

# Defence Procurement and Industry Policy

A small country perspective

*Edited by*

**Stefan Markowski, Peter Hall  
and Robert Wylie**



Routledge Studies in Defence and Peace Economics

# Defence Procurement and Industry Policy

Arms purchases are among the most expensive, technologically challenging and politically controversial decisions made by modern-day governments. Superpower spending on weapons systems is widely analysed and discussed but defence procurement in smaller industrial countries involves different issues which receive less attention. This volume presents a general framework for understanding smaller country defence procurement supported by country, industry and project studies.

Part I provides a general framework for analysing smaller country defence procurement, focusing on the formation of national defence capabilities. The framework is then used to analyse issues around the development of procurement demand, the characteristics of defence industry supply, contracts and relationships between buyers and sellers, and government policy for defence procurement and industry development. Part II focuses on defence procurement in seven smaller industrial nations with widely varying historical and political settings (Australia, Canada, Israel, Singapore, Spain, Sweden and The Netherlands). Part III consists of two Australian case studies of the procurement issues raised in, respectively, the naval shipbuilding industry and a major, complex defence project.

The book addresses the needs of public and private sector managers, military planners, procurement specialists, industry policy-makers, and defence procurement and industry educators. It presents general principles in an accessible manner and points to real-world experience to illustrate the principles at work. Therefore, it will be of interest to scholars and practitioners in defence economics, strategic procurement, public sector procurement, and defence industry policy.

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A small country perspective

**Edited by  
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Robert Wylie**

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# Preface

The concept of this book has evolved with our interest in defence procurement and industry policy going back to the mid-1990s. What has emerged is a volume that aims to introduce defence practitioners to concepts and tools used by defence economists and expose academic economists to the challenges faced by contemporary defence procurement and industry practitioners. Although the book focuses specifically on defence issues, much of it has a broader applicability and should be of interest to anyone involved in procurement in large organisations, particularly in government departments. While most of the countries in the world can be regarded as small or at most mid-sized in terms of defence procurement, there is a paucity of literature in this area that adopts the small country perspective. Being based in Australia, we have come to believe that decision-makers in small countries face more acute economic choices than those in the larger powers and have less room for mistakes. The issues in such countries deserve, we feel, special treatment.

The book is divided into three parts. Part I provides a general overview of issues involved in defence procurement and industry policy making by smaller military powers. Part II contains a selection of national case studies mostly written by external contributors. Part III comprises two industry studies to highlight particular aspects of the procurement of complex military systems by small countries.

External contributions to this book comprise invited chapters on the experience of small, advanced industrial economies. Nearly all were written especially for this volume. Seven countries were selected for inclusion using a three-step procedure described in the Introduction. We are most grateful to the expert country specialists who accepted our invitation to write relevant chapters. Their contributions were peer-reviewed and revised before final submission to the publisher and highlight particular aspects of defence procurement or industry that their authors regarded as important. They were not structured around an editor's template. This approach, we hope, will give the contributions relevance well into the future while, at the same time, all the latest data can best be obtained from reliable internet sources and annual publications such as the *SIPRI Yearbook*.

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# Abbreviations

ACOA	Atlantic Canada Opportunities Agency
ADAS	amphibious deployment and sustainment
ADF	Australian Defence Force
ADI	Australian Defence Industries
ADM (Mat)	Assistant Deputy Minister (Materiel) (Canada)
AECMA	European Association of Aerospace Industries
AFP	Australian frigate project
AGP	agreements on government procurement
AII	Australian Industry Involvement
AIP	Australian Industry Participation
AIT	Agreement on Internal Trade
AMC	Australian Marine Complex
AMEC	Australian Marine Engineering Corporation
ANAO	Australian National Audit Office
ANZAC	Australian and New Zealand Army Corps in World War I
ANZUS	the Australia, New Zealand and the United States security alliance
ASC	Australian Submarine Corporation
ASD	AeroSpace and Defence Industries Association of Europe
ASPI	Australian Strategic Policy Institute
ASW	anti-submarine warfare
AWA	Amalgamated Wireless Australasia Ltd
AWACS	airborne warning and control system
AWD	air warfare destroyers
BHP	Broken Hill Propriety Ltd
CBRN	chemical, biological, radiological, and nuclear
CBW	chemical and biological weapon systems
CDC	Computing Devices Canada
CDF	Chief of the Defence Force (Australia)
CDIB	Canadian defence industry base
CEDQR	Canada Economic Development for Quebec Regions
CEO DMO	Chief Executive Officer Defence Materiel Organisation (Australia)



xvi *Abbreviations*

CF	Canadian Forces
CoA	Commonwealth of Australia
CoBPSC	Code of Best Practice in the Supply Chain
CoPS	complex product systems
COTS	commercial-off-the-shelf
CPFs	Canadian patrol frigates
CRS	Congressional Research Service (USA)
CSIC	Spanish Council for Scientific Research
CSP	Commercial Support Program (Australia)
CTC	competitive tendering and contracting
CTOL	conventional-take-off-and-landing
CUF	common user facility
CV	carrier version
DAO	Defence Acquisition Organisation (Australia)
DCP	Defence Capability Plan (Australia)
DDR&D	Directorate of Defence R&D in the MoD (Israel)
DER	Defence Efficiency Review (Australia)
DFAIT	Department of Foreign Affairs and International Trade (Canada)
DFO	Department of Fisheries and Oceans (Canada)
DIB	Defence industry base
DMO	Defence Materiel Organisation (Australia)
DMP	Defence materiel process
DMS	Defence Maritime Services Pty
DND	Department of National Defence (Canada)
DoD	Department of Defence (Australia)
DOD	Department of Defense (USA)
DPA	Defence Procurement Agency
DPDSA	Defence Production and Development Sharing Arrangements (Singapore)
D&S	defence and (national) security
DSO	Defence Science Organisation (Singapore)
DSTA	Defence Science and Technology Agency (Singapore)
DSTO	Defence Science and Technology Organisation (Australia)
EADS	European aerospace conglomerate
EC	Environment Canada
EDA	European Defence Agency
EDIG	European Defence Industry Group
EFA	European fighter aircraft
EREA	European Research Establishments Association
ESF	Economic Support Fund
ESDP	Europe's security and defence policy
EU BAM	EU Border Assistance Mission
EUFOR	European Military Force
EUMM	EU Monitoring Mission

