



NEW AND PRE-OWNED

BUSINESS JET

TRANSACTION FORECAST





LED BY A HEALTHY BALANCE BETWEEN SUPPLY AND DEMAND, STRONG MARKET FUNDAMENTALS WILL SUPPORT A PERIOD OF SUSTAINABLE GROWTH FOR BUSINESS AVIATION.

Welcome to Global Jet Capital's 2nd annual Business Jet Market Outlook. As this document enters publication, we are watching one “Black Swan” event – the COVID-19 pandemic – begin to recede in the rear-view mirror. At the same time, another one – the war in Ukraine – emerges in front of us. If you are active in the business aviation environment, you recognize that despite the continuing negative effect of COVID-19 on world health and various business sectors, its effect on business aviation has been altogether different. The pandemic more broadly socialized a value proposition those of us in the business aviation industry have always understood.

Our industry on the whole delivers remarkable and unique benefits to users: immediate and unscheduled access to travel, security, safety (including health safety) and, most of all, productivity. Put simply, our entire industry delivers a most precious commodity – time.

The pandemic has made all of us question our priorities. We see business aviation fitting into a broader narrative around flexibility – in how people utilize their time, and how they choose to travel to build and reinforce relationships. We see aircraft owners and operators increasing their usage, and there are new users entering the market through charter, fractional ownership, and whole ownership. It is the unique value proposition of business aviation, supported by a mature industry demonstrating balanced supply and demand dynamics, that will support sustainable growth for the foreseeable future.

With respect to the war in Ukraine, at this stage we anticipate minimal impact on the business aviation market, but that provides no comfort for the human suffering and devastation we are witnessing at a scale not seen since World War II. Our hope is for an end to the conflict sooner rather than later, but we believe the relevance of business aviation is heightened at a time like this, and the industry will be resilient throughout this period.

THE GLOBAL JET
CAPITAL BUSINESS JET
MARKET OUTLOOK
PROVIDES A SUMMARY
OF THE OUTPUTS OF
OUR PROPRIETARY
TRANSACTION FORECAST
MODEL COVERING
THE PERIOD OF 2022
THROUGH 2026.

It reflects projections of future activity in the business jet market in both the new and pre-owned market segments across different geographic markets around the world. The business jet market grew in 2021 as the world emerged from the COVID-19 pandemic. We forecast that this market will continue to grow over the next five years as the global economy continues to expand.

- Overall, total new and pre-owned business jet transaction unit volume are forecast to decrease 8 percent in 2022 as pre-owned transactions take a step back from all-time high volumes seen in 2021. However, the increase of new deliveries and growing demand for larger jets should drive a 3 percent increase in transaction dollar volume, despite the decrease in overall transaction counts.
- Major aircraft manufacturers reported strong order intake during 2021, resulting in increasing backlogs. As a result, most manufacturers plan to increase production over the next few years. New deliveries are expected to increase 7 percent in 2022, while new delivery dollar volume should increase 16 percent. Over the next five years, new deliveries are forecast to grow at a compound annual growth rate (CAGR) of just over 4 percent and dollar volume should grow at a CAGR of just under 8 percent.
- Following substantial increases in 2021, pre-owned transactions are forecast to decline by 11 percent in 2022, with pre-owned transaction dollar volume declining by 10 percent. An uptick in new deliveries, a continued normalization of markets, and a lack of options in pre-owned inventories should drive the decline. However, continued market demand should increase pre-owned deliveries over the next five years. Pre-owned transactions are expected to increase at a CAGR of just under 1 percent with dollar volume growing at a CAGR of over 2 percent.
- North America is forecast to continue to be the largest market for both new and pre-owned business jets, making up 77 percent of the total market. Europe is also an important market and Latin America will remain a significant market for pre-owned aircraft.

KEY THEMES DRIVING THE FORECAST

Business jet demand, measured in dollar volume, is forecast to grow at an annualized rate of 5.1 percent over the next five years. Since business jets are primarily business tools, demand is closely aligned with overall economic growth. Oxford Economics forecasts global GDP will grow 3.5 percent in 2022 compared to 2021 and will continue to grow at a steady rate after that.

