

## Overview

Led by new deliveries, the business jet transaction market stabilized in the second half of 2019 after a weak first half. New transactions increased 16.6 percent in 2019 compared to 2018, while new transaction value increased 10.6 percent.

Business jet transactions increased in the second half of 2019 as economic fears in the overall market dissipated. Despite threats to trade, economic growth remained slow and steady. Strong consumer confidence and low unemployment served to reassure many business jet market participants.

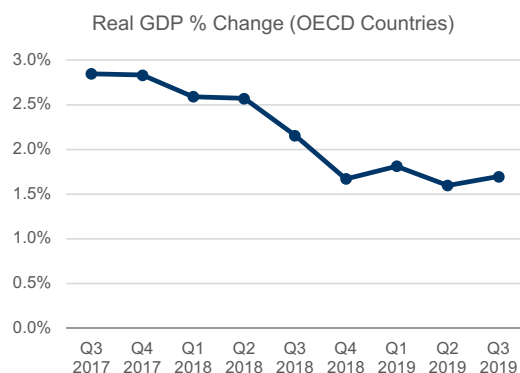
Flight operations, as reported by the U.S. Federal Aviation Administration (FAA), remained stable in 2019, growing 0.3 percent from 2018.

While the business jet fleet is aging, increased deliveries of aircraft by OEMs resulted in the installed base of newer aircraft (0-6 years) increasing at the fastest rate since 2012. Manufacturer backlogs also increased, even as OEMs boosted delivery rates on certain models. As the overall market stabilized, inventories continued to increase, but at lower rates in Q4 than earlier in the year.

Overall average residual values remained stable in 2018 and 2019, but model by model volatility continued, particularly in the heavy jet segment towards the end of 2019.

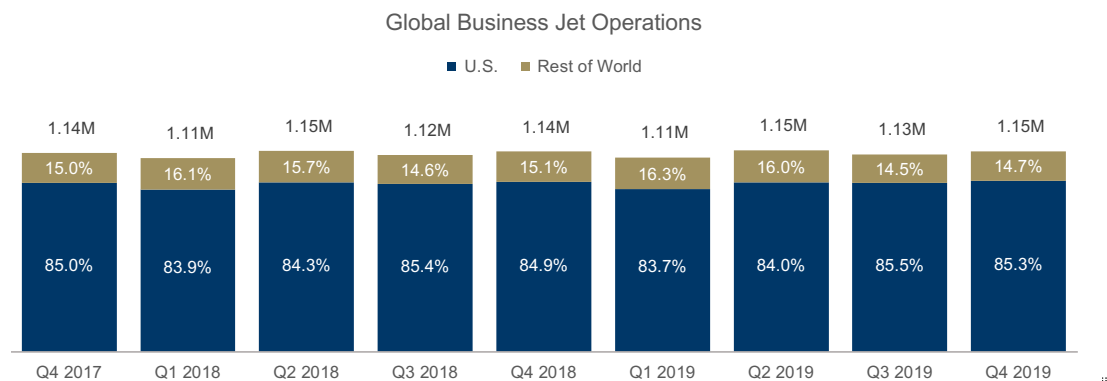
Sustainability is becoming an increasingly important issue to the business jet market. The industry is tackling the challenge head-on by developing new techniques and technologies to offset and reduce carbon emissions.

