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## *The Slow Death of Japanese Techno-Nationalism? Comparative Lessons for China's Future Defense Production*

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### Summary

Japan's defense production model is often seen as a successful exemplar of "techno-nationalism," especially in the integration of the civilian and military sectors. Hence, Japan's model has been considered as offering possible lessons for China to emulate in the reform of its own defense industry. But Japan's defense production model, despite arguable past successes, is now experiencing what is often referred to by Japanese policymakers and industrialists as a "slow death" as its structural development limitations have been increasingly revealed over the past two decades. Japan's defense production model is encountering three major structural limitations:

1. Stagnation in defense budgets and long-term military demand.
2. Flawed and failing procurement practices.
3. Obstacles to expanded and more diverse international collaboration.

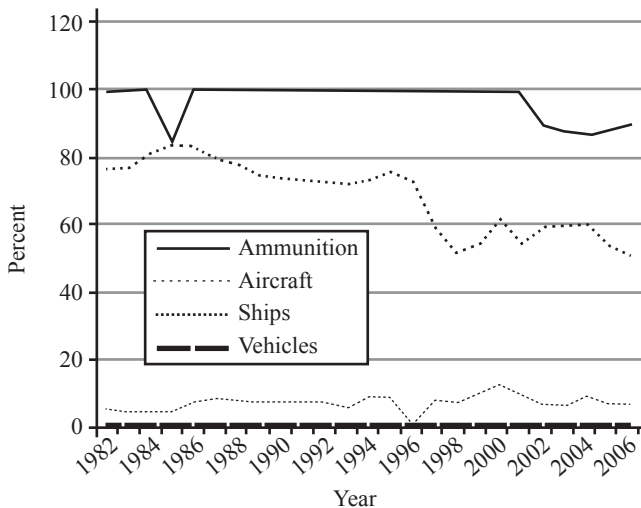
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## JAPAN'S TECHNO-NATIONALISM AND DEFENSE PRODUCTION SYSTEM

Japan since the Meiji era has pursued a tradition of seeking to maximize military technological autonomy in order to maximize national strategic autonomy as part of an overall grand strategy. A key and constant feature of this drive for autonomous defense production has been to promote indigenous production in tandem with the integration, where possible, of civilian and military defense production. In the post-war period, Japan rebuilt its defense sector through policies of indigenization (*kokusanka*) and the embedding of military production within larger civilian conglomerates and reliance on technological “spin-on” and “spin-off.” Japan’s largest civilian conglomerates typically derive no more than ten percent of their total sales from defense contracting, and defense production in general does not loom large in overall industrial strength (Figure 1), although there are some exceptions in shipbuilding and electronics, and there are a large number of small and medium enterprises (SME) involved in defense subcontracting, either with specialist manufacturing

**Figure 1.** Defense production by sector as a percent of total industrial production



Source: *Bōei Nenkan*, various years.

techniques or in plain metal-bashing, which are more heavily reliant on defense.

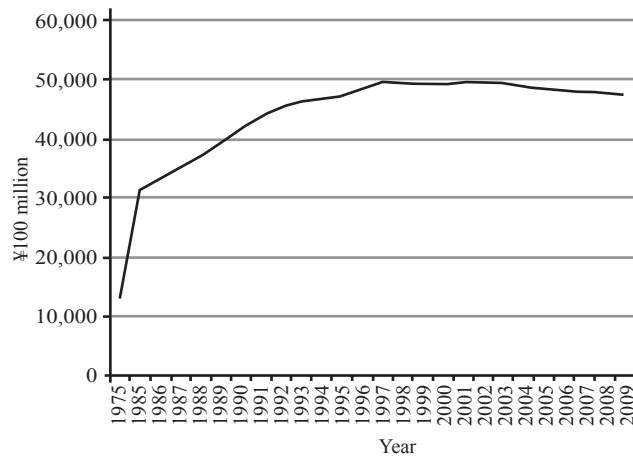
Up until the end of the Cold War, Japan developed a defense production system involving close government and private sector collaboration, with careful government nurturing of prime contractors for weapons platforms and work shares for subcontractors. This rather cozy system enabled the Japan Self-Defense Forces (JSDF) and civilian contractors to maintain footholds in key military technologies, and gave them the potential to further develop and expand production runs of advanced weapons platforms in times of national emergency. However, because of the protection of producers and low production runs, the system also came at the cost of highly inflated unit prices and development of equipment that was not always internationally competitive in combat performance.

## JAPAN'S DEFENSE PRODUCTION SYSTEM ON THE RACK?

Japan’s defense production system worked relatively well in safeguarding a system of indigenous production during the Cold War because of the government’s willingness and capacity to pay the high associated financial costs, and because of the relatively slow pace of weapons platform development. Since the end of the Cold War, Japan’s declining economy and changes in the globalization of the defense industry have created challenges to the continued sustainability of the indigenous production model.