One major global event on everyone's mind is the war in Ukraine. Before turning to industry-specific issues, it is worth discussing how this major conflict impacts the global business jet outlook over the next five years. Most industry sources estimate business aircraft owned by Russian entities at somewhere between 1 percent and 2 percent (estimated to be between 250 and 450 aircraft) of the global installed base (approximately 23,000), meaning it is not a major market for business jets. Any concerns that these aircraft would "flood" the market and potentially disrupt supply and demand was quickly dispelled by economic sanctions that restrict transactions in these assets by Western persons and firms. Furthermore, while those same sanctions resulted in OEMs eliminating some positions in their order books, reports indicate these cancellations were quickly absorbed by strong demand.

The market outlook could change if the conflict results in wider global economic issues. While many economists do expect economic growth to slow slightly due to the war, at this point in time they do not expect a major economic impact. With Russia constituting a limited part of the overall business jet marketplace and economists expecting a low overall expected economic impact from the conflict, our forecast does not project that the war in Ukraine will have a major effect on the market as of the time of publication.

Industry-specific factors will also drive growth over the next five years. The business jet market has experienced an influx of new users who are purchasing new and pre-owned aircraft. These new users have also utilized charter and fractional operated aircraft, causing those operators to increase aircraft purchases as well. History tells us that while some of these users will revert to commercial service over time, many will become regular users of business aviation. The increased usage by new users along with steady demand by regular users has increased flight operations. By mid-2021, flights surpassed levels seen before the COVID-19 pandemic and have continued at healthy levels into 2022.

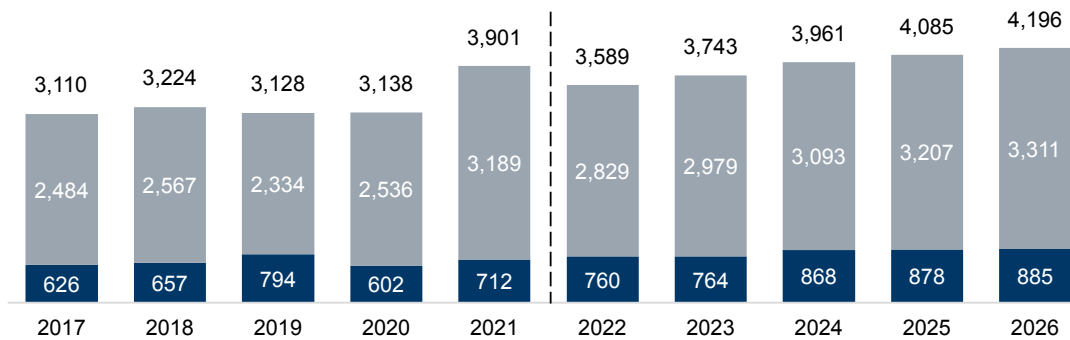
Within the new segment, manufacturers report that order flow remains solid and backlogs are increasing. They also indicate that their sales pipelines remain strong, suggesting these order levels will continue. Many of the COVID-related disruptions to operations and supply chains that began in early 2020 will begin to subside in 2022. Q1 earnings reports indicate that the OEMs plan disciplined and sustainable production increases over the next 5 years to meet current and forecast demand.

Pre-owned transactions are forecast to return to a rate more in line with the historical trend in 2022, driven by a return to normal for new deliveries. Concerns that low inventories would constrain the market have yet to be realized as demonstrated by 2021 transactions (approximately 3,200 transactions valued at \$16.6B). This points to the efficiencies in the trading environment and the ability of the dealer/broker network to connect buyers and sellers through transactions without the aircraft being listed first. Despite new deliveries returning to pre-COVID levels, the strong and growing demand for business jets over the next five years is expected to increase the number of both pre-owned transactions and new deliveries.

