introduction

INTRODUCTION:

THE business OF defence

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Ian is author of several books, including *Australian Political Parties in Transition?* (2006), *Into the Future: The Neglect of the Long-Term in Australian Politics* (with David Yencken) (2005), and *Beyond the Two-Party System: Political Representation, Economic Competitiveness and Australian Politics* (1995).

In this collection of papers the authors argue that Australia's defence industry strategy is at a turning point. As the Defence Minister Dr Brendan Nelson has himself recently declared, "... we are now embarked on a review of defence industry policy ... and the reason for doing it is that the government clearly has objectives as far as defence expenditure is concerned … government … (should) not … confuse domestic presence with indigenous capability … government (can) use its … defence procurement … to ensure that we support particular activities we think are important in defence industry in Australia."

However much they may otherwise differ, all the contributors to this study share the view that a review of policy is timely.

PHOTO: AUSTRALIAN GOVERNMENT DEPARTMENT OF DEFENCE

There are three primary reasons. The first results from the globalisation of the industry structure. Much future procurement will involve Australian firms as sub-contractors to the global supply chains of major offshore primes. This new pattern of relationships poses a host of collaborative, technical and distance challenges for Australian firms.

The second reason to develop a new approach arises from the unique character of the defence industry. Government is the sole buyer. In the interests of national sovereignty it needs to preserve local capabilities at least sufficient to sustain through life support and repair in times of war. But this is no easy task. Sub-contract relationships to offshore primes reduce its degrees of freedom in developing an industry structure to its own taste. Further, technological and other uncertainties remain large and can evolve significantly through the life of a project. At the least, these latter considerations increase the pressure on government to be clear about what it wants. It also invites government to play a more active role in the development of collaborative capabilities at the firm level and to develop new forms of linkage with its industry partners.

Third, uncertainty surrounds Australia's geopolitical outlook, yet procurements involve long-term dec-isions. The key issue here concerns the extent to which Australian forces will operate in conjunction with those of major allies or semi-independently in more localised conflicts.

While there are differences of emphasis and perspective between the papers, there is general agreement that the response requires more investment in the conception or strategic phase of projects, closer links between the services and industry specialists in the development of equipment requirements, and more transparency. In addition, alliance contracting and other novel approaches are likely to become more prominent in the relationship between government and its suppliers in delivery phases. These are a response to technological developments and other uncertainties, such as bidding for work with international primes. But these organisational developments need to be associated with acceptance of a more directly catalytic role by government and more transparency in relationships.

The UK Defence White Paper: A model for Australia

In general, for its clarity about challenges, about the capabilities required to sustain national sovereignty and for its detailed attention to organisational and institutional issues, the United Kingdom's (UK's) recently produced *Defence Industrial Strategy: Defence White Paper*, presents a model for what is required, in another key, for Australia.[1]

Brief outlines of the nine chapters within this report follow.

Aligning defence and industry strategy

Paul Dibb introduces the collection with a call for a much closer alignment between defence strategy and defence industry. He cites the recently introduced UK White Paper as a model for Australia. Dibb reviews the history of past efforts to better link defence and industry. The most recent framing envisages the identification of industry capabilities that are essential to achieving through-life support, combat repair capabilities, and desired levels of national sovereignty. This was to avoid the boom and bust environment associated with project-by-project acquisitions.

This policy was designed to vary the relationship between suppliers and purchasers towards one in which the sustainability of key industry capabilities would be the primary consideration. Open competition would occur only in this context. Despite repeated statements of intent, the Australian defence establishment has mostly failed to realise this outcome. The only notable exception is the Defence Electronic Systems Sector Plan. Further, the Defence Capability Plan 2001–2010 was intended to be associated with a more open climate of information exchange. This was realised in 2002 and again in 2004 when comprehensive revisions were published. But thereafter "Defence's enthusiasm for publishing such detailed information seems to have gone". This is despite the fact that there have been significant changes in procurement.

Dibb concludes that Defence does not accept that its dominant purchasing power can and should shape the industry. This is by contrast with the UK approach where this framing is whole heartedly embraced. Dibb proposes an similar approach for Australia and concludes with a detailed discussion of the required steps.

