Supply Chain: Aerospace Suppliers Disrupted

Additional Intelligence on this Topic: Global Aerospace Covid-19 Outlook


George Ferguson
Team: Aerospace
BI Senior Industry Analyst


Francois Duflot
Team: Aerospace
BI Associate Analyst

Aerospace Supply Chain Rattled, Offset by Aircraft Deferrals

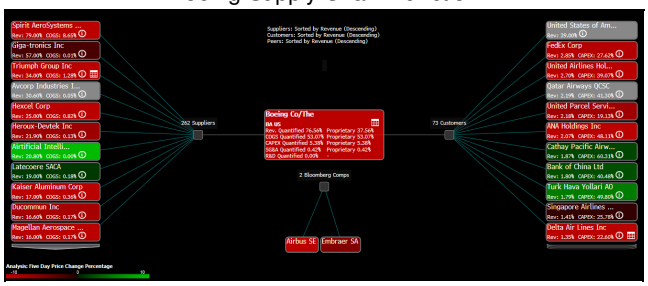
(Bloomberg Intelligence) -- Aerospace supply chains will remain disrupted by Covid-19, mitigated in the near term by lower build rates as airlines defer aircraft. Longer term, difficulty replacing failed suppliers could have a multiyear ripple effect through the industry. (04/07/20)

1. Weak Supply-Chain Diversity Hurts Aerospace

Aerospace supply chains will be challenged by their global scope and a lack of redundancy. Much of the aerospace supply chain is single-source and geographically diverse, given small volume and rigorous standards, amplifying the effects of an interruption. Boeing and Airbus count on a handful of suppliers such Spirit Aerosystems, United Technologies, Safran, Honeywell, General Electric, Rolls-Royce and MTU for many of the components used to build aircraft. We expect interruptions in manufacturing to occur throughout the chain as the coronavirus forces factories to close for cleaning and to redefine work flow to keep employees safe.

The effects will be mitigated as airlines slow deliveries, shed capacity and preserve cash. Final-assembly plant closures also help reduce the need. (04/07/20)

Boeing Supply Chain Function



Source: Bloomberg Intelligence

2. Smaller Suppliers Crushed as Cash Flow Falls

The largest challenge in the global aerospace supply chain will be loss of smaller, less financially stable companies. These supply chains, especially for engine makers, are full of modestly sized shops that produce small-lot components. Many serve the automotive industry, too, and will likely see decreased demand from both sectors. Lacking the financial wherewithal to survive an extended downturn, a number of them will fail unless they get support from larger manufacturers or governments.

Some suppliers must manage stranded investments after spending to prepare for higher production rates that may not happen for some time. In an extended downturn, these companies could fold, forcing higher-tier manufacturers to find new suppliers, which will take time and lead to interruptions and delays. (04/07/20)

Airbus and Boeing Production Rates

Airbus						Boeing						
Announced	Effective	A320	A330	A350	A380	Announced	Effective	737	767	777	787	747
Jan 2012	2012	42	9.5	-	2	Dec 2014	Sep 2015	-	-	-	-	1.3
Feb 2011	2Q 2013	-	10	-	-	-	2015	-	1.5	-	-	-
						June 2015	Mar 2016	-	-	-	-	1
July 2014	Nov 2015	-	-	5	-	Sep 2015	1Q 2016	-	2	-	-	-
Oct 2014	4Q 2015	-	9	-	-	Jan 2016	Mid 2016	-	-	-	12	-
2010	Jan 2016	A320 neo enters service										
Feb 2015	Q1 2016	-	6	-	-	Jan 2016	Sep 2016	-	-	-	-	0.5
Feb 2014	Spring 2016	46	-	-	-	Jan 2016	Jan 2017	-	-	7	-	-
Feb 2015	Q2 2017	50	-	-	-	Oct 2013	3Q 2017	47	-	-	-	-
Feb 2016	H2 2017	-	7	Cancelled		Dec 2016	Aug 2017	-	-	5	-	-
July 2016	2018				1	Sep 2015	Late 2017	-	2.5	-	-	-
	Late 2018	A330 neo enters service										
Feb 2015	Jan 2019	-	4	10	-	May 2016	Jan-18	-	-	3.5 (2)	-	-
July 2017	Jan 2019				0.66	Oct 2014	2018	52	-	-	-	-
Oct 2015	Mid 2019	60	-	-	-	Jan 2016	2019	57	-	-	-	-
						Oct-17	2019	-	-	-	14	-
Latest Rate		60	4	10	0.66	Latest Rate		42 (1)	2.5	3.5 (2)	14	0.5
May 2015	2021	63	-	-	-	Apr-18	2020	-	3	-	-	-
						Oct-19	2020	57	-	3 (2)	12	-
						Oct-19	2021	777X Enters Service				
						(1) Temporary cut to 42 from 52 announced on April 5th, 2019						
						(2) effective rate in transition to the 777X						

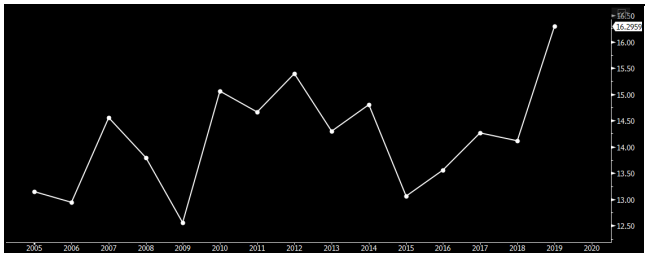
Source: Bloomberg Intelligence

3. High Standards Slow New Aerospace Suppliers

Aviation manufacturing requires high standards and certification, slowing the entrance of suppliers and lengthening the recovery time from downturn-induced failures. Tight manufacturing tolerances typically require investment in expensive machine tools and trained operators. Products are built to demanding specifications amid stringent regulatory oversight, which creates a barrier to entry and thwarts competition. It will likely take several years to return to production rates seen just before this downturn.

Diminished build rates likely equate to lower returns on investments in machine tooling and could lead to increased cost of components, hurting profitability up the supply chain. (04/07/20)

Supplier Ebitda Margins



Source: Bloomberg Intelligence

To contact the analyst for this research:
George Ferguson at gferguson5@bloomberg.net