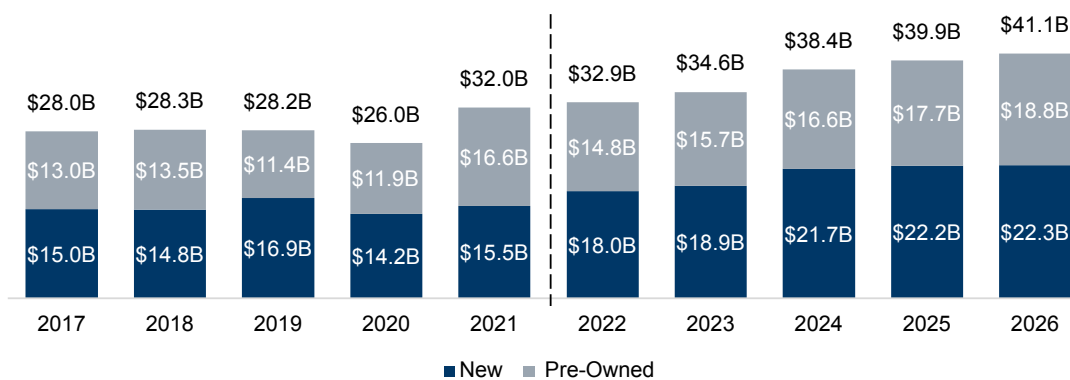
Overall, we forecast a healthy business jet market with supply and demand dynamics driving new deliveries and pre-owned transactions up over the next 5 years.

TOTAL MARKET OVERVIEW

Total Market (Unit Volume)



Total Market (Dollar Volume)



WITH THE WORLD GRADUALLY RESUMING ACTIVITY FOLLOWING A COVID-19-DISRUPTED 2020, THE BUSINESS JET MARKET GREW AT A STRONG RATE IN 2021.

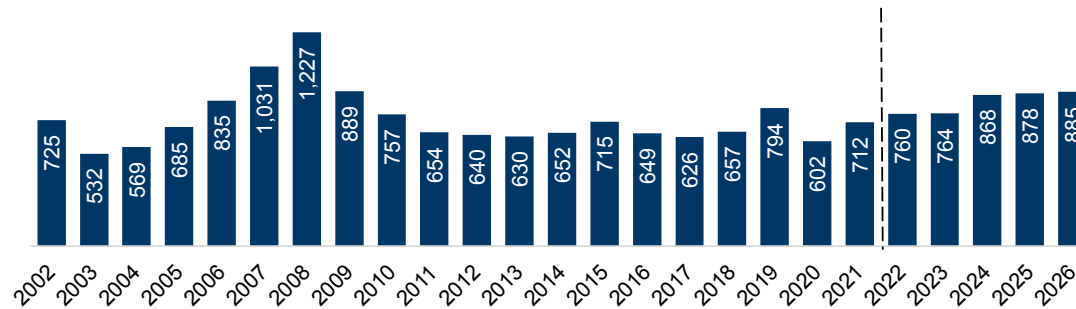
Total transactions were up 24.3 percent compared to the previous year and total transaction dollar volume was up 23 percent. Growth is expected to slow a bit in 2022, with total transactions expected to decline 8 percent. However, that decline is driven by pre-owned transactions, which despite coming off record numbers in 2021, will be impacted by a marked improvement in new deliveries. The growing popularity of large aircraft along with modest increases in new deliveries should drive dollar volume up 2.6 percent in 2022.

Between 2022 and 2026 growth is forecast to continue. Total transactions are expected to increase at an average annual rate of 1.5 percent, while dollar volume increases at an average annual rate of 5.1 percent. The biggest increases in both unit and dollar volume will occur in 2023 and 2024. During that time, OEM plans to increase production should drive up the portion of the market comprised of new aircraft. Between 2022 and 2026, we forecast new aircraft will represent 55.3 percent of the total value of the market, compared to 53.5 percent between 2017 and 2021. However, between 2002 and 2019 (which removes COVID-disrupted 2020 and 2021 from the sample), new aircraft represented 57.2 percent of the market. As such, the change in market composition will be a move toward historical norms.