Procurement

In the second paper, former Defence Chief **Chris Barrie** discusses the environment surrounding defence procurement and recommends steps to strengthen present arrangements. Noting the impact of Australia's ageing population, he repeats his call for wider discussion of a new scheme of national service. Given the shrinking of the relevant age cohort, an all-volunteer military is, in Barrie's view, hardly likely to be tenable. But a viable military force is essential for Australia's security. To gain public recognition of the stakes, the issue must be publicly identified and there must be debate about how adequate numbers can be sustained.

Turning to procurement, he notes that Defence created a new National Support Division in 1997 to strengthen its links with industry. He discusses the various factors that should shape this relationship. So far as investment in industry is concerned, he endorses Dibb's call for a fresh approach based on the identification of essential industry capabilities. He also notes the savings that have accrued from a much more extensive use of private sector contracting. The scope for reducing waste nevertheless continues. Further, with improved cooperation between suppliers and the department, it should be possible to reduce the lead times for major items of capital equipment from the present 10 to 15 years to eight years. But to accomplish this, the current stop–start procurement model needs to be replaced by a closer, alliance relationship between Defence and its suppliers. This is reinforced by developments in technology.

Barrie also discusses the size of national stockpiles and, as noted at the outset, emerging problems concerning the recruitment and retention of skilled personnel, not only in the Services but also in industry. He recommends a complete separation between the Defence Materiel Organisation (DMO) and the Department and concludes, like Dibb, with a call for a new statement of government policy along the lines of the UK White Paper.

Innovation

Richard Brabin-Smith turns to the priorities for defence innovation in Australia. There are four broad circumstances where Australia needs to conduct indigenous defence research and development.

First, Australia's unique maritime and land environment means that critical needs will not always be met by other defence equipment suppliers. Second, there will be compelling national security considerations such as technology support to counter-terrorism. Third, even Australia's closest allies will not always share with us defence information that they regard as too sensitive. Fourth, new ideas can emerge with compelling potential benefits.

Brabin-Smith also describes the role and achievements of the Defence Science and Technology Organisation (DSTO). For the future, he anticipates that Australia's specific geographic needs will continue to drive a need for research and innovation. Further, global industry consolidation might narrow options unacceptably from the perspective of Australia's own priority needs. Participation in joint projects led by overseas partners could well expand to fill this gap. Finally, Brabin-Smith calls for further cultural change: greater national recognition of the importance of science; greater willingness in defence industry to seize opportunities for innovation; and less reluctance within Defence to embrace local innovation.

Competition

In the fourth paper, **Mark Thomson** reviews the role of competition in Australian defence procurement. Australia's strategic defence industry requirements are usually expressed as the in-country capability to repair, maintain and modify Australian Defence Force (ADF) equipment. These imperatives justified government ownership of most of Australia's defence industrial assets until 1986 when the government commercialised its assets and introduced competition for major projects. In tandem with this, the Australian Industry Involvement (AII) was introduced to develop strategically important local industry capabilities and to maximise local content consistent with achieving value for money.

However, in practice, the AII program served economic rather than strategic imperatives. Although some through-life support capabilities accrued for the ADF, local content was also given implicit preference as an end in itself. In 2001, former defence minister Peter Reith proposed a new "strategic approach", aiming to move away from a project-by-project approach and towards longer term multi-project partnerships between defence and selected firms via "open book" alliance contracting. Progress in implementing this scheme has been somewhat limited, except in the case of the $6 billion Air Warfare Destroyer project. Thomson concludes by recommending that the government sort out the strategic capabilities it needs to keep in-country and then use open competition on the global market for the remainder.

Valuing defence

Stefan Markowski and **Peter Hall** also consider how the value of the defence industries might be estimated. They outline an economic framework for assessing the benefits of in-country defence industries. The "defence value-adding chain" is made up of the value and cost of defence-related capabilities; defence material imports and domestic industry supplies; and the interface between the Australian Defence Organisation and the upstream suppliers of goods, consumables and services in the defence industries. In theory, the value of the end product of the defence value-adding process – national security provision – should determine that of intermediate outputs and capabilities of upstream suppliers. However, since the true social value of national security cannot be assessed in peacetime, judgment is unavoidable.