EUPOL	EU Police Mission
EUROPA	European Understandings for Research Organisation, Programmes and Activities
EUSEC	EU Security Sector Reform Mission
FC	Finance Canada
FDA	Force Development and Analysis Division (Australia)
FDI	foreign direct investment
FFA	Aeronautical Research Institute (Sweden)
FFG	guided missile frigate
FMF	US Foreign Military Funded Program
FMS	US Foreign Military Sales program
FMV	Defence Procurement Agency (Sweden)
FOA	National Defence Research Institute (Sweden)
FOI	Defence Research Establishment (Sweden)
FTA	free trade agreement
GD	General Dynamics
GDP	gross domestic product
GMDD	General Motors Diesel Division
GNI	gross national income
GPA	Agreement on Government Procurement
GPFs	general purpose frigates
HRC	Human Resources Canada
HRSDC	Human Resources and Social Development (Canada)
IAI	Israeli Aircraft Industries
IC	Industry Canada
ICPs	industrial cooperation programs
ICT	information communications technology
IDF	Israeli Defence Force
IDSS	Institute of Defence and Strategic Studies
IED	improvised explosive device
IFOR	Peace Implementation Force
IMAT	International Military Advisory Team
IMI	Israeli Military Industries
IMOD	Israeli Ministry of Defence
INAC	Indian and Northern Affairs Canada
IP	intellectual property
IRB	Industrial and Regional Benefits (Canada)
ISAF	International Security Assistance Force
ISO	Industrial Supplies Office (Australia)
ITAR	International Traffic in Arms Regulations
JORN	Jindalee Operational Radar Network
JSF	Joint Strike Fighter
KFOR	Serbia-Kosovo-Albania and Kosovo Force
LAV	light armoured vehicle
LBD	learning-by-doing

LCH	heavy landing craft
LCS	littoral combat ships
LEO	low earth orbiting
LHD	landing helicopter dock
LoI	Letter of Intent
M&A	merger and acquisitions
MCP	major crown project
MDD	McDonnell Douglas
MEA	Ministry of Economic Affairs (The Netherlands)
MHP	maritime helicopter project
MINDEF	Ministry of Defence (Singapore)
MLRS	multiple launch rocket systems
MoD	Ministry of Defence (UK, The Netherlands)
MOTS	military-off-the-shelf
NAFTA	North American Free Trade Agreement
NDC	National Defence College
NDHQ	National Defence Headquarters (Canada)
NDIB	national defence industry base
NDO	National Defence Organisation
NFFFP	National Aeronautical Research Programme
NRCan	Natural Resources Canada
NS	national security
NSA	new shipboard aircraft
OCCAR	Organisation Conjoint pour la Coopération en matière d'Armement
OEf	Operation Enduring Freedom
OEM	original equipment manufacturer
OTHR	over-the-horizon radar
PBS	portfolio budget statements
PCO	Privy Council Office (UK)
PFI	private finance initiative
PfP	Partnership for Peace
PLO	Palestinian Liberation Organization
PMC	private military company/contractor
PMO	project management office
PP	production package
PSOs	peace support operations
PWGSC	Public Works and Government Services Canada
RAN	Royal Australian Navy
R&D	research and development
RFI	request for information
RFP	request for proposal
RFT	request for tender
RIR	Riksrevisionen, Sweden's Audit Organisation
RLM	Lockheed Martin–Tenix joint venture

RMA	Revolution in Military Affairs
RSN	Republic of Singapore Navy
R&T	research and technology
SAF	Singapore Armed Forces
SAR	search and rescue
SCP	security cooperation participant
SEMA	Swedish Emergency Management Agency
SFOR	Peace Stabilisation Force
SIPRI	Stockholm International Peace Research Institute
SME	small and medium-sized enterprise
SPAC	Senior Project Advisory Committee (Canada)
SSMs	surface-to-surface missiles
ST	Singapore Technologies
S&T	science and technology
STOVL	short-takeoff/vertical landing
TB	Treasury Board (Canada)
TBS	Treasury Board Secretariat (Canada)
TNO	Dutch National Defence Group
TPC	Technology Partnerships Canada
TTCP	Technical Cooperation Program
TWP	terror weapons
UAV	unmanned airborne/aerial vehicle
UN	United Nations
UNMEE	UN Mission in Ethiopia and Eritrea
UNMIS	United Nations Mission in Sudan
UNPROFOR	United Nations Protection Force Bosnia
UNTAC	United Nations Transitional Authority – Cambodia
UNTSO	United Nations Truce Supervision Organisation
US DIB	US defence industry base
USN	US Navy
VTOL	vertical take-off and landing
WEAG	Western European Armaments Group
WED	Western Economic Diversification (Canada)
WEP	weapons effect and protection
WMDs	weapons of mass destruction
WTO	World Trade Organisation
WTO-AGP	WTO Agreement on Government Procurement