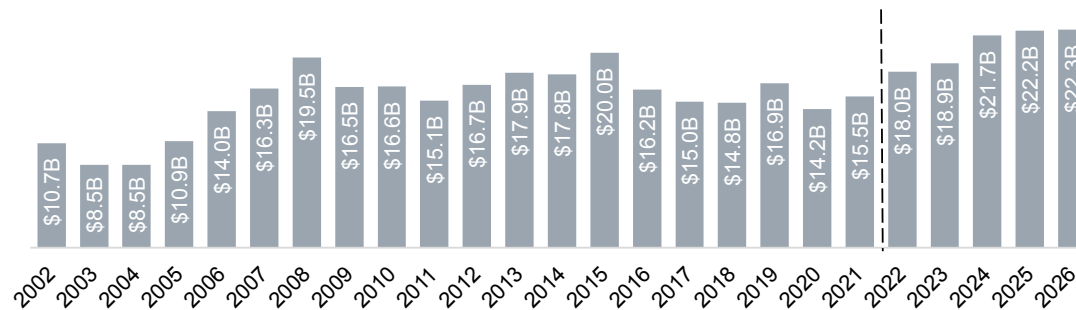
NEW MARKET OVERVIEW

AS THE WORLD BEGAN TO EMERGE FROM COVID-19-INDUCED SHUTDOWNS, NEW DELIVERIES INCREASED 18.3 PERCENT IN 2021 COMPARED TO 2020 WHILE NEW DELIVERY DOLLAR VOLUME INCREASED 9.2 PERCENT.

Total New Delivery Forecast (Unit Volume)



Total New Delivery Forecast (Dollar Volume)



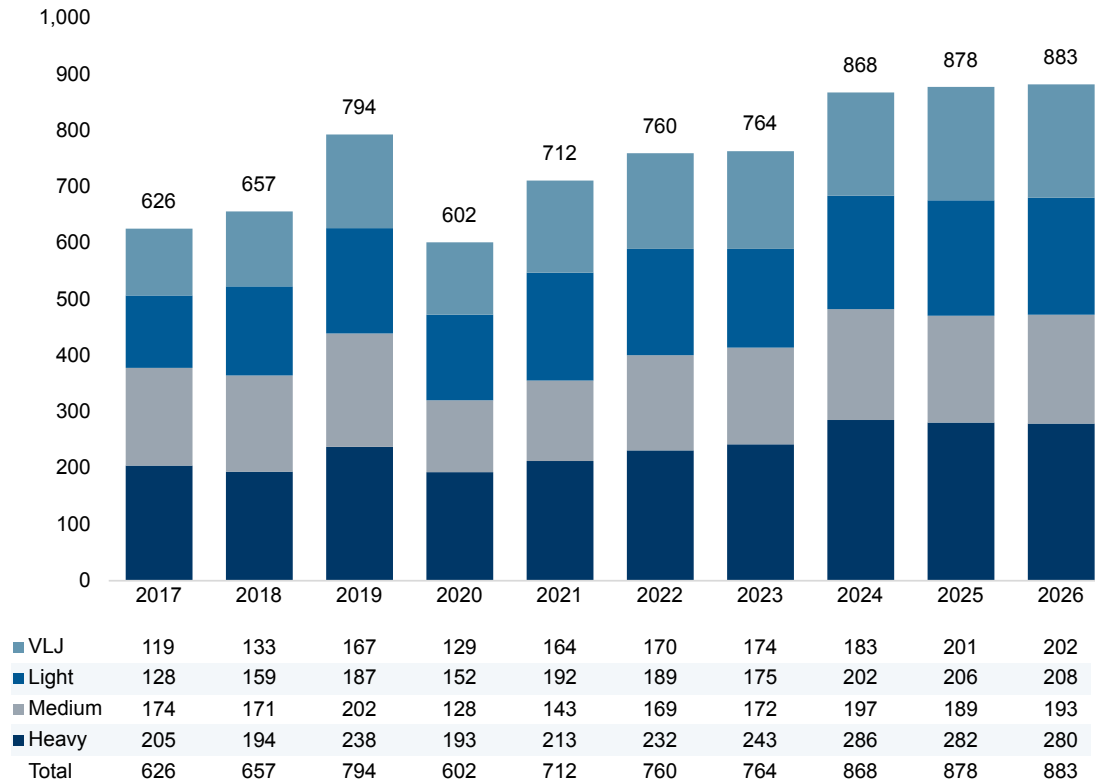
Even as manufacturers increased production levels, new orders increased even faster, driving up manufacturer backlogs. New users entering the market are evolving into a key demand driver. In addition, OEMs plan to introduce several new aircraft models over the next few years. These factors, along with typical replacement and trade-up patterns, are expected to cause new deliveries to continue to increase over the next five years.

