

GAO Highlights

Highlights of [GAO-13-539](#), a report to congressional committees

Why GAO Did This Study

Titanium is used in airframe components and jet engines, in part because it provides greater strength at lower weight than other metals. It is produced in a number of shapes, including bars, billets, and sheets. By law, U.S. manufacturers are generally required to use U.S. produced titanium for DOD aircraft components, unless an exception applies. One exception allows companies in 23 “qualifying countries” to use foreign produced titanium when manufacturing aircraft components for DOD. There is concern that U.S. manufacturers are losing market share to qualifying country manufacturers that are able to use foreign produced titanium.

The House Armed Services Committee report accompanying the National Defense Authorization Act for Fiscal Year 2013 mandated that GAO assess the ability of U.S. aircraft component manufacturers to compete for DOD contracts. In this report, GAO assessed (1) available data on titanium prices, (2) available data on U.S. and foreign manufacturers’ market share of DOD aircraft component contracts, and (3) the factors that affect the ability of U.S. aircraft component manufacturers to compete for DOD contracts. GAO reviewed Census foreign trade data, the best proxy for titanium prices; federal procurement data; and relevant industry studies; and interviewed a broad range of government and industry officials.

What GAO Recommends

GAO is not making recommendations in this report. Agencies and third parties reviewed GAO’s draft report and technical comments received were incorporated as appropriate.

View [GAO-13-539](#). For more information, contact Belva M. Martin at (202) 512-4841 or martinb@gao.gov.

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DEFENSE SUPPLIERS

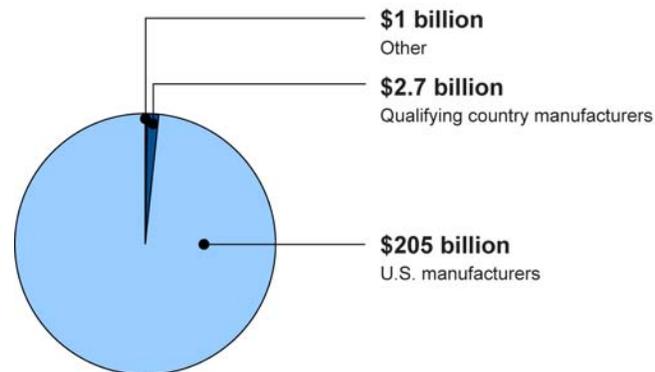
Factors Affecting U.S. Titanium Aircraft Component Manufacturers’ Market Share of DOD Business

What GAO Found

Census data show that U.S. and foreign produced titanium prices varied from 2003 through 2012 depending on the product. For example, in 2012, the export price (the proxy for the U.S. price) for titanium bar—used to make engine blades—was higher than the import price (the proxy for the foreign price), while the export price for titanium sheet—used to make wing components—was less than the import price. Industry officials noted that these differences may be due to varying operating costs and titanium production capabilities in different countries and to titanium producers’ negotiated agreements with prime contractors or aircraft component manufacturers.

U.S. aircraft component manufacturers receive the majority of Department of Defense (DOD) business, whether through direct purchases by the department or through purchases made by its prime contractors. Based on obligation of procurement money, 98 percent of DOD’s purchases of aircraft components went to U.S. manufacturers from fiscal years 2008 to 2012 (shown in the figure below). The remainder went to foreign manufacturers, primarily from qualifying countries. DOD prime contractors reported that over the past 10 years they have bought 70 to 100 percent of DOD titanium aircraft components from U.S. manufacturers.

DOD Aircraft Component Obligations to U.S. and Foreign Manufacturers, Fiscal Years 2008-2012



Source: GAO analysis of federal procurement obligation data.

Industry officials identified management of titanium sourcing and industry consolidation, rather than titanium price, as factors affecting competition between aircraft component manufacturers for DOD business. Prime contractors generally manage titanium sourcing decisions for their DOD component manufacturers through long term agreements and an approval process that often directs competing manufacturers to the same titanium source, thereby potentially reducing pricing advantages available to aircraft component manufacturers in qualifying countries. Many officials from aircraft component manufacturers also identified industry consolidation of the titanium producers and component manufacturers as a factor that could affect their access to titanium for DOD contracts, although they have not yet seen any adverse impacts.