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OCCASIONAL PAPER  
AUGUST 2020

# NATIONAL MOBILISATION DURING WAR: PAST INSIGHTS, FUTURE POSSIBILITIES

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Published by the National Security College, The Australian National University, Acton ACT  
2601, Australia

Available to download for free at [nsc.crawford.anu.edu.au](http://nsc.crawford.anu.edu.au)

ISBN (print): 9781925084177

ISBN (ebook): 9781925084184

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Cover design and layout by Black Bear Creative.

Cover photograph: LSIS Peter Thompson/Defence Image Gallery.



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# EXECUTIVE SUMMARY

National mobilisation involves purposefully using a society's resources to support achieving national objectives in time of war, crisis or disaster. In the case of war, national mobilisation will usually be focused on enhancing the nation's defence forces including increasing their capabilities, size and ability to generate higher activity levels. The additional workforce, money and material needed for these changes to the armed forces can, in almost all cases, only be generated by the civil sector of society.

**National mobilisation in war is accordingly a deliberate whole-of-society action that consciously shifts the boundary between the defence and civil sectors of a society in favour of the former.**

The amount the boundary shifts between the defence and civil sectors varies with the context. Different strategic circumstances and the different strategies nations adopt will result in different national mobilisations as regards scope, nature, scale and duration. However, while a nation's strategies are a choice, its strategic circumstances are less discretionary. Crucially, the future strategic circumstances are always uncertain, and this makes mobilisation policymaking and planning problematic.

This paper aims to provide a structured way of thinking about mobilisation policymaking and planning that takes this inherent uncertainty into account. It uses two approaches: alternative futures and historical case studies. By projecting the known past into the uncertain future, the paper generates key insights on national mobilisation issues relevant to defence strategic thinking, doctrine and processes across a range of strategic circumstances.

The paper begins by discussing nine historical mobilisation case studies. It situates each within one quadrant of the Australian Defence Force (ADF) Future Operating Environment (FOE) 2035 framework. Each quadrant represents an alternative future and, thus, a different strategic circumstance. This framework is sufficiently broad such that Australia's plausible future national mobilisations are likely to fall within its boundaries.

The paper's final chapter uses the case study analysis to first determine general national mobilisation principles applicable across all four futures; and second, to lay out some specific national mobilisation aspects particularly relevant to each future individually.

## General National Mobilisation Principles

**1. National mobilisation concerns total national resources.** The aim of national mobilisation is the effective and efficient use of all resources available to the nation. The type and quantity of resources required will vary with strategic circumstances. These resources could include diverse areas such as workforce availability, transportation, equipment, health support, facilities, industrial base, training expansion, communications, legislative issues and funding.

**2. National mobilisation also concerns international resources.** National mobilisation does not imply autarkist policies. The international system is as much a potential source of mobilisation resources as the nation is. Since the Second World War, a vast and comprehensive global marketplace has developed that allows all governments access to considerable additional workforce, money and materiel resources.

**3. National mobilisation must balance essential military and civilian requirements.** In national mobilisation, the defence and civil sector are equally essential. Neglect of either imperils the other. This makes coordination a major issue in national mobilisation. The needs of the frontline must be balanced against those of the home front, but this is not a simple problem as none of the factors involved remain static for any length of time. All are dynamic and constantly changing.

**4. National mobilisation and military strategies are interdependent.** There is a direct relationship between military strategies adopted and national mobilisation. A balance must be struck between the demands of the chosen strategies and the ability of the national mobilisation base to meet these demands. The development through national mobilisation of the strategy's means and their application are not simply opposite sides of the same coin but are mutually determining elements.

**5. National mobilisation must be flexible in its use of controls.** To best allocate national resources, governments can use a variety of direct and indirect controls ranging along a continuum from command to regulations to manipulating market forces. Such controls need to be flexible to meet the changing needs of national mobilisation as it evolves.

**6. National mobilisation planning in peace and war is a deeply political issue.** National mobilisation involves the allocation of scarce resources within a society. It is accordingly a deeply political process not just within government but also across government departments,

the armed forces and the whole of society. National mobilisation is commenced and controlled by the nation’s highest political leaders, but politics of many different kinds play out all the way down.

**7. National mobilisation is an integrated activity.**

National mobilisation in bringing together whole-of-society and international resources requires an integrated planning approach. It cannot be a series of separate individual projects, but rather must be an overall program. This does not imply that any specific national mobilisation will necessarily involve all resources available. Instead, most will be unique with just the resources necessary mobilised and accessed.