Modest growth in deliveries is expected in 2022 as OEMs continue to increase production to meet demand. While growth will be slower in 2023, another large increase in growth is expected in 2024. Growth during these periods will be driven by pre-planned production increases and introduction of new models. Note that during these periods, dollar volume is expected to grow at different rates than unit volume due to the product mix tilting towards larger jets with the capability to serve a broad array of needs for aircraft operators and users. For example, unit delivery growth in 2022 is expected to be 6.7 percent, while dollar volume growth is expected to be 16.4 percent.

Still, we expect the period as a whole will be characterized by increasing levels of production to match increased demand. Over the next five years, new deliveries should increase at a 4.4 percent average annual rate, while dollar volume increases 7.6 percent over the same period. Between 2022 and 2026, new deliveries are forecast to total 4,155 units, valued at \$103.2 billion.

NEW MARKET BY SIZE

New Business Jet Production by Size



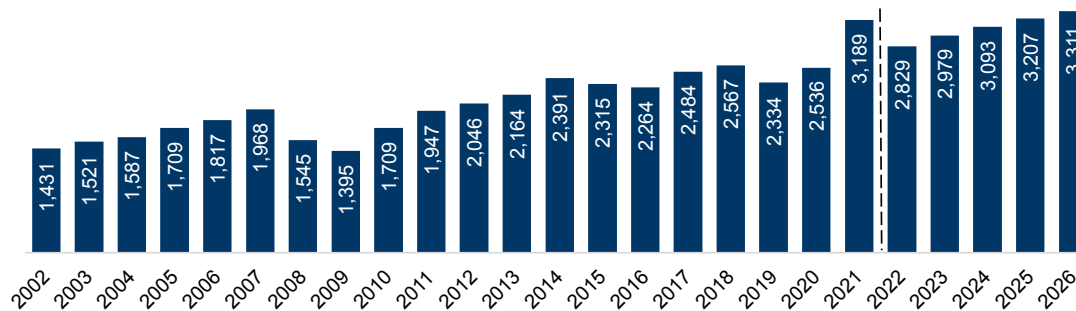
WE EXPECT DELIVERIES OF ALL SIZE CLASSES TO INCREASE DURING THE FORECAST PERIOD COMPARED TO LEVELS IN 2020, DEMONSTRATING THE GENERALLY GROWING DEMAND OF BUSINESS AVIATION.

There are a wide range of business jets that can appeal to users with different missions and budgets.

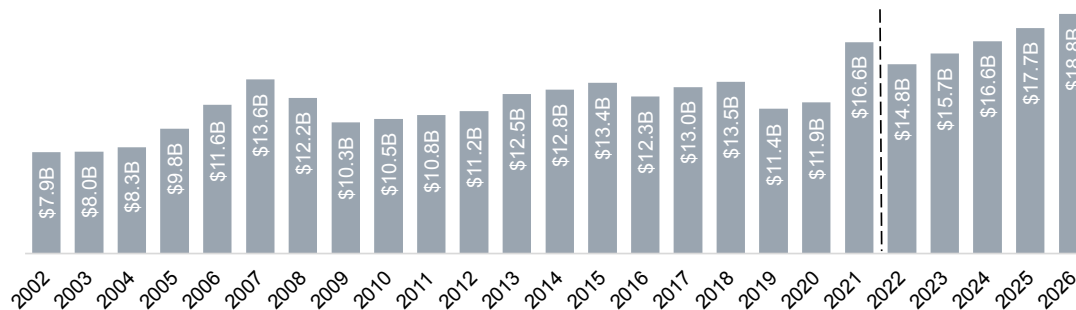
Still, heavy and medium jets should increase at faster rates than other categories. Heavy jet deliveries are forecast to increase at a CAGR of 5.6 percent while medium jets increase at a CAGR of 6.2 percent between 2021 and 2026, compared to an overall market increase of 4.4 percent. The range and passenger capacity of these aircraft make them increasingly popular. Resuming international travel will only increase the appeal of these longer-range aircraft. Manufacturers will also improve their appeal by introducing new models into the market during the forecast period.