## Economy



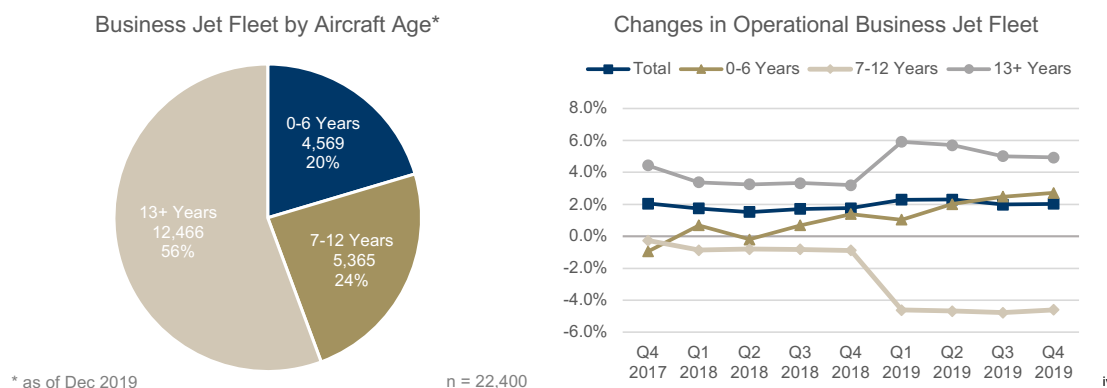
Global economic results remained mixed in Q3 2019. OECD GDP growth was lower than in 2018 but within a band between 1.6% and 1.8% in 2019. Threatened by trade disputes around the world, export value from OECD countries declined in the first three quarters of 2019. Still, unemployment remained low and consumer confidence remained high. The U.S. Federal Reserve and other central banks were aggressive in countering economic threats, allaying some investor fears.

## Flight Operations



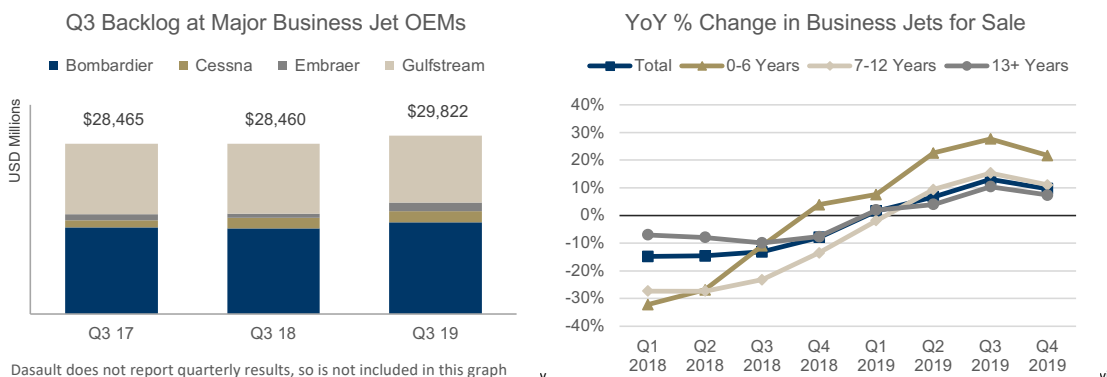
Global business jet operations were stable in 2019 following a period of growth between 2016 and mid-2018. In 2019, the FAA reported 4.53 million flight operations (defined as a takeoff and landing) around the globe, representing a 0.3 percent increase from 2018. After a slow start, operations in the U.S. accelerated throughout 2019, ending the year with a modest growth rate of 0.3 percent. In the rest of the world, flight operations grew faster in the first half of the year than in the second half. Overall operations in the rest of the world grew 0.1 percent in 2019 compared to 2018.

## Fleet Status



Fewer new aircraft produced after the financial crisis and long lifespans for in-service jets have resulted in a fleet increasingly made up of older jets (defined as aircraft older than 12 years). With an increase of 4.9 percent in Q4 2019, these jets were the fastest growing age segment, a position held since January 2017. Even as the older jet segment continues growing, OEMs increased delivery rates 16.6 percent in 2019, with 766 jets delivered by the end of the year. As a result, the number of new jets (defined as aircraft younger than 7 years) increased 2.7 percent in the third quarter, the fastest rate since late 2012. New deliveries are expected to remain strong in 2020. As some older aircraft are removed from service due to increasing maintenance costs and mandated upgrades (e.g. ADS-B Out, FANS 1/A), newer aircraft will continue to make up a larger portion of the overall installed base.