**8. National mobilisation must consider the pre- and the post-war.** Just like wars, national mobilisations start

and finish. Planning may continue indefinitely across peacetime, but societies cannot stay mobilised forever. Conceptually, mobilisation does not end when victory is declared but rather when society is returned to a ‘normal’ state. Shifting the boundary between the defence and civilian sector back so that the defence sector declines, perhaps precipitously, can be difficult for the people and industries involved.

**Specific National Mobilisation Aspects**

The table below summarises some specific features of national mobilisation that decision-makers will need to consider, given particular future strategic circumstances. These aspects were prominent in the analysis undertaken of the historical case studies.

Alternative Future/Strategic Circumstance	Historical Case Studies	Specific National Mobilisation Aspects
<b>FRAGMENTED FUTURE</b>	Australian mobilisation in the First World War (1914–18) and in the early years of the Second World War (1939–41).	<ul style="list-style-type: none"> <li>• Expeditionary force focus</li> <li>• Homeland defence secondary</li> <li>• Australia’s self-perception as distant support base unreciprocated</li> <li>• Establishing domestic arms manufacturing difficult</li> <li>• Merchant ship shortage</li> <li>• Workforce capacity limits reached</li> <li>• Financed by loans</li> </ul>
<b>MULTIPOLAR FUTURE</b>	Australia 1942 under threat of direct Japanese attack, and later 1943–45 when the situation changed from defending Australia to liberating Japanese-held territory across the Pacific and East Asia, and lastly Australia during the early Cold War 1951–56.	<ul style="list-style-type: none"> <li>• Homeland defence focus evolving to stress expeditionary forces</li> <li>• Supporting allies major focus</li> <li>• Selective domestic arms manufacturing</li> <li>• Ship repair capability important</li> <li>• Workforce capacity limits reached</li> <li>• Command economy develops</li> <li>• Financed by taxation</li> </ul>
<b>MULTILATERAL FUTURE</b>	Australian mobilisation for East Timor 1999–2000 and the Iraq Invasion 2003.	<ul style="list-style-type: none"> <li>• Expeditionary forces sole focus</li> <li>• National support base of marginal importance</li> <li>• Exploit allies’ national mobilisations</li> <li>• Just-in-time support</li> <li>• Low stockholdings</li> <li>• Commercial support emphasised</li> <li>• Financed by loans</li> </ul>
<b>NETWORKED FUTURE</b>	The 1990 Wrigley Report as an Australian example and the US 1939–41 mobilisation just prior to the US formally entering the Second World War.	<ul style="list-style-type: none"> <li>• Homeland defence stressed</li> <li>• National mobilisation focused</li> <li>• Business deeply involved in defence</li> <li>• Civilian-led national mobilisation</li> <li>• Business expansion (rather than increased output from existing plants)</li> <li>• Financed by taxation</li> </ul>

### ***Using This Paper***

If circumstances and time available do not allow consulting the whole paper to address a national mobilisation issue, a faster but narrower approach may be useful:

- 1.** Use Chapter 1 to decide which alternative future fits the specific context of the problem being examined.
- 2.** Consult Chapter 6 on the general mobilisation principles and the specific aspects appropriate to the future of interest.
- 3.** Refer to the appropriate chapter (2, 3, 4, or 5) for an in-depth discussion of the way previous national mobilisations were undertaken in the future of interest.

# INTRODUCTION

Mobilisation occurs during all conflicts with just the degree of mobilisation varying. Surprisingly then, most mobilisation thinking, doctrine and processes focus almost entirely on pre-war mobilisation activities, aiming to ensure that a nation is adequately prepared for an anticipated future war. In reality, this is an overly ambitious undertaking. Wars often arrive unexpectedly, their nature and scope are rarely understood before they start, their duration is unknown, and even the full list of participants is generally in doubt. Deep uncertainty inevitably frustrates thinking about mobilisation.

Such difficulties are inherent when looking forward in time. The future is always unpredictable. However, there are ways to structure thinking that takes this characteristic into account. Alternative futures can be a useful way to imagine tomorrow's circumstances. Conversely, in thinking about the past, there is a considerable historical record pertaining to mobilisation. Combining the two, as this paper does, involves placing the known past into the uncertain future to advance national mobilisation thinking, doctrine and processes.

Before undertaking this merging of past and future, 'national mobilisation' as a term needs explaining. It is often used very broadly and for many different purposes.

