

## CURRENT ISSUES









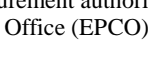
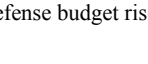
### No. 36: A Contracts-Based Survey of Developments in Japan's Defense Industry (10/28/13)

Japan is seeking to pull itself from an 11-year decline in defense spending with significant budget increases, including its largest year-over-year increase in over two decades.<sup>1</sup> As scholars and analysts parse the implications of the budget trajectory for the future of Japan and the security environment in Asia, it is timely to assess the country's defense industrial base. This paper surveys the structure of Japan's top defense contractors to demonstrate how the industry can support Japan's attempt to emerge from a decade-long drawdown in its defense budget.

#### Contractor consistency belies diversity in industry, low defense sales as share of total revenue

Analysis of the top 10 Japanese defense contractors shows several important changes in the country's defense industry over the latter half of the drawdown.

**Figure 1: Top 10 Defense Contractors in Japan and Total Contract Award Amounts (in billions Yen)**

Contractor	2006	Trend	2012
Mitsubishi Heavy Industries	277.6		240.3
Kawasaki Heavy Industries	130.6		148.0
Mitsubishi Electric	117.7		124.0
Nippon Electric Company (NEC)	83.1		163.2
Fujitsu	44.1		30.0
Toshiba	42.3		50.3
IHI	36.5		27.7
Komatsu	36.3		26.7
JX Nippon Oil and Energy Corp	14.3		24.4
Hitachi	19.4		21.9

Source: CSIS analysis of data from collected annual reports of the Japanese Ministry of Defense and its procurement authority, the Equipment Procurement and Construction Office (EPCO).

<sup>1</sup> Takenaka, Kiyoshi, "Japan seeks biggest defense budget rise in 22 years," *Reuters*, August 30, 2013.

Figure 1 outlines Japan's top 10 defense contractors by share of MOD contract awards. As the figure illustrates, the makeup of Japan's defense industry remained consistent over this study's period, 2006-2012.

On its surface, consistency in the makeup of the Japanese defense industry is not entirely different from defense markets in other advanced nations. In the United States, six large contractors dominate the defense industry with similarly consistent annual sales to the U.S. Department of Defense.<sup>2</sup> The UK does most of its business with four big contractors. This consistency allows defense customers to access products and services from providers with a record of meeting their specific needs.

Beyond the consistency of Japan's dominant players, the data reveal two additional observations about Japan's defense industry.

First, the award amounts received by each company are only a small percentage of its annual revenues. The 240 billion yen (est. 2.4 billion USD) awarded to Mitsubishi Heavy Industries (MHI) in 2012 comprised only 8.5 percent of the company's revenue that year. With the exception of NEC, which received an average of 28.7 percent of its revenue through defense contracts during the study period, the share of contracts in annual revenues among the remaining top 10 contractors ranged from 0.2 percent to 11.4 percent in 2012.

The companies in Figure 1 are also interesting because they represent a variety of industry verticals. In contrast with the mostly defense-focused companies that dominate the U.S. defense industry, core business areas vary widely among Japan's top 10 defense contractors. Big, expensive aircraft and naval vessel contracts drive several heavy industries toward the top. Electronics and telecoms providers such as Mitsubishi Electric and NEC also show that smaller contracts can amount to big revenues. Importantly, the top three contractors are part of two conglomerates—Mitsubishi Group and Kawasaki Heavy—which have a strong presence in commercial

<sup>2</sup> See: Berteau, David et al., "U.S. Department of Defense Contract Spending and the Supporting Industrial Base," *Center for Strategic Studies*, September 2012. Available at <http://csis.org/publication/us-department-defense-contract-spending-and-supporting-industrial-base>.

