The quaterly chronic of French exports are heavily dependent on the aeronautical and naval sector

Deliveries in the aeronautical and naval sector are subject to pronounced calendar effects. To be more precise, since 2016 Airbus deliveries have been particularly dynamic towards the end of the year. Nevertheless, the phenomenon is still too recent to be neutralised by correcting for seasonal variations in the quarterly accounts statistics. This partly explains the peaks observed in French exports in Q4 over the past three years. Deliveries of cruise ships and military equipment have also followed a different rhythm over the past three years.

Since 2016 the aeronautical and naval sector has accounted for a tenth of total French exports of goods and services

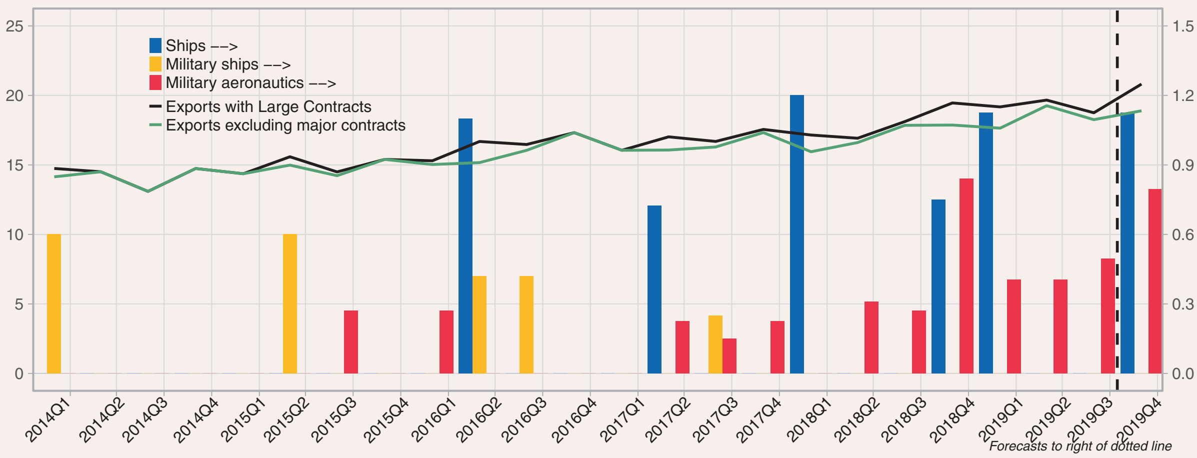
In 2018, the aeronautical and naval sector represented 15% of French manufacturing exports, and 10% of all exports of goods and services. Within these aeronautical and naval exports, a distinction is made between "major contracts," defined here as deliveries of military equipment (Rafale fighter jets) and cruise ships, and other deliveries, grouped together as "deliveries not including major contracts," composed primarily of deliveries to the civil aviation sector. While these exports cannot be predicted using the available data for world demand or real effective exchange rates, largely on account of the discretionary nature of the deliveries, they can at least be estimated with the help of sector-specific expertise: mainstream and trade media, official statements from Airbus, Dassault Aviation etc.

Exports of "major contracts" in the aeronautical and naval sector account for more than a quarter of the variability of aeronautical and naval exports in general

Deliveries of major contracts, tracked in large part via the official statements of Dassault Aviation and available information regarding the shipyards of Saint-Nazaire, have grown steadily in recent years (*Graph 1*). In fact, between 2017 and 2019, they included five cruise ships against only one of the three previous years, for respective amounts of approximatiely 4 billions and 1 billion euros. Moreover, deliveries of major contracts in the military aviation sector have also increased since 2017, with 17 Rafale jets delivered between 2017 and 2018 for a total value of around 1.4 billion Euros, and 26 more expected to be delivered in 2019.

1 - Aeronautical and naval exports

in billions of euros



Sources : Douanes, Insee, Airbus, Dassault Aviation, Chantier de Saint-Nazaire

Although the average weight of "major contracts" as a proportion of total aeronautical and naval exports is relatively low (an average of 3% since 2014), their contribution to the quarterly variability[1] of exports in this sector in the period 2014-2019 is 28%. Within the broader category of manufacturing exports, these exceptional deliveries account for just 0.5% of value but contribute 6% of total variability.

