Impact of the Russia-Ukraine war on aerospace and defense

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The Russia-Ukraine war is having significant immediate effects on the aerospace and defense industry. And, we believe, it will postpone the recovery cycle in air travel and aircraft demand that many executives planned for in 2022. In this brief paper, we examine how the war and sanctions on Russia will impact A&D manufacturers, as well as measures they can take to prepare for these developments.

Four areas of impact

Military spending

The war has galvanized NATO members, as well as countries outside the defense pact, such as Sweden and Finland (which are considering joining), and Japan, South Korea, and Australia. Governments are publicly declaring that more arms spending is on the way.

In the U.S., the 2023 defense budget request totaled $773 billion, and spending will likely exceed $800 billion, when adding in defense spending outside the DOD budget.[1] This compares with $778 billion in spending in fiscal 2022 and could go higher by the time Congress finalizes the budget. Germany has pledged more than $110 billion of the 2022 budget for defense forces and other European countries are likely to increase spending also.

Supply chains and inflation

The sanctions imposed on Russia have effectively cut off supplies of key materials used in aerospace and defense equipment. The most notable of these are titanium, used in jet-fan blades and landing gear and nickel, for armor plating and rocket engines. Russia is the third-largest producer of these two metals.

Russia supplies approximately 30 percent of the titanium used by Boeing and the three largest engine producers, GE, Pratt & Whitney, and Rolls-Royce. Airbus relies on Russia for about half of its titanium. A&D manufacturers are also big buyers of semiconductors, which are affected by looming shortages of neon gas used in chip manufacturing. Ukraine supplies 70 percent of the world's neon.[2]

One possible beneficiary may be China, which is the largest producer of titanium and the seventh-largest supplier of nickel. Other countries, such as Japan, are expected to step up supplies of titanium sponge to Western companies.[3]

Closure of A&D facilities in Russia

Western sanctions against Russia are affecting the activities of a wide range of A&D businesses. Boeing has suspended the operations of its Moscow Design Center where it employs 1,000 people.[4] Safran of France has halted its joint venture with Sukhoi in Russia,[5] which produces engines for regional jets. Honeywell and RTX-Collins have suspended all sales, distribution, and service activities in Russia.

Postponed recovery

The war is likely to dampen the recovery of civilian air travel, which was previously forecast to rise strongly. Aircraft orders, especially for long-haul, twin-aisle aircraft, are no longer expected to meet expectations from the start of 2022.

The surge in jet-fuel prices, which reached a 14-year high in April, will likely hit both the top and bottom lines. Rising ticket prices

[1] Source: "Germany commits €100 billion to defense spending," Deutsche Welle, February 27, 2022
[2] Source: "Russia-Ukraine war: Impact on the semiconductor industry," KPMG LLP, 2022
[3] Source: Jennifer Creery, Eri Sugiura,and Hudson Lockett, "Japan's titanium makers expected to gain more US business from Ukraine war," Financial Times, April 9, 2022
[4] Source: Dominic Gates, "Boeing suspends Moscow engineering center and halts support to Russian airlines," The Seattle Times, March 2, 2022
[5] Source: Matthew Dalton, "French Aerospace Manufacturer Safran Stops JVs in Russia," The Wall Street Journal, March 11, 2022

are expected to reduce demand and some carriers have already cut back on routes with low occupancy. Until the war ends, we expect travel demand in Europe to be depressed. On the profit front, we know that in the past, a 10 percent increase in fuel prices has raised operating costs by 3 percent.[6] International carriers face the additional costs of flying around Russian airspace.

Even with reduced demand, airframers and suppliers could be hamstrung by labor shortages. When the pandemic shut down the economy in 2020, companies laid off 10 to 25 percent of their workforces. Many skilled workers have taken early retirement and fewer young people are entering the workforce, making it difficult to refill positions.

What A&D leaders can do now

- **Consider supply-based geographic footprints.** Airframers and their major suppliers should intensify efforts to mitigate global supply-chain risks, diversifying sources of raw materials and components. More "reshoring" and "near-shoring" can be expected in Europe and the U.S., encouraged by governments.[7]
- **Address single-point failure risks.** Airframers and Tier-1 suppliers should ask whether or not they need to acquire content/technology at strategic parts of the chain to reduce risk. Companies may want to vertically integrate components that have been exposed to single-point supply chain failure.
- **Prepare for increased defense spending, with a caveat.** Defense primes and suppliers may see an uptick orders overall, but some specific sub-sectors will benefit more (e.g., Space, C4ISR), while others will benefit less, or even see a slight contraction. The caveat is that defense budgets are assuming an approximately 2.5 percent inflation rate. If that holds, budgets will not keep pace with current status and will decline in real terms. We do expect changes to the initial request made by the Biden administration.
- **Plan for both short-term and long-term inflationary pressure.** The hoped-for slowdown of inflation in the second half of 2022, now seems less likely.[8] Understanding and planning for a longer period of rising prices and the potential impact on both costs and consumer demand is a top planning priority now.
- **Make plans for a slower recovery.** If demand for aircraft rises more slowly than airframers and suppliers forecasted coming into 2022, or starts to decline, plans for investment, hiring, and component orders and deliveries will need to be revised. Executives should consider scenario-based planning and prepare a range of responses to such possibilities.

[6] Source: Nathan Diller, "How soaring gas prices are affecting the cost of flights," The Washington Post, March 10, 2022
[7] Source: Luigi Gentili, "Reshoring and New Globalization: The Future of Supply Chains, "European Business Review. October 5, 2021
[8] Source: KPMG LLP Office of the Chief Economist

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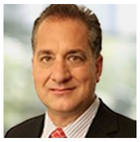

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