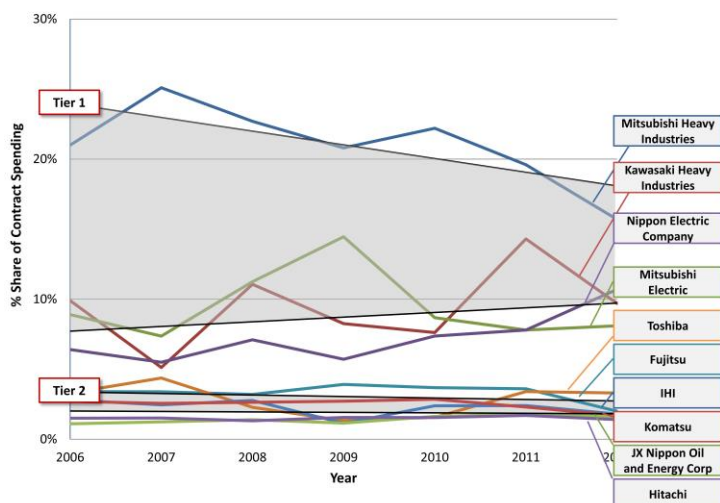


business. The Mitsubishi contractors are autonomous subsidiaries of the same parent holdings group.

### Tiers in Japanese defense industry becoming more pronounced

The data show that Japan's defense industry has come to resemble the U.S. defense industry in other ways. Namely, as Figure 2 illustrates, Japan's top contractors are beginning to segment into distinct tiers of providers.

**Figure 2: Contract Awards for Top 10 Contractors as Percentage of Total MOD Contract Spending, 2006-2012**



Source: CSIS analysis of data from collected annual reports of the Japanese Ministry of Defense and its procurement authority, the Equipment Procurement and Construction Office (EPCO).

In the period 2006-2012, Japan's top four defense contractors collectively captured between 43.1 percent and 52.1 percent of the MOD's total procurement contract obligations in each year. By comparison, the next six contractors captured only 16.1 percent of annual contract funds on average over the study period. Contractors not in the top 10 mostly fell below a one-percent share of total obligations.

Figure 2 also illustrates that the top four contractors are more closely sharing the MOD's contract funds. The difference between the top contractor's share of contract obligations and the average shares of the next three contractors narrowed from a peak of 19.1 percent in 2007 to 6.7 percent in 2012. That gap is similarly narrowing between the upper and lower ranges of tier two contractors, although from a much smaller starting point.

While the top four and next six contractors have formed distinct tiers, their contract awards comprised only 56.0 percent of the MOD's total awards in 2012.<sup>3</sup> This suggests that below tiers one and two, there is a large

universe of many providers receiving a much smaller percentage of MOD contract obligations.<sup>4</sup>

### Additional research on Japan's defense spending would enable industrial policy planning

This survey of Japan's top defense contractors shows diversity in Japan's defense industrial base, as well as the development of clear tiers of defense providers. Additionally, strong non-defense revenue streams among top-tier providers of large materiel suggest large vendors would be able to meet MOD manufacturing and technology capability requirements quickly, and to weather inevitable ups-and-downs in the defense market.

The second-tier providers and vendors that fall below them only draw a small portion of business from defense spending. This mitigates some of the risk associated with dedicated lower tiers, such as susceptibility to budget cuts and volatility in annual revenues; however, it also means weaker relationships with the customer and limitations defense-specific technology development. These providers may be more equipped to provide dual-use goods reconfigured for military specifications.

This analysis provides important insight into the structure of Japan's defense industrial base. Additional research in the public domain would enable Japan to take advantage of subject matter expertise from academic thought-leaders and planners in partner defense offices abroad. EPCO's datasets are notable for their transparency and breadth, but additional research efforts will require deeper data. For example, a breakdown of contracts by categories (i.e. R&D, Military Construction, etc.) would assist research on the extent to which defense spending is positioning Japan's defense contractors to meet future requirements.

Above all, additional data in the public domain would help Japan ensure that its defense spending is supporting a robust, competitive national security industry. By knowing which obligations are going where, defense planners in Tokyo could equip themselves to make contract decisions with a closer eye to future challenges to the country's security. They will be more able to intuit gaps in industrial capabilities and make more informed contract decisions to prevent those gaps from emerging. This is an important next-step in the evolution of Japan's defense industrial base.

—Joshua Archer

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<sup>3</sup> This situation is similar to the U.S. example, in which so-called small and medium vendors received 40 percent of DoD contract dollars awarded in 2012. Source: CSIS analysis of FPDS data.

<sup>4</sup> Data are available to the twentieth largest recipient of contract awards, but only the top 10 are included in this high-level review. The contractors fall below one-percent shares at rank 14, where Daikin Industries captures 0.9 percent of contract awards.