Doctrinally, mobilisation 'is the process that generates military capabilities and marshals national resources to defend the nation and its interests'.<sup>1</sup> This definition is useful but has some shortcomings resulting from narrowing the process to focus on 'military capabilities'. Contemporary strategic demands, and many operational activities, require more than solely military capabilities, entailing instead broad interagency responses. Moreover, the military both serves society and is supported by it. Accordingly, in practice, mobilisation encompasses the whole of society, not just the military.<sup>2</sup>

Accepting this qualification, mobilisation in this paper principally considers expanding the military force-in-being, either in terms of size or ability to undertake a higher rate of effort. The size may be increased by

acquiring more of the same equipment already in service or by introducing new capabilities. Higher rates of effort can be achieved by increasing personnel numbers and through acquiring additional logistic items, improved maintenance systems, automation and new facilities. Accordingly, mobilisation determines both what a nation's armed forces can become and, as crucially, can achieve. Considered in this manner, the force-in-being is effectively an extension of society; it does not have some form of independent existence.

Doctrine holds that mobilisation may be military or national. The addition of the adjective means that 'military' mobilisation focuses principally on achieving higher rates of effort from the existing force structure using the existing resource base. It is a somewhat self-centred form of mobilisation, being about force preparation, work-up, operations and reconstitution.<sup>3</sup>

In contrast, national mobilisation looks outward from the armed forces to the society beyond. National mobilisation focuses on expanding the existing force structure's capabilities and capacities through accessing and developing the national support base. This support base is broader than its name suggests. It comprises: the organic resources of the armed forces, national resources and civil support arrangements, and international resources and support.<sup>4</sup>

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**National mobilisation is then not whole-of-government but rather whole-of-society, while including accessing resources from the wider global domain.**

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Governments decide when to mobilise with several successive phases possible. However, before mobilising the nation, a government may instead decide to surge: a short-duration event usually across a strictly limited range of activities and organisations. A surge advances to a mobilisation when the strategic demands exceed the extant defence capabilities and capacities and require calling on the national support base.

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<sup>1</sup> *ADDP 00.2: Preparedness And Mobilisation (Provisional)*, Canberra: Defence Publishing Service, 2004, p. 3-1, para 3.1.

<sup>2</sup> The comparable US doctrinal definition is: "Mobilization is the process of assembling and organizing national resources to support national objectives in time of war or other emergencies." *Joint Mobilization Planning, Joint Publication 4-05*, Washington: Joint Chiefs of Staff, 23 October 2018, p. ix.

<sup>3</sup> *ADDP 00.2*, p. 3-10, para 3.26.

<sup>4</sup> *Ibid.*, p. 4-6, para 4.11.



The first phase is selective defence mobilisation where national resources are used to raise the level of preparedness of selected individuals or force elements. The second phase is partial defence mobilisation that raises preparedness for significant numbers of individuals or force elements. The third is defence mobilisation that raises whole force preparedness, while the fourth and final phase is, somewhat confusingly, again called national mobilisation. This last phase involves substantial force expansion, deep whole-of-society involvement and large-scale use of international resources.

This doctrinal sequence that progressively involves more and more of the force-in-being can unintentionally obscure a crucial point. As is apparent, the level of support required from the national support base steadily increases at every level of mobilisation. The final doctrinal 'national mobilisation' phase terminology may mislead, as the whole of society is involved to varying degrees across all phases.

All mobilisation is national mobilisation. The process across each of the four steps involves to varying amounts:<sup>5</sup>

*[First,] the development of the national economy, support base and infrastructure to focus on the achievement of national objectives and to increase the capability and sustainment of the Australian Defence Force (ADF). ...[Second,] [g]overnment intervention in the economic, business and societal fabric and processes of the wider nation, in order to direct resources through public decision-making rather than market and private sector decision-making.*

This broad understanding of national mobilisation is used in this paper.

The paper's long first section, Chapters 1–5, takes a historical perspective. It begins with Chapter 1 where the historical cases to be examined are laid out and then purposefully situated within the ADF's FOE 2035 framework. This step is undertaken to guide thinking about national mobilisation in various possible future strategic circumstances.

The FOE 2035 framework describes four alternative futures – that is, four possible future strategic

circumstances within which a future Australian national mobilisation might occur. Having placed each particular historical case into the generic futures framework, Chapters 2–5 then discuss specific Australian national mobilisations in the two world wars, the Cold War and the post-Cold War era. A single US example is discussed to address an illustrative gap in the Australian cases. Each chapter outlines each historical case's particular strategic circumstances and specific mobilisation issues.

The paper's second section, Chapter 6, builds from the historical analyses to determine eight general mobilisation principles. These general principles are useful in thinking about national mobilisation regardless of whichever future or combination eventuates. Complementing this, the specific national mobilisation aspects particularly relevant to each single future are consolidated in Table 2.