PRE-OWNED MARKET OVERVIEW

Total Pre-Owned Transaction Forecast (Unit Volume)



Total Pre-Owned Transaction Forecast (Dollar Volume)



WITH PRE-OWNED TRANSACTIONS INCREASING 25.7 PERCENT COMPARED TO 2020 AND PRE-OWNED DOLLAR VOLUME INCREASING 39.6 PERCENT, THE PRE-OWNED BUSINESS JET MARKET PERFORMED VERY STRONGLY IN 2021.

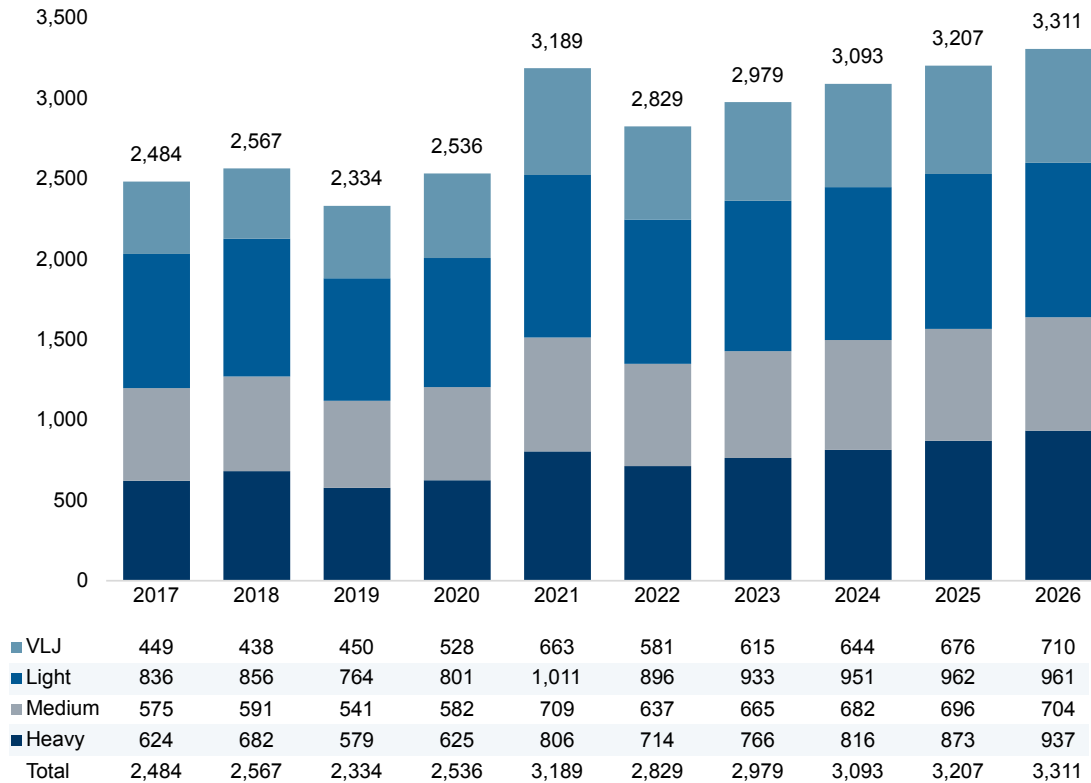
This strong performance was driven by overall robust demand for business jets from new market entrants and from charter operators looking to meet increased demand for services. While new deliveries increased in 2021, they were still not yet back to pre-COVID norms, forcing many traditional new aircraft buyers to turn to the pre-owned market.

The pre-owned market is expected to return to normal in 2022, with transactions declining 11.3 percent and dollar volume declining 10.4 percent compared to 2021. The expected change is being driven by an uptick in new deliveries (satisfying some demand in the marketplace), a continued normalization of markets as the world continues to emerge from COVID-19, and a lack of available options in pre-owned inventories.

Over the long term, we expect pre-owned markets to continue the rising trend that the market has experienced over the past two decades, driven by continued demand and a growing user base. Over the next five years, there will be 15,419 pre-owned transactions, valued at \$83.6 billion. During that time, transactions will grow 0.8 percent at an annualized rate, while dollar volume will grow at an annualized rate of 2.5 percent.

