviationweek.com/awin/company/26635)-Safran joint venture CFM and Pratt & Whitney received much of the blame for delivery woes in 2022, the pain has grown more widespread.

“The issues are [throughout] in the industry—propulsion, avionics, raw materials—it is everywhere,” Andries said. Engine manufacturers “are not pacing anymore.”

Nor is the aftermarket side, which generates about half of Safran’s revenue, immune.

“We still have issues on equipment everywhere, especially in the U.S.,” Andries said. “It’s also impacting some of our aftermarket activities. I can see that, for example, in the landing gear maintenance and repair.”

Multiple issues are creating supply chain constraints, from shortages of labor and materials to global shipping bottlenecks. The good news: Factors within suppliers’ control, such as staffing and capacity, are improving. But rising demand means such improvements still leave gaps.

“Supply is growing at a very rapid rate, but demand is outpacing it,” said [GE Aerospace](https://aviationweek.com/awin/company/26635) Materials General Manager Horacio Repetto at Aviation Week’s AeroEngines Americas event in February. “It’s not about when the supply chain gets healthy. It’s about when it catches up to demand. We’re going to have to work closely together in the next year or two.”

That timeline coincides with the consensus period for when traffic is expected to return to pre-pandemic levels everywhere. Several major markets, notably the U.S., are already there. The biggest outliers have been China and most long-haul segments, both due to lingering effects from COVID-19-related travel restrictions. All signs point to demand firming up in these areas and continuing to strengthen in markets that are already healthy.

“I think the air traffic will grow stronger compared to our initial expectation for the year,” said MTU Aero Engines Chief Financial Officer Peter Kameritsch on a February earnings call. “But on the other side, we saw already in 2022 constraints in the supply chain.”

“We do see continuing supply chain hiccups throughout 2023, but it’s certainly improving,” he continued, citing suppliers of “big structural parts”—forgings and castings—as a particular pain point. “They were struggling to compensate [for] the loss of employees that occurred during the post-pandemic or with COVID. They’re stepping up their personnel. They’re back in recruiting. But it takes some months, maybe even one year depending on the level of know-how [required] to qualify and certify the employees.”

Despite the headwinds, commercial MRO business is ramping up quickly. RBC Capital Markets projects that full-year 2023 civil aftermarket business will grow around 20% on the heels of a solid 2022.

Guidance and front-line reports from a few major players support this outlook. Both [GE Aerospace](https://aviationweek.com/awin/company/26635) and Safran expect aftermarket revenues to be up at least 20% year-over-year.

AAR Corp.’s airframe heavy maintenance business is “at near capacity for the foreseeable future,” said CEO, Chairman and President John Holmes on a recent earnings call.

Minimizing turnaround times has required changes, even as the company’s supply chain begins to show signs of predictability, he added.

“It’s been stable over the last few quarters,” Holmes said. “As it relates to parts availability from the OEMs and repair turnaround times, both of those elements have stabilized in the last few quarters. Lead times still are longer, for the most part, than they were pre-pandemic. So we just adjusted our buying patterns to account for that.”

One possible bright spot for the parts segment, at least on some platforms, is an increase in used serviceable material (USM). The lack of USM for some aircraft and engine types owing to the lack of retirements has added to pressure on parts suppliers, extending turnaround times. But an uptick in deals in recent months suggests airlines finally may be moving some stored aircraft off their balance sheets.

“We are seeing a loosening in the availability of supply,” Holmes said. “Engine green-time availability is decreasing, which should drive even more engine shop visits and associated USM demand. . . . We have seen more packages come available in the last couple of quarters. And we expect to see more material come on the market.”

In late March, AAR announced the purchase of nine ex-American Airlines [Rolls-Royce RB211](https://aviationweek.com/awin/program/655)-powered Boeing 757s. While the resulting USM feed’s target market—mostly operators of Rolls-powered 757 freighters—is not large, it is well-established and gobbles up cost-saving, OEM-alternative parts and repairs.

A recent TD Cowen analysis suggests more platforms will fall into this category in the next few years as demand outpaces capacity created by aircraft deliveries. The analysis says that should translate into an extended commercial aftermarket boom.

“Aftermarket prospects have improved since last December, and we believe commercial aerospace [OEMs and aftermarket suppliers] are poised for a healthy, extended upswing,” the TD note says.

Several factors are working together to drive strong aftermarket demand even higher. Chief among them is steadily rising global traffic. Cowen sees a potential 10% year-over-year increase in available seat miles in 2024.

“China just reopened its borders in early January, and the U.S. dropped testing for vaccinated passengers traveling from China to the U.S. As a result, China probably is two years behind the U.S. [in] recovery,” the Cowen analysis states. “Latin and South America are recovering at about the same rate as U.S. domestic, with leisure travel to Mexico and the Caribbean remaining strong. Airlines are returning capacity to the market, and U.S. legacy carriers continue to take advantage of partnerships in the region.”

More aircraft activity translates directly to greater maintenance demand. Mix in higher-than-average parts price increases by many suppliers to help offset inflation, and aftermarket sales have strong underlying fundamentals.

The primary intra-industry macro risk—new aircraft deliveries ramping up and bumping maintenance-hungry older models into retirement—is not considered an imminent threat.

“While deliveries will be in a strong recovery mode in 2023-25, the 1,479 Boeing and Airbus deliveries we project for 2024 still will lag the 2015-18 average of 1,485 planes,” the Cowen report says. “Moreover, they will be added to a higher capacity base. As a result, we estimate that ‘rated’ available airline capacity (assumes stable utilization) will increase 3.0-3.5% in 2024, which is well below potential for 10%+ traffic growth. Moreover, even with likely higher deliveries and higher retirements in 2025, it looks like capacity growth will be under 4%, suggesting a continuing strong aftermarket pricing environment.”

Aftermarket momentum will slow once retirements inevitably pick up, “but this doesn’t look like a concern for 2024 or 2025,” the Cowen analysis states. “That’s because aircraft retirements are at an all-time low as older planes are returned to service to offset the slippage in new aircraft deliveries. This situation is unlikely to reverse in the near term as traffic recovery is solid, and capacity growth should still lag the 2015-18 average.”

Another issue contributing to capacity shortages is new-generation engine reliability. A glut of quick-turn performance restorations and related supply chain headaches means some operators, particularly those with the newest narrowbodies, have aircraft that are nearly new sitting around waiting for engines.

“Our customers are not particularly happy with the fact that we can’t get engines to them in time because of the large numbers that are coming in for all of these retrofits,” said Gregory Hayes, CEO of Pratt & Whitney parent company [Raytheon](https://aviationweek.com/awin/company/475672) Technologies, at a late-February Barclays investor conference. “That will be a challenge for us all year long.”

Ironically, problems with the Pratt PW1000 series and other new engines may end up benefitting operators in the long run. Most new aircraft deals come with long-term engine maintenance agreements with fixed regular payments based on utilization. These incentivize OEMs to minimize overhaul costs.

While such contracts include price escalations for factors such as global labor rates and inflation, they do not account for unforeseen parts reliability issues that add repair costs. OEMs try to compensate for this by developing better parts or approving repairs that help stamp out nagging issues. These, in turn, should make the engines cheaper to operate later in their life cycles.

“We have to work on these contracts to take cost out, to improve the reliability of these engines, to develop repairs and so on to manage the fleet in an intelligent way, in a way to avoid shop visits,” MTU’s Kameritsch said. “We have to do it with our partner companies, with [Japanese Aero Engines Corp.], with Pratt & Whitney, so that we can maximize the profitability of these contracts.”



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