Outside of major contracts, other aeronautical and naval exports account for almost half of the variability of manufacturing exports

Excluding "major contracts," aeronautical and naval exports contributed 46% of the quarterly variability of French manufacturing exports over the period 2014-2019, despite representing on average just 14% of exports in value terms. These exports are also strongly correlated with the number of aircraft delivered by Airbus from its French factories: the correlation coefficient, calculated for the period 2014-2019, is +0.7. Analysing these deliveries is thus essential in order to understand the development of French exports.

Since 2016 Airbus has continuously increased its delivery target, hitting new records at the end of each year

The contribution of the aeronautical sector to French exports is all the more significant since delivery rates can vary significantly from one quarter to the next: they have increased considerably towards the end of each year[2] since 2016 (*Graph 2*). In all, these year-end peaks contributed +0.6 points to the average increase in French manufacturing exports observed in Q4 between 2016 and 2018.

In 2019, problems with the Boeing 737 Max could boost Airbus deliveries

Although 2019 started at full steam for both of the world's leading aeronautical manufacturers, with annual delivery targets revised upwards (an objective of 880 deliveries for Airbus, revised to 860 in October, up from 800 in 2018; Boeing expected to deliver 900 aircraft, up from 806 in 2018), two accidents in October 2018 and March 2019 saw the whole 737 Max fleet grounded until further notice.

1. Breaking down aeronautical and naval exports (CL2) into deliveries covered by major contracts (GC) and other deliveries (hGC), the contribution of both components to the variability of CL2 exports is calculated using the following:

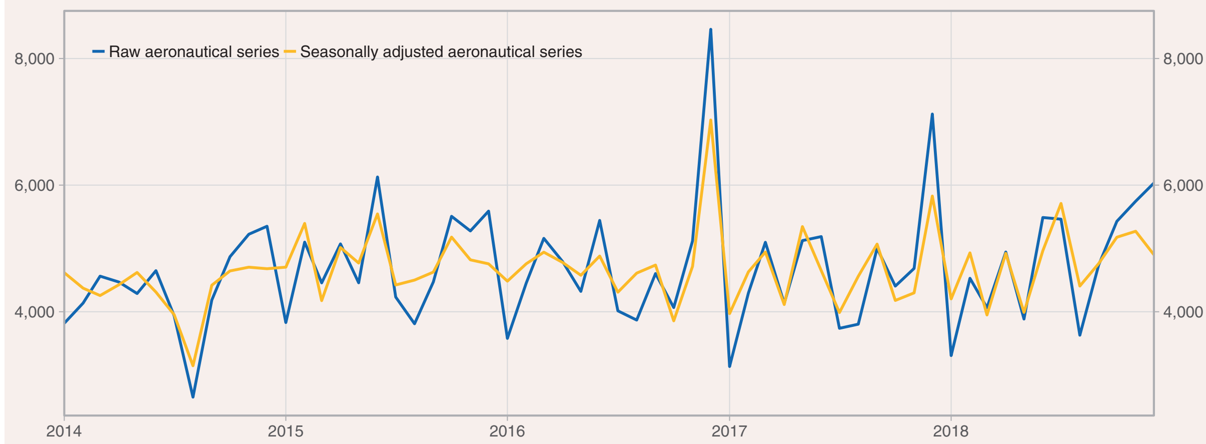
$$\left(\Delta X_{(CL2)_t}-\Delta X_{(CL2)_{t-1}}\right)^2=\left(\Delta X_{(CL2)_t}-\Delta X_{(CL2)_{t-1}}\right)*\left(\Delta X_{(GC)_t}-\Delta X_{(GC)_{t-1}}\right)$$
$$+\left(\Delta X_{(CL2)_t}-\Delta X_{(CL2)_{t-1}}\right)*\left(\Delta X_{(hGC)_t}-\Delta X_{(hGC)_{t-1}}\right)$$

A similar analysis can be performed for manufacturing exports, distinguishing between sales from the aeronautical sector (which are also split between major contracts and other sales) and those from other sectors (chemicals, capital goods, food and agricultural products etc.).

2. Since 2016, the increases in deliveries recorded in Q4 have been partially corrected by seasonal adjustment. Despite three successive years of year-end delivery acceleration, the seasonal adjustment coefficients remained almost the same as before. Airbus wants to smooth further its deliveries during the year, including by increasing its production capacity, so the rise specific to the last quarter may fade in the future.