PRE-OWNED MARKET BY SIZE

Pre-Owned Business Jet Transactions by Size

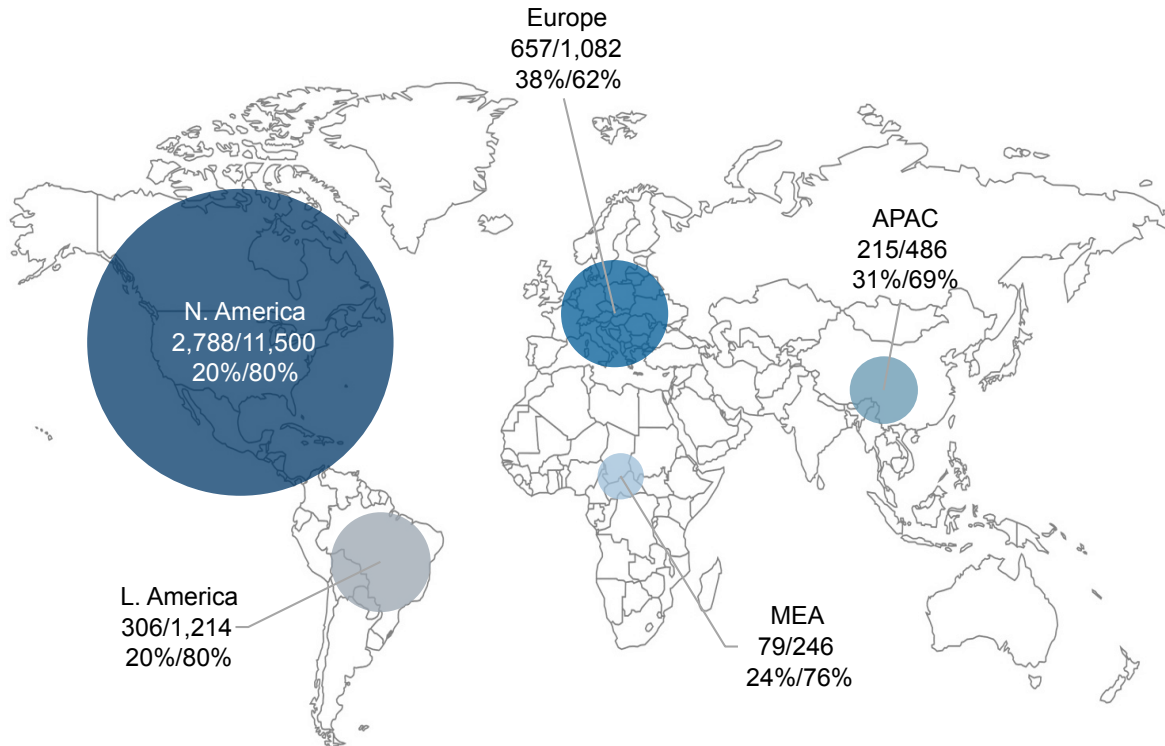


HEAVY JETS HAVE GROWN IN POPULARITY IN THE PRE-OWNED MARKET, DRIVEN BY THEIR LONG RANGE AND HIGH PASSENGER CAPACITY – THE SAME FACTORS THAT ARE DRIVING AN INCREASE IN THE NEW MARKET.

That trend is forecast to continue over the next five years, with heavy jets increasing from 25.3 percent of the pre-owned market in 2021 to 28.3 percent by 2026. During that time, we expect heavy jets will grow at an annualized rate of 3 percent compared to 0.8 percent for the wider pre-owned market. The growing popularity of heavy aircraft is the primary reason why pre-owned dollar volume should increase at a faster rate between 2021 and 2026 than unit volume.

We expect another strong performer over the next five years will be very light jets, which will increase from 20.8 percent of the pre-owned market in 2021 to 21.4 percent by 2026. The small size and low price make very light jets attractive to entry level aircraft buyers. On the other hand, medium jets and light jets are expected to decline as a percent of the overall market.

