



**S. RAJARATNAM SCHOOL
OF INTERNATIONAL STUDIES**
A Graduate School of Nanyang Technological University

RSIS COMMENTARIES

RSIS Commentaries are intended to provide timely and, where appropriate, policy relevant background and analysis of contemporary developments. The views of the authors are their own and do not represent the official position of the S.Rajaratnam School of International Studies, NTU. These commentaries may be reproduced electronically or in print with prior permission from RSIS. Due recognition must be given to the author or authors and RSIS. Please email: RSISPublication@ntu.edu.sg or call 6790 6982 to speak to the Editor RSIS Commentaries, Yang Razali Kassim.

Japan's Defence Industry on the Brink

Richard A. Bitzinger

31 May 2010

Japan's policy of kokusanka, or self-reliance in arms production, is under increasing assault from economic and technological realities. The country must make hard choices about which sectors to preserve and protect, and which ones to let go.

EVER SINCE Japan began to rearm, following its defeat in World War II, it has always pursued *kokusanka*, or self-reliance, in arms manufacturing. The "indigenisation" of defence production was national policy, pursued in a public-private partnership between the state and industry. By the turn of the century, Japan was building its own locally-designed tanks, armoured vehicles, warships, submarines, and missile systems. Where it was forced to import, often because the cost of indigenous development was too high, Tokyo secured licences to manufacture these weapons in Japan.

Now, the structural defects of this cozy system, together with over a decade of stagnation and neglect in the defence budget, are taking its toll on the *kokusanka* concept. Simply put, this ambitious model is increasingly unsustainable at current levels of funding.

Slow Implosion of Japanese Defence Industry

A 2009 study by Japan's Ministry of Defence showed that 13 companies that used to manufacture equipment or components for the Ground Self-Defence Force (GSDF) have gone bankrupt since 2003. A further 35 firms working for the GSDF have simply exited the defence business. In addition, 20 other companies engaged as subcontractors to the country's fighter jet industry have either withdrawn from this business or plan to do so. One of these firms is Sumitomo Electric, the country's sole producer of nosecones for Japanese fighter aircraft.

The country has already largely jettisoned its dream of becoming totally self-sufficient in combat aircraft. Its once-vaunted F-2 fighter, a heavily modified version of the US F-16, is an economic and technological shambles, and Tokyo has since gone back to trying to buy a foreign fighter jet off-the-

shelf. Japan's highly publicised ATD-X "fifth-generation fighter," currently in development, is only a research prototype and will likely never be put into production.

Defence Industry's Dilemma: Ambition vs. Resources

Japan's defence industrial base is being hammered on several fronts. In the first place, defence resources have long been tight and getting tighter. Not only have military expenditures been declining for at least a decade – from 4939.2 billion yen in 2002 to 4700.8 billion yen (US\$50.4 billion or S\$70 billion) this year – but the share of the defence budget going to arms procurement has fallen more than a quarter over the same timeframe. In 2010, only 17.5 percent of all defence-related expenditures went to buying equipment, along with only 2.5 percent for research and development (R&D).

At the same time, more and more demands are being placed on this shrinking procurement budget. In 2003, for example, Tokyo decided to build a multi-tiered missile defence system to protect the country from North Korean missile attacks, for a total cost of at least one trillion yen (US\$10 billion). Since the overall equipment budget did not go up to take into account this new requirement, funds have had to be siphoned away from elsewhere, such as armoured vehicles and fighter aircraft.

As the production of defence items has been cut back, stretched out, delayed, or simply cancelled, the cost of local arms manufacturing has increased to almost ridiculous proportions. Japan makes some of the most expensive weapons in the world. For example, the country's indigenous F-2 fighter jet has a price tag of least US\$120 million apiece, or more than two times that of the F-16 upon which it is based. Escalating expenses caused the Japanese to cut total F-2 production from 141 planes to only 94 – which only increased its unit cost more.

Finally, because of Japan's strict ban on arms exports, local defence firms cannot compensate for declining procurement at home by flogging their wares on the international arms market. The ban is so strict that Tokyo needed to make a special exemption for Japanese companies to partner with their US counterparts on missile defence R&D.

End of *Kokusanka*?

Yukari Kubota, writing in a March 2010 commentary published by the Association of Japanese Institutes of Strategic Studies (AJISS), argued that Japan's

“traditional defence business model, in which the government relies on a contractor for R&D and production while the contractor recovers its prior investment through mass production in the close public-private relationship, is no longer functioning well”.

“No longer functioning well” is putting it mildly. Today, Japan's defence industry faces a “Sophie's choice” of which sectors to let go. Some segments, such as shipbuilding or aerospace, are fortunate enough to be embedded in heavily civilian industries and are therefore sheltered to an extent. Japan's aircraft industry has made particularly impressive progress in “civilianising” itself, and in 2007 commercial work in the aviation sector outstripped defence production for the first time. In fact, since the 1990s, military contracting has fallen from more than 80 percent of all Japanese aircraft industry output to around 40 percent today. In addition, the bulk of this commercial work is exported, usually in the form of subcontracting to Boeing and Airbus on such passenger jets as the B-787 and the A380. Consequently, Japan's aerospace business is becoming increasingly globalised.

Other sectors – armoured vehicles, submarines, missiles, etc. – are not so fortunate as to be co-located within commercial industries, however. There is simply no room for a business that manufactures maybe five to ten tanks a year – and at a cost nearly double that of any other comparable system.

When it comes to the future of the national arms industry, Japan's toughest hurdle is ultimately a political one. Scaling back on the range of weapons produced means abandoning the country's long-standing policy of *kokusanka* – a bitter pill to swallow. But it is even more unlikely that Tokyo – especially the new government led by the Democratic Party of Japan – would reconsider lifting the arms export ban or raise the defence budget beyond the traditional (if unofficial) limit of one percent of GDP.

To a certain extent, the decision is already being made for the government: industry is “voting with its feet” by exiting the defence industry. The question is, how many more firms have to leave the business before Tokyo decides to take decisive action?

Richard A. Bitzinger is Senior Fellow with the Military Transformations Programme at the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University. Formerly with the RAND Corp. and the Defence Budget Project, he has been writing on aerospace and defence issues for more than 20 years.