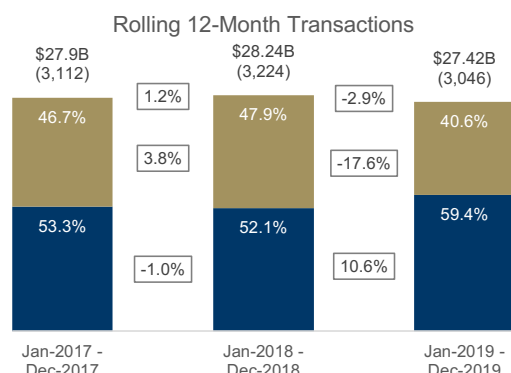
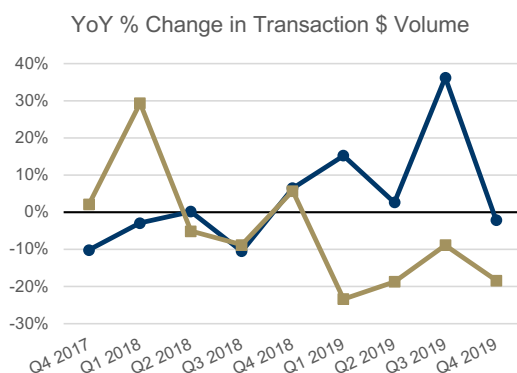
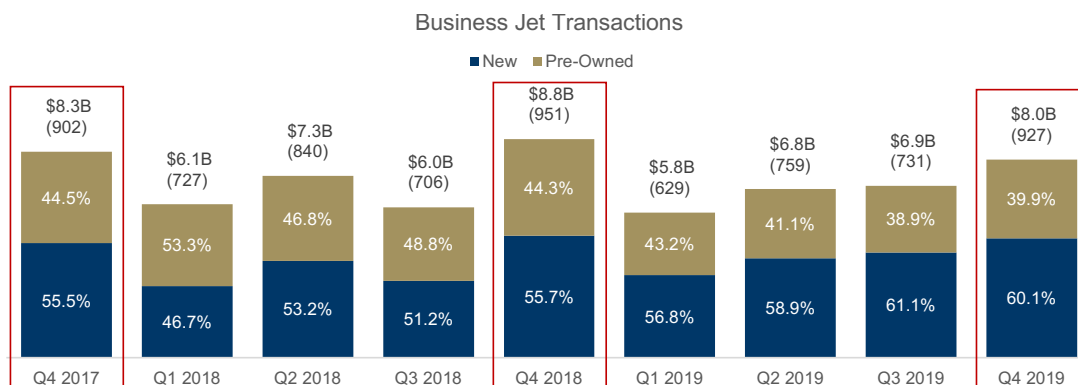
## New and Pre-Owned Market Conditions



Backlogs at major business jet manufacturers increased in Q3, driven by strong demand for recently certified new models. In Q3, backlogs at four major OEMs reached \$29.8 billion, a 4.8 percent increase from a year earlier. Strong quarterly results from Bombardier, Cessna, and Embraer drove the gains, while Gulfstream was the only major OEM to experience a decline in backlog.

Even as backlogs for new aircraft increased, pre-owned inventories increased throughout 2019 as well. As business jet customers took delivery of new jets, pre-owned transactions fell and inventories climbed, resulting in a 9.7 percent increase in Q4 compared to a year earlier. While still growing, the Q4 increase slowed down from the 13.1 percent rise in Q3.