There are some national mobilisation aspects the paper does not cover. The most obvious is mobilising the population who provide the money and people to allow the state to make war. This is covered in a separate paper.<sup>6</sup> Less apparent but also missing are robust discussions on recruiting or conscripting military personnel, a highly contentious issue across Australian national mobilisation history. Much more also needs to be said on demobilisation. As Fred Ikle's book title proclaims: *Every War Must End*. Demobilisation is a part of ending a war in a way that leads to a better peace.

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**More broadly, strategic circumstances are not the only significant influence shaping national mobilisations. The different strategies nations adopt also impact national mobilisations as regards scope, nature, scale and duration.<sup>7</sup> However, while a nation's strategies are its choice, its strategic circumstances are less discretionary.**

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This paper focuses on the strategic circumstances' impact on national mobilisation. Australia has mostly fought wars as a junior partner of a coalition, so its choice of strategy has been less influential in shaping its national mobilisations. The United States in 1939–41 had this experience as it mobilised to participate in a major war already underway.

<sup>5</sup>Ibid., p. 3-2, para 3.5.

<sup>6</sup>Peter Layton, *Social Mobilisation in a Contested Environment*, ACSACS Occasional Papers Series No. 9, Canberra: UNSW, 2019, <[https://www.unsw.adfa.edu.au/school-of-humanities-and-social-sciences/sites/hass/files/uploads/348683473-ACSACS-Occasional-Paper%209\\_Final.pdf](https://www.unsw.adfa.edu.au/school-of-humanities-and-social-sciences/sites/hass/files/uploads/348683473-ACSACS-Occasional-Paper%209_Final.pdf)>

<sup>7</sup>This issue moves into grand strategy, where agency is privileged over the strategic environment, examined in Peter Layton, *Grand Strategy*, Brisbane: Amazon, 2018.

Eliot Janeway wrote that:<sup>8</sup>

*the programmatic requirements of [our] mobilisation, while all-important, were not set by our mobilisers. They were imposed well in advance ... by the kind of war our Allies and our enemies had begun to fight. [Our] job was to adjust war production to the realities of combat, not to re-form those realities, except insofar as it budgeted for the momentum.*

There are also some terms that co-habit the definitional space that are useful to differentiate from mobilisation. Mobilisation is not logistics which is aptly described as being 'the bridge between our national economy and the actual operations of our combat forces in the

field'.<sup>9</sup> Logistics transports and distributes the products of mobilisation to the forces in the field. Logistics runs from the factory gate to the frontline, whereas mobilisation is everything before the factory gate.

Mobilisation also differs from sustainment, which lies within the military domain and involves accessing the national support base as appropriate to provide resources for military operations. Mobilisation is instead external to the defence force, involving areas as diverse as workforce availability, transportation, equipment, health service support, facilities, industrial base, training base expansion, communications, environment, legislative issues and funding.<sup>10</sup>

<sup>8</sup> Eliot Janeway, 'The Drive and Direction of Mobilization', *Harvard Business Review*, Vol. 29, Issue 5, September 1951, pp. 99–109, pp. 106–07.

<sup>9</sup> Henry E. Eccles, *Logistics in the National Defense*, Harrisburg: The Stackpole Company, 1959, p. 10.

<sup>10</sup> *Ibid.*, p. 3C-1, para 2b.

## CHAPTER 1 - PAST CASES INTO PRESENT FUTURES

Australia has mobilised numerous times in the past. Historical case studies analysing earlier mobilisations can offer some glimpses into mobilisation approaches and processes that may again be useful in some future situation. Such use of history, though, needs to be undertaken carefully as many significant policymaking failures can be traced to using historical analogies.<sup>11</sup>

The use of historical analogies is an instinctively appealing approach, especially for busy decision-makers. People can look backwards in time, choose a particular historical event and responses to it, and then impose this understanding onto current and emerging issues. This approach appeals to well-known cognitive biases that are attracted to sensing matches and disregarding differences. However, choosing a historical analogy as a guide to the future is akin to gambling on the results of a future sporting event. Success in either is serendipitous.

To mitigate such difficulties, this paper uses nine case studies placed into an alternative futures framework.<sup>12</sup> The paper's outputs are accordingly generic, not specific to a particular historical context. The outputs are not complete solutions unique to a single specific scenario as the historical analogy methodology would provide. Instead, they are meant to help people structure their initial thinking about future mobilisation problems and provide a useful starting point for developing possible courses of action.