Markowski and Hall then discuss the distinctive nature of the defence industry, paying particular attention to ownership and competitive issues. To be internationally competitive, they argue for specialisation in niche products. They are critical of policy justifications such as job creation and technology transfer, which are too frequently invoked as a rationale for defence industry protection. For example, in the case of technology, the best way to accelerate technological change in civil industry is to target the civil industry directly. But they also recognise that the valuation of the benefit of defence capabilities presents many technical and practical challenges. To the extent that it reflects judgments about the value of national defence, subjective elements are unavoidable. The judgement involves an assessment of the most efficient way of achieving security objectives, and the potential for domestic suppliers to deliver products and services. Established industry interests may seek to influence these judgments and political considerations may affect defence strategic analysis. The only counter to such pressures is transparency in decision making and accountability throughout procurement processes. If government is to support domestic defence industries, it should be strictly based on strategic defence considerations only.

Industry structure

Bob Wylie then provides a detailed account of the role and structure of Australia's defence-related industries. He focuses on six major procurement areas to illustrate the links between local firms, their business activities, and the military capabilities they supply and support. These procurement areas comprise non-combat support, defence information capability, naval ships, boats and submarines, army land-based manoeuvre, defence munitions, and military aviation. In each area, he reviews current and prospective workload, the major suppliers and the links between local and international firms.

Wylie argues that a robust defence industry broadens the military options open to Australian government in pursuing strategic objectives. But he also notes that, to remain strategically relevant, local defence industry must adapt to the new complexities in procurement, including the impact of increasingly complex and knowledge-intensive systems. Learning by doing, learning by using, and learning through the interaction of users and producers are now all critical to industry's capacity to supply the complex platforms and systems that Defence needs, and to support its preparedness. Further, procurement of knowledge-intensive systems is shifting industry focus increasingly to services. Effective support of such systems often requires close geographic and functional proximity between the customer and local service suppliers. In a context in which Australian procurement is closely linked to international suppliers, this creates a compelling rationale for continuing to foster the capacity of local industry to provide such support.

Case Study 1: The Joint Strike Fighter

In the first of two case studies of procurement, **Christopher Wright** examines the impact of the Joint Strike Fighter (JSF) program on the Australian defence industry. He reviews the prospects for the sector should the procurement approach adopted for JSF be applied broadly across future defence acquisitions. The JSF involves local consortia seeking to qualify for Lockheed Martin's global supply chain. Via a (nominally) competitive process, Australian companies are being considered as tier 3 suppliers.

Wright suggests that, in a complex technological environment, companies that have a clear focus and that offer discrete products or services are best positioned to succeed. Moreover, in some aspects, smaller companies may find themselves in a more advantageous position for through-life support. As the JSF program moves into the production phase, companies that are able to maintain their cost, schedule and quality performance and to offer complete packages competitively may be the base for sustainable industry capability in Australia. These companies are unlikely to be the larger primes that have traditionally dominated Australian defence industry.

Wright predicts that the JSF has the potential to significantly affect the worldwide defence industry. He notes that AII and its forebears have no place in this approach. Significant structural adjustment will follow the JSF approach. The burden of this will fall mainly on the larger primes. The decision as to what capabilities remain will be market driven, not government prescribed. The JSF approach favours a market mechanism, not government intervention, as the instrument of choice. This approach will complicate any alignment between defence strategy and industry capability. To the extent the JSF model prevails, the shape and structure of the industry will depend on the management decisions of US companies further up the value chain. The US defence industries' own traditions are an additional complicating factor. Historically its culture has strongly preferred domestic suppliers to those offshore.

Case Study 2: The Air Warfare Destroyer

In the second case study, **Derek Woolner** examines procurement of the Air Warfare Destroyer (AWD) project, the most complex naval surface vessel project ever attempted in Australia. He argues that the problems associated with past acquisitions mostly reflect decisions made (or not made) early in the project, well before the contractual phase. The Collins submarine provided a classic example.

Successful procurement requires broadly a three-step process:

1. A pre-contract strategic phase evaluating geopolitical, technical and production issues
2. A contract phase, when the detailed specifications and the relationship between purchaser and providers are considered
3. A project management phase.