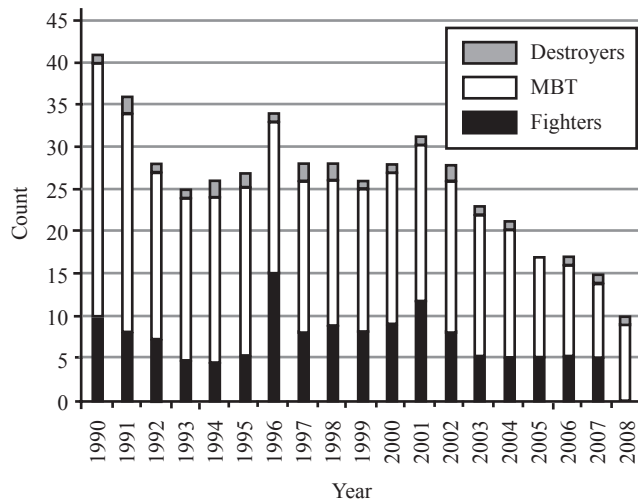
Japan’s official defense budget has remained largely static, and even declined slightly, since the late 1990s (Figure 2). Crucially, the share of the defense budget for equipment procurement has declined (Figure 3), and new *kokusanka* projects in transport and patrol aircraft, and surveillance satellites, can only partially take up the slack. JSDF orders for key weapons platforms are falling, and in the case of fighter aircraft, there is the risk of no new build work after the completion of the F-2 program, meaning Japan could lose much of its capacity in this area (Figure 4).

**Figure 2.** Japan's defense expenditures



Source: *Bōei Hakusho*, various years.

**Figure 3.** Percent of defense budget for equipment

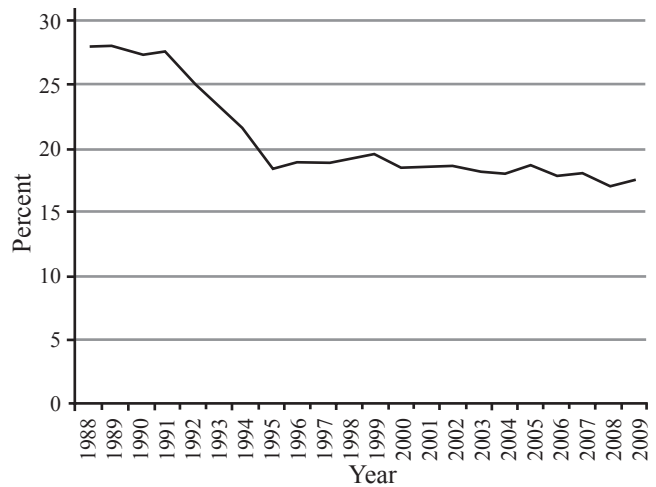


Source: *Bōei Hakusho*, various years.

Japan's traditional procurement methods have led to exorbitant unit prices and in some cases a form of structural collusion and corruption. Recent scandals have pressed the need for radical reform, but the process of implementation has been slow and seemingly ineffective thus far.

The Japanese defense industry is largely precluded from the potential benefits of international collaboration. Due to its self-imposed ban on the

**Figure 4.** Platform procurement, 1990–2008



Source: *Bōei Hakusho*, various years.

export of military technology, Japan is excluded from the economies of scale for the development of ever more costly weapons platforms. Japan's government and industry are looking to increase bilateral development projects with the United States, most notably in Ballistic Missile Defense interceptors. Nevertheless, these projects are also viewed as risk-laden, as suspicions are that the United States may not pass on leading-edge technologies and that Japan may be demoted to the role of a subcontractor on lesser technologies for the United States. Japan is reconsidering and eroding its arms export ban, but as yet this process is slow, and perhaps too slow to halt the decline in the domestic defense industry.

The Japanese defense industry feels itself to have descended into a crisis situation. SMEs dependent on defense have either folded or look to diversify and exit the sector. Larger conglomerates are investing less in defense production. In some senses, Japan's defense production model of civilian–military integration is now a disadvantage, as the fact that it is scattered in small pockets across large civilian firms means that consolidation is difficult. This also allows for the exit of individual firms from military production to concentrate on their core civilian business, something the Japanese government would like to avoid.

The greatest anxiety for Japan's government is that not just footholds, but even toeholds of

competency will be lost in advanced weapons platforms. In turn, the implication is that any loss of military technological autonomy will undercut national strategic autonomy.

## RECOMMENDATIONS

1. China will surely at some point face budgetary pressures similar to Japan. If China intends to maintain a techno-nationalist stance, it will need to select and prioritize key military technologies to be nurtured long term much earlier than Japan did.
2. Japan's model is extremely expensive, which means that any attempt to emulate it will require constant attention to controlling costs and the reform of procurement practices.
3. Japan is highly disadvantaged in pure commercial terms in the degree of international

collaboration possible as compared to China. Nevertheless, even though it is aware of the risks of cooperation with international partners, China will find it hard to avoid technological dependency on others in its efforts to play catch-up in defense production.

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