## Transactions (\$ Volume)

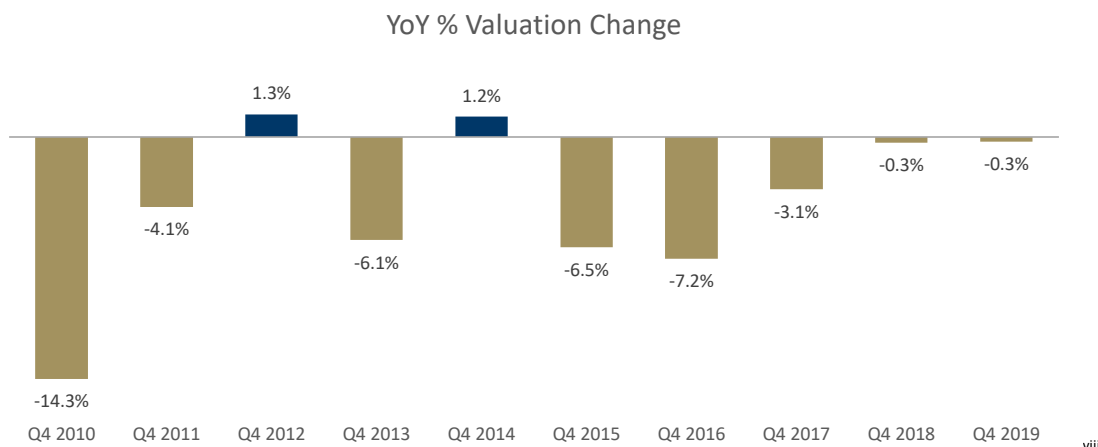


Business jet transactions in 2019 were the story of two halves. In the first half of the year, transactions by number were down 11.4 percent, leading to a decline in transactions by market value of 6.4 percent. In the second half, however, transactions by number were equivalent to 2018, while transactions by market value increased 0.7 percent, driven by an increase in new deliveries. For the year, transactions by number were down 5.5 percent and transactions by market value declined 2.9 percent compared to last year. New deliveries remained stronger than pre-owned transactions throughout the year, climbing 10.6 percent in market value compared to a 17.6 percent decline in pre-owned transaction value.

North America remained the strongest market for business jets. While pre-owned transactions in North America declined from 2018, new deliveries increased sufficiently to drive a 2.3 percent increase in market value. Both European and Asia Pacific markets declined in 2019. Market value in Asia Pacific was down 20.4 percent; however, Q4 was a bright spot, reflecting an increase of 100% from 2018.



## Residual Value



The above chart compares the year-over-year percentage change in value of like-aged aircraft over time (e.g. the difference between eight-year-old aircraft from one year to the next). The data does not indicate that the values of individual aircraft will increase or decrease over time because business jets are typically seen as depreciating assets. Instead, the chart is meant as an indication of the overall state of the market. Global Jet Capital analyzed a basket of aircraft as a proxy for the overall market. For the value of a specific aircraft, please contact a licensed aircraft appraiser.

Declining for-sale inventory and strong transaction levels in 2017 and 2018 led to stable residual value increases in 2018 and 2019. The period of stability follows a period of decline between 2015 and 2017, led by relatively lower transaction levels and weak demand outside North America. Even with overall market improvements, we note that the values of individual jets varied, particularly heavy jets in late 2019. Furthermore, fair market values routinely fluctuate from quarter to quarter as a result of multiple factors and patterns.

## Sustainability

Even though business aviation accounts for a small percentage of global CO2 emissions, the industry has taken the lead on clean initiatives as environmental issues have become more prominent. For example, during NBAA 2019, which was held in Las Vegas between October 22 and 24, sustainability was a major focus. Business jet OEMs sent jets to the show powered by sustainable aviation fuel (SAF).<sup>ix</sup> Projects such as the partnership between Shell Aviation and SkyNRG to build an SAF plant in Europe, announced in November, demonstrate the industry's commitment to a sustainable future.<sup>x</sup> Sustainable fuels continued to be a focus of the industry at the World Economic Forum in Davos, where business jet users were able to fill their aircraft with SAF for their return flights at the close of the meeting.<sup>xi</sup> Carbon offsets also improve sustainability for the industry. For example, Private Jet Services, an air travel logistics company, has initiated a carbon neutrality pledge, aiming to offset carbon from all flight operations.<sup>xii</sup>

In the longer term, the industry is working to develop electric aircraft which will produce zero carbon emissions. In a major development, Toyota and others invested \$590 million in Joby Aviation in January 2020. The startup has raised a total of \$720 million to develop an electric vertical takeoff and landing (eVTOL) aircraft since it was founded in 2009.<sup>xiii</sup>

These efforts and others will continue to drive the industry going forward, expanding the appeal of business aviation and demonstrating the positive role that flying plays in global prosperity by enabling people to travel anywhere in the world in relatively short periods to conduct business more effectively, and stay connected.

