

**ANALYSIS OF PROPOSED AGREEMENT CONTAINING CONSENT ORDER**

Avio is headquartered in Torino, Italy, and is an important designer and manufacturer of component parts for civil and military aircraft engines. Avio provides, among other things, structural parts, gearboxes, and electrical systems for aircraft engines. Avio is currently the sole designer of the AGB on the Pratt & Whitney PW1100G engine.

### III. The Products and Structure of the Markets

AGBs use the mechanical power of the rotating turbine shaft in a jet engine to power various accessory systems needed by the engine of the aircraft, including oil and hydraulic pumps and electrical systems. Although AGBs on different aircraft engines perform similar functions, AGBs are designed for the specific engine in which it will be used to account for the shape of that engine, the position of the AGB on the engine, and the configuration and specifications of the various accessory systems the gearbox will power. Because AGBs require significant cost and time to develop, and because an aircraft engine – with its AGB – must be tested extensively and certified for flight by aviation authorities before it can be put into service, an engine manufacturer cannot quickly or easily replace an engine's AGB if it encounters difficulties with its component supplier.

Avio has the sole design responsibility for the AGB on the forthcoming Pratt & Whitney PW1100G engine, which will be one of two engines available on the Airbus A320neo aircraft. While Avio is in the advanced stages of designing this AGB, further development and testing must be completed before the AGB and PW1100G engine will be certified for use by aviation authorities. Beyond that, further design work may be necessary even after the AGB and engine receive certification. Pratt & Whitney has no viable alternative to continuing to work with Avio to develop the AGB for the PW1100G, even after its rival engine manufacturer, GE, acquires Avio.

Aircraft engines provide the thrust necessary for flight and must be specifically engineered for the requirements and mission profile of the aircraft on which they are to be installed. When designing a new airplane, an aircraft manufacturer typically approaches engine manufacturers as potential suppliers and selects one or more turbine engines for the aircraft under development. These engines become customary options for that aircraft platform. Airbus chose to work with only Pratt & Whitney and CFM to develop engines for the A320neo platform. Aside from the PW1100G, the only other engine available for the Airbus A320neo is the CFM Leap 1-A engine, in which GE has 50% interest. These two engines compete for sales on the A320neo aircraft platform, and because other engine manufacturers could not design, or attain certification for an alternate A320neo engine within several years, purchasers of this aircraft do not have other viable substitutes for these engines.

The relevant geographic market in which to analyze the effects of the proposed transaction is the entire world. Engine component developers located around the world supply components to engine manufacturers who are located worldwide. The aircraft manufacturers themselves are located across the globe, sell to customers worldwide, and do not significantly alter aircraft features for specific national markets.

## **IV. Entry**

The purpose of this analysis is to facilitate public comment on the proposed Consent Agreement, and it is not intended to constitute an official interpretation of the proposed Consent Agreement or to modify its terms in any way.