### **Alternative Futures Framework**

The Shell Oil Company was an early user of the alternative futures methodology, credited with foreseeing in the early 1980s that change might be afoot in the Soviet Union and that Mikhail Gorbachev deserved close attention.<sup>13</sup> Alternative futures gave Shell an inkling of something missed by the large intelligence agencies of the Western defence establishments. Alan Gyngell, head of the Office of National Assessments 2009–13, wrote of attending a major US conference in 1988 on the future of the Soviet Union:<sup>14</sup>

*the astonishing thing in retrospect was that not one of us came close to predicting that just 12 months later the Berlin Wall would be torn down ... and that within three years the Soviet Union itself would cease to exist.*

The defence intelligence agencies dealt in what was considered likely to happen not what might happen. Alternative futures allowed Shell to imagine that the future may unfold differently. The alternative futures methodology accepts that uncertainty is pervasive and that making predictions is inherently problematic.

The alternative futures approach is used in the ADF's FOE 2035 document.<sup>15</sup> The futures used were originally developed for the Netherlands Armed Forces.<sup>16</sup> In being derived using generic drivers, the FOE 2035 alternative futures framework is independent of problems or dates.

<sup>11</sup> Yuen Foong Khong, *Analogies at War: Korea, Munich, Dien Bien Phu, and the Vietnam Decisions of 1965*, Princeton: Princeton University Press, 1992, p. 9. Richard E. Neustadt and Ernest R. May, *Thinking in Time: The Uses of History for Decisionmakers*, New York: The Free Press, 1986, p. xiii.

<sup>12</sup> For those unfamiliar with alternative futures as a methodology some useful references include: Peter Schwartz, *The Art of the Long View*, New York: Doubleday Currency, 1991; Kees van der Heijden, *Scenarios: The Art of Strategic Conversation*, Chichester: Wiley, 1997; Liam Fahey and Robert M. Randall (eds), *Learning From The Future: Competitive Foresight Scenarios*, New York: Wiley, 1998; Hugh Courtney, *20/20 Foresight: Crafting Strategy in an Uncertain World*, Boston: Harvard School Business Press, 2001; Paul J.H. Schoemaker, *Profiting from Uncertainty: Strategies for Succeeding No Matter What the Future Brings*, New York: The Free Press, 2002.

<sup>13</sup> Angela Wilkinson and Roland Kupers, 'Living in the Futures', *Harvard Business Review*, May 2013, <<https://hbr.org/2013/05/living-in-the-futures>>; Ian Wylie, 'There Is No Alternative to ...', *Fast Company*, 30 June 2002, <<https://www.fastcompany.com/45027/there-no-alternative>>.

<sup>14</sup> A. Gyngell, 'Death of Dualism', *Griffith Review*, Vol. 1, No. 1, Spring 2003, p. 80.

<sup>15</sup> *Future Operating Environment: 2035*, Canberra: Department of Defence, 2016, <[https://cove.army.gov.au/sites/default/files/08-09\\_0/08/Future-Operating-Environment-2035.pdf](https://cove.army.gov.au/sites/default/files/08-09_0/08/Future-Operating-Environment-2035.pdf)>.

<sup>16</sup> See *Future Policy Survey: A new foundation for the Netherlands Armed Forces*, Netherlands Ministry of Defence, 2010.

An advantage of using the FOE 2035 framework is that the analysis in this paper can be integrated easily with other ADF studies using the same framework. Moreover, with the adoption of the framework by the United Kingdom's Ministry of Defence, this association can be extended internationally.<sup>17</sup> Even so, the framework presently used by the ADF may be revised in the future.

The FOE 2035 framework derives four alternative futures based on two broad drivers:

- first, states in the future having more or less power
- second, states in the future being cooperative or competitive towards each other.

These drivers lead to four possible futures illustrated in Figure 1 and briefly explained below.<sup>18</sup>