2 - Exportations aéronautiques des douanes en valeur brute et désaisonnalisée aux sens des comptes nationaux

données mensuelles en milliards d'euros

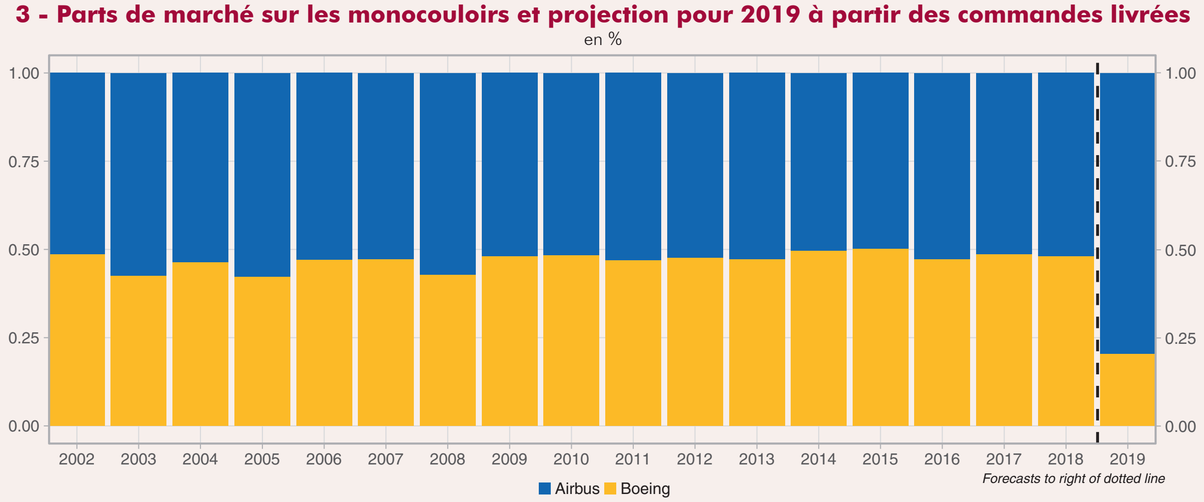


Source : Douanes, Insee

Orders and purchase agreements for single-aisle aircraft, the category to which the Boeing 737 Max and the Airbus A320 belong, were virtually identical for both manufacturers at the Le Bourget trade fair in June 2019, with each firm recording 200 orders or agreements. Nevertheless, Airbus seems better placed to hit its annual target than Boeing: the most recent data available (November 2019) indicate that the European group has delivered almost ¾ of its annual target whereas Boeing has delivered just over a third more than in October. On the assumption that the American firm continues deliveries as a constant rate, on account of its recent difficulties, while Airbus continues to stick to its annual target, then the European group should account for almost 80% of the market in single-aisle aircraft in 2019 (*Graph 3*). The 737 Max crisis and the temporary halt in deliveries of that aircraft could thus bolster orders and deliveries from Airbus, contributing to the future growth of French aeronautical exports.

In Q4 2019, manufacturing exports should pick up (+1.2% after –0.5%). Taking into account those deliveries already completed and the target set by Airbus, the increase in aeronautical exports excluding major contracts should contribute approximately +0.5 points to this increase, while the delivery of the cruise liner Grandiosa should contribute +1.1 points. All in all, the growth of exports of manufactured goods, which represent around 69% of total French exports, should contribute +0.8 points to the predicted increase (+1.0%) in total exports in Q4 2019, almost all of which can be attributed to deliveries of aircraft and major defence and naval contracts. ■

3 - Parts de marché sur les monocouloirs et projection pour 2019 à partir des commandes livrées



Hypotheses: Airbus hits its target for deliveries of single-aisle aircraft and Boeing's deliveries remain constant, leading to a total number of deliveries in 2019 far below the annual target announced by Boeing in January 2019.
How to read it: In 2018, of all deliveries of single-aisle aircraft completed by Airbus and Boeing, 52% came from the former and 48% from the latter. In 2019, 80% of deliveries of single-aisle aircraft are expected to come from Airbus, leaving just 20% for Boeing.
Source : Boeing, Airbus