The AWD project illustrates these latter requirements. This project will be managed under the alliance contract model that provides incentives for the contractor to save on cost, but requires transparency both between the purchaser and contractors and between individual contractors, who might often have directly conflicting interests. The critical risk factor for the AWD project is the air warfare system, for which the US navy's Aegis system has been preferred. In selecting Aegis, the government has avoided the risk of a new or unproven system. Woolner also applauds the choice of shipbuilder ASC because of its experience in testing unique designs and developing through-life support arrangements, and its strong links with a US builder.

Nevertheless, problems might be expected from the integration of the Aegis system with others of the vessels' systems. Aegis requires a large displacement vessel. It also requires commensurate crew numbers. Yet for a decade, the Royal Australian Navy (RAN) has suffered personnel recruitment and retention difficulties; hence, the RAN requires a crew significantly smaller than any similar vessel. This will demand significant work on ship automation and management systems, and complex integration of sensors, command and weapons – historically, such work has caused problems.

These risks have been recognised in the appointment of the AWD Principal's Council to represent the interests of the major parties. Woolner concludes that this role should be extended. Alliance contracting requires a mechanism to retain a broad program focus, and to allow alteration of alliance arrangements if necessary. The Principal's Council should consider extending its role or reporting to a new type of supervisory agency.

Defence politics

In the final paper, **Geoffrey Barker** looks at the interplay of economics and politics in major procurement decisions. First he reviews the structure of Australia's defence industry and its special relationship to the federal government. While the profitability of defence industry is broadly in line with that of the general manufacturing and services industries, the industry overall is not particularly robust in terms of its ability to meet future defence needs. The monopsony position of the government requires a fine balance between efficiency and the political interest in a sustainable and healthy industry. Barker agrees with the government's view that a profitable and capable defence industry is imperative for Australia's self-reliance, but he wonders if current strategic policies, such as the government's Defence Capability Plan, will achieve this. Defence's four current sector plans (aerospace, electronics, shipbuilding and land) are inadequate.

Barker then reviews acquisition arrangements since the 2003 Kinnaird review and the establishment of the DMO as a semi-independent executive agency within the Defence Department. He believes that the Kinnaird review proposed a rational, market-like and outcome-driven framework for the management of acquisition projects. Its centre piece was a "two-pass" system for defence procurement: the first stage involving the analysis of options to meet an identified capability need and the second pass being the assessment of the supplier options followed by government approval for tender and contracting. This was fine in theory – but it has been breached in practice. For example, on the JSF project, only a limited process of comparing and evaluating alternative options was undertaken. The acquisition was decisively influenced by Australia's strategic alliance with the US. The purchase of naval combat systems further illustrated the role of alliance relations, the desire for maximum interoperability and the imperative of access to fast-evolving US military technology. Economic competitiveness had to be weighed against these other factors. Barker concludes that politics is unavoidable. A competitive/comparative analysis of major procurements is the ideal, but it is an unattainable one.

A new policy framework

Together these papers provide a comprehensive overview of the circumstances that confront, and the outlook for, Australia's industry support capabilities. There is substantial agreement between them on the general factors that are shaping the defence procurement and industry environment, but there are also significant differences of emphasis and interpretation.

Three factors would seem to be primary in the development of a policy framework.

First, the government's own geo-strategic determinations will prescribe likely scenarios around which general defence capabilities need to develop. There are naturally many uncertainties here, not least the emphasis between neighbourhood, regional and alliance responsibilities.

Second, these general capabilities will be the foundation for the identification of specific strategic capabilities that need to be developed in local industry to ensure through-life support of equipment and repair of critical components in times of conflict. Many factors, not least technology, create an array of options here.

Third, the capacity of local suppliers to successfully enter the supply chains of global primes will also be an important factor in determining levels of local defence industry activity. In this latter area, government can play a facilitating role, but unlike in the past, market forces will be primary.

A new policy framework needs to reconcile and balance considerations such as these – considerations that are not readily consistent and also substantively problematic.

ENDNOTE

1 UK Ministry of Defence 2005, *Defence Industrial Strategy: Defence White Paper* (CM 6697) http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/PolicyStrategy/DefenceIndustrialStrategyDefenceWhitePapercm6697.htm