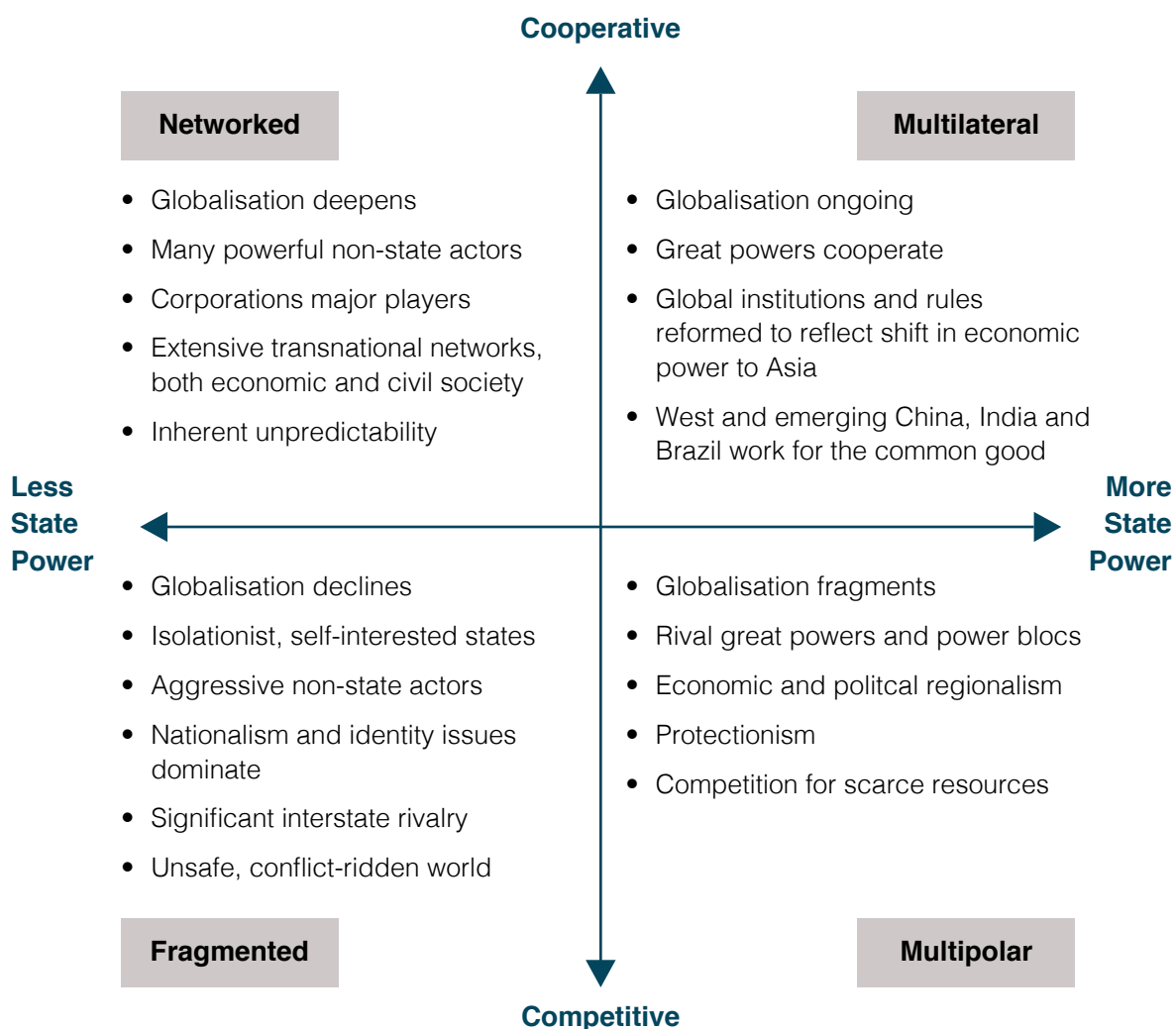


Figure 1: FOE 2035 Alternative Futures

<sup>17</sup> *Global Strategic Trends: The Future Starts Today*, 6th edn, London: UK Ministry of Defence, 2018, pp. 21–29.

<sup>18</sup> These futures are explored in some detail in Peter Layton, *Tomorrow's Wars: Insights from Our Four Alternative Futures*, Canberra: Air Power Development Centre, 2018.

**Multilateral Future.** Globalisation is ongoing. States are the most important actors in the international system and are focused on making absolute gains through cooperation. States are deeply engaged in strong regional and global multilateral institutions. There is a growing sense of global community. The emphasis on cooperation, though, means that to address problems there is a need to build consensus and this can be both difficult and time-consuming.

**Networked Future.** Globalisation is deepening. States are relatively weak and less powerful as they must work with non-state actors to achieve their national objectives. There are strong regional and global multilateral institutions. The participants are diverse and dissimilar, ranging across states, large commercial organisations, civil society groups and non-government organisations. There is a broadly based global governance regime, a strong sense of global community and a desire to solve problems through consensus.

**Fragmented Future.** Globalisation is declining. Conflict is persistent and widespread with non-state actors and

states actively competing with other non-state actors and states. All see advantage in working with other states and non-state actors to advance their aims. The catchcry is 'the enemy of my enemy is my friend' with short-term, continually shifting alliances of convenience common. States favour autarkic policies given their growing sense of being alone, isolated and abandoned.

**Multipolar Future.** Globalisation is splintering, shaped by intense great power competition. Seeking security, small states and middle powers now cluster around great powers in various blocs and alliance structures. The great powers are focused on improving their bloc's relative power, strength and influence. The great powers may offer military, economic and diplomatic inducements to attract lesser states to leave existing blocs and join theirs.

