CLOUGH CAPITAL

INDUSTRY INSIGHT

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Navigating the Aerospace & Defense Supercycle

Aerospace and defense stand at a pivotal moment. Once a modest corner of the capital markets, these industries now draw renewed attention as structural, geopolitical, and market forces converge to set the stage for what we think will be a multi-year cycle of growth and innovation. This insight examines the key dynamics shaping the sector's prospects, with a focus on compliance considerations and thematic shifts that are particularly relevant to today's investment professionals and product marketers.

The Anatomy of Industry Profit Cycles
From Underinvestment to Margin Expansion

The strongest industry-related profit cycles generally begin after falling demand, low pricing and profits have caused a long period of underinvestment. Eventually, demand catches up with production ability, shortages build, pricing improves, and a new profit cycle begins. In the defense and aerospace industries, a new profit up-cycle can last years. For one, new plants take a long time to plan, permit and construct. Secondly, new plants will usually not even be planned until returns on that investment are already high enough to encourage new construction.

Thirty Years of Underinvestment:
Secular Headwinds Become Tailwinds

The U.S. has been underinvesting in its aerospace and defense industries for over 30 years, ever since the 1989 fall of the Berlin Wall. Its defense capital stock has declined in real terms and much of it has become obsolete. The timeline necessary to rebuild it to a level that matches the threats the country faces is long, perhaps a decade or more. That is important to profits, because once production in innovative technologies matures, operating margins can remain high for years.

There have been two 10-year periods since World War II in which the United States has found itself vulnerable, defense and aerospace spending boomed, and defense and defense electronics stocks became market leaders.

Defense spending declined after World War II and much of the defense capital stock was turned back to producing consumer goods until, in 1957, Russia launched the first space satellite named Sputnik.

That marked the beginning of more than a decade-long defense boom, which placed a new national priority on scientific research and technological innovation to make up for the perceived Soviet advantage. Funding for science and engineering surged, leading to breakthroughs in microelectronics, surveillance and missile guidance system technologies which led to the development of the microprocessor and ultimately, the Internet. Dozens of electronics companies issued stock IPOs, including Analog Devices Inc., Applied Materials Inc. and Avnet Inc.. Traditional valuation metrics were discarded as investors chased stories of unlimited growth, with price-to-earnings multiples reaching 110x to 200x.

The rise of mutual funds and heavy public participation in the financial markets amplified the enthusiasm.

When the Vietnam War ended, the defense industry again fell into a deep depression. But by 1982, the nation feared that the Soviet Union once again posed an existential threat to the American way of life and another defense boom was underway. Defense budgets soared from $143 billion in 1981 to $304 billion in 1989, totaling $2 trillion over the decade. Defense spending exceeded 6% of gross domestic product ("GDP") in the mid-1980s. The U.S. built a 600 ship Navy. The largest initiative, named "Star Wars," a space-based missile defense system designed to protect the U.S. from nuclear attack, though never fully built, spurred technological innovation on a massive scale, and eventually put enough pressure on the Soviet Union to bring it down.

Geopolitical Drivers and the New Reality

Global Tensions Place a Premium on Innovation

The U.S. today reputedly remains the most powerful military force in the world, but its strength has languished. Recruiting shortfalls have plagued the military and the U.S. industrial base has been contracting since the early 1990s. China's shipbuilding capacity vastly outweighs ours and U.S. military forces are no longer sized to respond to multiple military crises. So, we read in the media that ammunition and missiles needed to fight a protracted war do not exist. Additionally, our adversaries are becoming aggressive. Russia today is turning out artillery shells, drones and missiles at rates well above its needs in Ukraine. Allied leaders recently met in The Hague and two things came out of those meetings: first, the U.S. committed to Europe's defense; and second, NATO nations committed to spending 5% of GDP on weapons and cyber defense systems. European defense leaders stated their view that an attack on Europe could occur within the next five years. Denmark stated that Russia could start a ground war with a local neighbor as early as 2026, likely the Baltic states. Russia is upgrading its nuclear facilities in Kaliningrad, a Russian enclave situated between Poland and Lithuania, and is upgrading its military bases along the border with the Baltic states. The Russian Navy plans to launch enough vessels to control the Baltic Sea over the next few years. These threats have become existential to Europe.

At the same time, we see cultural aversion to supporting American defense and appreciation of western values and safety is dissipating. Even Silicon Valley is now supportive of U.S. defense. Support for a defense buildup in the nation and in Congress is building rapidly.

Structural Advantages for Incumbents

The Procurement Imperative and Barriers to Entry

Procurement cycles in the defense industry are long, giving visibility to the outlook for demand and growth, ranging from seven years to more than ten years for

start-ups. This slows down the emergence of competitors to the major defense contractors. Many start-up defense related companies are still private, offering no cash out to investors. The problem is that procurement cycles are longer than the life span of private equity funds. The advantage this gives to incumbents is they have the opportunity to acquire expansive technologies by offering buyouts to private firms offering those new technologies.

On the commercial aircraft front, production, though expanding, is unlikely to pull up or surpass demand over the next decade. Not only do global airlines need 737s and A300s to meet traffic growth, but 15 to 20% of the fleet is constantly in need of upgrading, a need which will likely extend well into the 2030s. Each year more planes will reach the 17- to 20-year point where they are uneconomical.

Because aircraft backlogs run out 8 to 10 years, pricing is improving and gross margins built into those later-year backlogs are rising. Ordinarily, aircraft are sold at a discount of about 20-50%, but those discounts are shrinking. Even China has re-entered the scramble to acquire 737s and A300s. Boeing's production is finally ramping up. Its plants are set to deliver 38 737s this month and in a few years, they plan monthly deliveries of 50 or more. The wide bodied 787 has also reached a year-to-date delivery rate of 24, up from 13 at the beginning of the year. We think the 787 could become the world's most popular widebody aircraft since the 747, because it can efficiently service secondary airports.

Conclusion

Enduring Forces Shape an Enduring Opportunity

We believe the aerospace and defense sector is entering a secular upswing catalyzed by underinvestment, rising geopolitical risk, and shifts in public and corporate attitudes. Extended procurement cycles and ongoing demand for fleet and technology renewal anchor a multi-year visibility not common in other cyclicals. For investment professionals, compliance teams, and marketers, we think these trends offer a foundation for thematic content and client education grounded in deep industry dynamics and regulatory best practice.

Key Players in Aerospace & Defense

MISSILES
Kratos, Northrop Grumman, L3Harris, Raytheon Technologies, Lockheed Martin

UNMANNED AERIAL SYSTEMS (UAS)
Kratos, L3Harris, AeroVironment, Teledyne Technologies, Karman

SPACE
L3Harris, Lockheed Martin, Raytheon Technologies, Northrop Grumman, Karman, Rocket Lab

CYBER
CACI, Raytheon Technologies, L3Harris, Leonardo DRS, Lockheed Martin, Northrop Grumman

DEFENSE TECHNOLOGIES & SENSORS
Teledyne Technologies, Lockheed Martin, L3Harris, Karman, Leonardo DRS, Raytheon Technologies, Northrop Grumman

NUCLEAR & SUBMARINES
BWXT, General Dynamics, HII

SHIPBUILDING
General Dynamics, HII

COMBAT/GROUND SYSTEMS
Northrop Grumman, Karman, Rheinmetall, Leonardo DRS, Lockheed Martin

GOVERNMENT SERVICES
SAIC, Booz | Allen | Hamilton, L3Harris, CACI, leidos

MUNITIONS
Rheinmetall, General Dynamics, Northrop Grumman

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