GLOBAL DISTRIBUTION OF ALL NEW AND PRE-OWNED AIRCRAFT TRANSACTIONS



*Top figures indicate new transactions/pre-owned transactions.
Bottom figures indicate new ratio/pre-owned ratio.*

NORTH AMERICA IS FORECAST TO ACCOUNT FOR 76.9 PERCENT OF THE GLOBAL BUSINESS JET MARKET OVER THE NEXT FIVE YEARS, MAKING IT THE LARGEST GEOGRAPHIC MARKET FOR BUSINESS JETS IN THE WORLD.

North America has the largest installed base of business jets, strong market maturity, and supporting infrastructure that will drive continued strength in the market.

The North American market is also driven by wide acceptance of pre-owned business jets. Over 79 percent of all pre-owned transactions are forecast to take place in North America between 2022 and 2026, with transactions involving pre-owned aircraft accounting for about 80 percent of all transactions in North America.

While North America should remain the largest market over the next five years, other regions of the world are expected to continue to drive sales of business jets as well. Europe is projected to be the second largest market between 2022 and 2026, with 9.4 percent of transactions. Latin America is forecast to be an important market for pre-owned jets, accounting for 8.4 percent of all pre-owned transactions. The remaining transactions are expected to be split between the Middle East and Africa region (MEA) and the Asia Pacific region (APAC).

GLOBAL JET CAPITAL UTILIZES A TOP-DOWN LINEAR REGRESSION MODEL, USING ECONOMIC VARIABLES AS INPUTS TO FORECAST THE BUSINESS JET MARKET OUTLOOK.

Mathematical outputs are balanced against Global Jet Capital's in-depth market knowledge and insights to arrive at a detailed five-year market forecast covering both the new and pre-owned business jet markets.

Economic data and forecasts come from Oxford Economics and are based on its analysis of current and expected future market conditions. Forecasts are based on analysis of relevant data at the time they are made. In a dynamic market, data may change rapidly and unforeseen events may lead to differences between forecasts and actual future events. Global Jet Capital does not guarantee the accuracy or likelihood of these forecasts and these projections should not be construed as advice for any business decisions.

As with any forecast, there are many risks that may result in different outcomes than expected. Upside risks include a shorter than expected conflict in Ukraine, reduced inflation and improved supply chain health, and higher than expected demand from new users. Downside risks include a longer than anticipated conflict in Ukraine with spillover into the global economy, persistent inflation tied to slower economic growth, and continued low supply due to low pre-owned inventory and OEM supply chain difficulties.

In 2021, Global Jet Capital forecast that the new market would be worth \$16.1 billion, and that the pre-owned market would be worth \$13.3 billion. By the end of the year, the new market was actually worth \$15.5 billion (3.7% lower than the forecast), and the pre-owned market totaled \$16.6 billion in transaction value (24.8% higher than the forecast). While overall transactions were 9.2 percent higher than GJC forecasts, there was also a mismatch between new and pre-owned markets. One reason for this mismatch was due to a slower than expected increase in new production. With new production failing to keep pace with demand, many buyers turned to the pre-owned market, driving up pre-owned transactions.

THE BUSINESS JET MARKET EXPERIENCED A HEALTHY YEAR IN 2021.

Flight operations, new orders, and pre-owned transactions were up, reflecting strong demand. As a result, total transactions were up 24.3 percent in 2021 compared to 2020, which was a down year due to COVID-19 disruptions. Demand from new users entering the market as well as established users upgrading their aircraft drove the increase.

The increase in transactions was expected due to signs of recovery in late 2020, such as increased orders for new aircraft and a strong Q4 in the pre-owned market. However, a slower increase in new production than expected caused much of the excess demand to be filled by the pre-owned market.

Driven by demand from new users as well as established users, growth is expected to continue over the next five years. Total unit volume is forecast to grow at a CAGR of 1.5 percent with dollar volume growing at a CAGR of 5.1 percent over that time. We expect growth will be driven by continued economic health, continued strong usage of business jets, new model introductions, and routine replacement and trade-up patterns. While the war in Ukraine remains a risk, the region is not a major player in the business jet market and is not expected to drive major disruptions in the market as of the time of publication.

Between 2022 and 2026, North America should remain the dominant geographic market for business jets, with a strong lead in new deliveries and pre-owned transactions. Europe is also expected to be an important market for business jets, while Latin America is expected to remain a strong market for pre-owned jets.

BUSINESS AVIATION SIMPLIFIED.



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