### **Case Studies**

The four futures can also be used to look backwards in time. Historical examples of earlier Australian national mobilisations can be placed within the alternative futures framework as illustrated in Table 1.

Alternative Futures	Historical Case Studies
<b>FRAGMENTED FUTURE</b>	Australian mobilisation in the First World War (1914–18) and in the early years of the Second World War (1939–41).
<b>MULTIPOLAR FUTURE</b>	Australia 1942 under threat of direct Japanese attack, and later 1943–45 when the situation changed from defending Australia to liberating Japanese-held territory across the Pacific and East Asia, and, lastly, Australia during the early Cold War 1951–56.
<b>MULTILATERAL FUTURE</b>	Australian mobilisation for East Timor 1999–2000 and the Iraq Invasion 2003.
<b>NETWORKED FUTURE</b>	The 1990 Wrigley Report as an Australian example and the US 1939–41 mobilisation just prior to the US formally entering the Second World War.

Table 1: Alternative Futures Case Studies

Figure 2 (below) places the eight historical cases and the single study onto the alternative futures diagram developed earlier (Figure 1). The precise location is a matter of judgment but is intended to reflect the interplay of the four drivers in each case, based on the circumstances of the mobilising nation at the time.

The different placements of Australia and the United States in the same 1939–41 period usefully highlights this approach. For Australia in 1939–41, the linkages with other nations were declining as war severed ties to Europe, access to the United Kingdom became problematic and trade with Japan (previously an important export customer) withered. Australia's general situation in 1939–41 fits the fragmented future. It is situated to the right of the broadly similar 1914–18 case, since the Australian Government was noticeably more powerful relative to society.

For the US, in 1939–41 the nation was emerging from the isolationist stance of the 1930s with deep linkages rapidly being established with Britain and, by extension, across the British Commonwealth. In this period, the US Government was relatively weak compared to other societal groups and needed to work with them to achieve desired national objectives. It could not dictate domestic outcomes. Such characteristics reflect the networked future.

Another instructive apparent anomaly is the rapid shift of Australia from its 1939–41 position to its 1942 position. In the 1939–41 period, the Mediterranean was the nearest the war to Australia, and at the time Australia saw its strategic circumstances as a repeat of the First World War. Federal Government politics was unusually turbulent with an early election considered likely. Accordingly, the Government did not seek significant sacrifices from the public and adopted a 'business as usual' approach that pervaded society. Over the two years, there were three prime ministers.

In sharp contrast, with Japan's attacks in December 1941 major conflict moved very close to Australia, including the bombing of Darwin and Townsville, frequent submarine attacks on Australian coastal shipping

and major fleet actions in adjacent seas. If the war had earlier been restricted to Europe and its nearer seas, conflict was now global with the trading links of the interwar period shattered. Rival great powers Japan and the United States were now fighting near Australia and occasionally in its northern skies. Australia's strategic circumstances had dramatically changed with the Curtin Government embracing 'total mobilisation' and greatly increasing government control over Australia's political, military, economic and social realms.

As the war continued into 1943–45, Australia's circumstances evolved further. The Australian Government retained extensive powers, but the need to cooperate more with allies noticeably impacted Australian mobilisation. While the world Australia needed to navigate in 1942 was strongly multipolar, by 1943 it was shifting as multilateralism became more influential.

Beyond the Second World War, the Cold War raged in the 1951–56 period. From Australia's perspective, the world remained multipolar but was now becoming increasingly multilateral, with post-war institutions proliferating and a need to work closely with the United States and the United Kingdom.

After the end of the Cold War, Australia's international environment became noticeably multilateral, reaching its zenith with East Timor in 1999–2000. At this time, Australia needed to work cooperatively with a very diverse range of state and non-state actors. The Iraq War in 2003 was similar but less multilateral, with Australia dealing only with the United States and a small number of other states.

The final case study is the 1990 Wrigley Report. At this time, the Cold War was ending and globalisation was rapidly expanding. The report considered that mobilisation would involve deep cross-societal participation. The Australian Government had limitations and accordingly needed to work closely with state and local governments, businesses and civil organisations. Such an approach is compatible with the networked future's parameters.