## Conclusion

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While a decline in the first half of 2019 brought overall business jet transaction levels down for the year, the transaction market stabilized in the second half to match 2018 levels (across new and pre-owned aircraft). Challenges remained for the industry as economic uncertainty continued, flight operation growth remained slow, pre-owned transactions remained low compared to a year ago, and inventories increased. Even so, robust demand for new aircraft resulted in strong new deliveries as manufacturer backlog increased.

Heading into 2020, Global Jet Capital expects new deliveries to drive the market as OEMs continue improving production efficiencies for new models and servicing backlogs that increased in 2019. In addition, sustainability will become an increasingly important issue. The industry is addressing this issue head-on by developing infrastructure to create and distribute sustainable fuel, offsetting emissions, and investing in electric aircraft.



## Global Jet Capital Recent Transactions

Global Jet Capital is a leader in the business jet financing market, providing leases and loans for both new and used aircraft. Our customers are diverse but all value flexible financing solutions for their aircraft. Below is a brief overview of a few transactions that Global Jet Capital facilitated over the previous quarter.



### Embraer

Model	New/Pre-Owned	Region	Financial Product(s)
Legacy 650	Pre-Owned	Asia Pacific	Loan

Global Jet Capital provided a senior debt loan on this aircraft for a new customer in Indonesia, marking the first deal in that country for Global Jet Capital. While managing the complexity of the customer's preferred deal structure, Global Jet Capital met and exceeded the customer's buying concept and delivered a solution that met their needs and time constraints.



### Bombardier

Model	New/Pre-Owned	Region	Financial Product(s)
Challenger 650	New	North America	Operating Lease

Global Jet Capital provided an operating lease to a US-based corporation. Global Jet Capital met the buying concept of the client in just 7 days from award to close and helped this new client get into their new jet before year end.



### Gulfstream

Model	New/Pre-Owned	Region	Financial Product(s)
G550	Pre-Owned	Asia Pacific	Financial Lease

In close collaboration with the key influencers in the region, Global Jet Capital delivered a finance lease solution to a new customer. Meeting a tight year-end timeline set by the customer, Global Jet Capital delivered this solution ahead of schedule and accomplished the ideal structure for the customer.



### Gulfstream

Model	New/Pre-Owned	Region	Financial Product(s)
G550	New	North America	PDP Financing

Global Jet Capital provided PDP financing and, upon delivery from the OEM, an operating lease to a US-based existing customer. This structure was ideal for the customer due to the limited capital outlay and residual value risk exposure that this structure provided.

## Notes

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- <sup>i</sup> Organization for Economic Co-operation and Development (OECD). Most countries have not released Q4 GDP as of publication time, so Q3 data is used in this report
- <sup>ii</sup> World Trade Organization. Q3 figures are the most recent available as of publication.
- <sup>iii</sup> U.S. FAA
- <sup>iv</sup> JetNet and Global Jet Capital analysis
- <sup>v</sup> Company financial reports. Since not all OEMs have reported results at the time of publication, Q3 results are used in this report. Dassault does not release quarterly results and therefore is not included in this graph. Embraer results are estimates.
- <sup>vi</sup> JetNet
- <sup>vii</sup> JetNet and Global Jet Capital analysis. Units are in parentheses
- <sup>viii</sup> Aircraft Bluebook and Global Jet Capital analysis
- <sup>ix</sup> [NBAA](#)
- <sup>x</sup> [Shell](#)
- <sup>xi</sup> [Neste](#)
- <sup>xii</sup> [Private Jet Services](#)
- <sup>xiii</sup> [Joby Aviation](#)