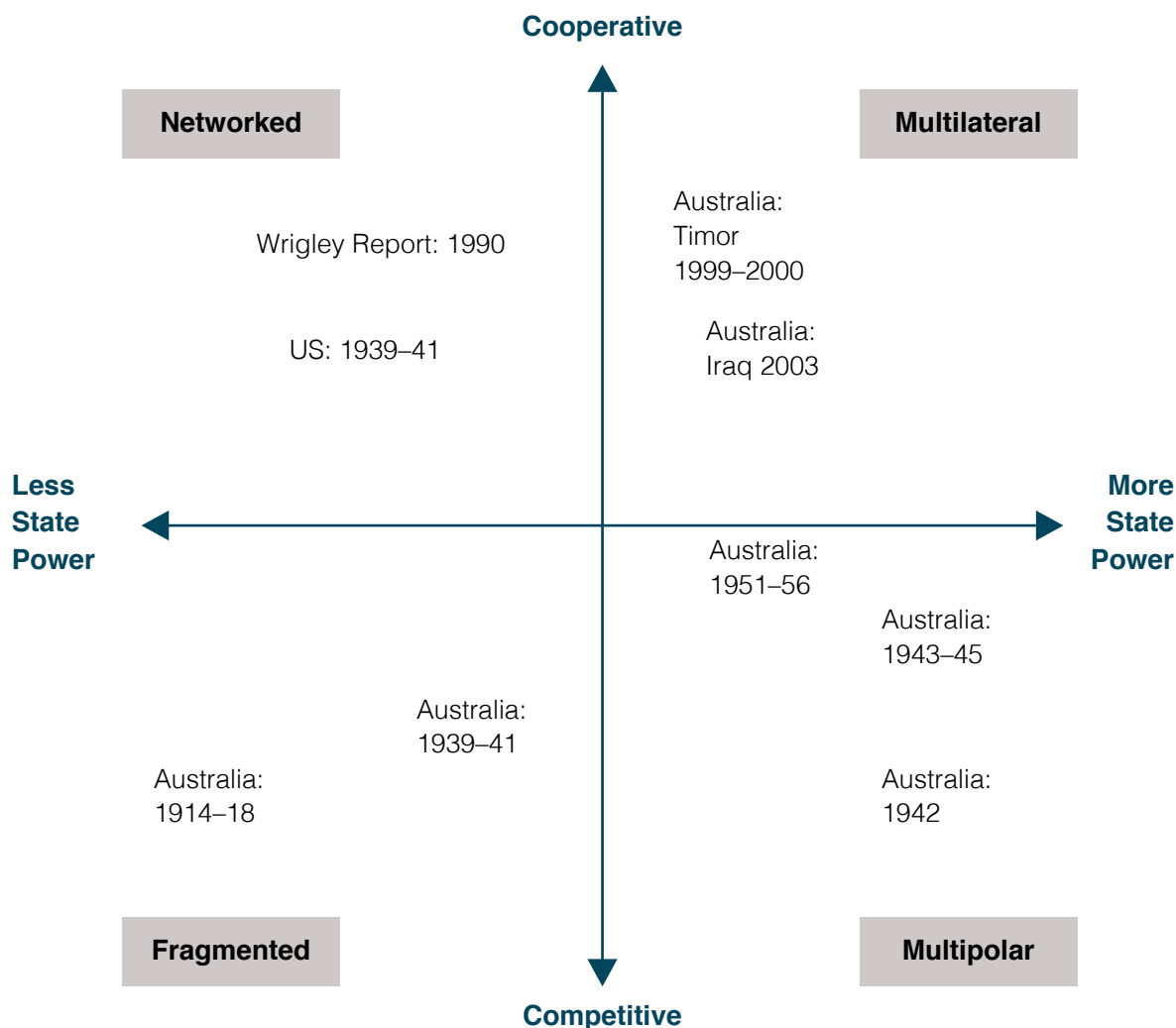


Figure 2: Historical Case Studies and Alternative Futures

The nine case studies discussed are broadly representative and illustrate certain aspects but are not exhaustive. Many mobilisations by many other nations have not been included. Nevertheless, deliberately situating the case studies within the ADF’s FOE 2035 alternative futures framework does highlight strengths and gaps in Australia’s past experience. Australia’s major national mobilisation historical experiences have been concentrated within the fragmented and multipolar futures. In contrast, the historical record in the multilateral future for Australia is rather meagre and non-existent in the networked future; hence, the latter uses the 1990 Wrigley Report and the US 1939–41 experience.

These two outliers yield useful insights, but there are clear shortcomings in one being a report, not a historical case, and the other being a non-Australian mobilisation within a quite different governmental structure.

Numerous past Australian mobilisations have not been included for reasons of relevance, information availability and overlap with selected cases. These include: the Russian Intervention 1918–19, Malayan Emergency 1950–63, Korean War 1950–53, Indonesian Confrontation 1963–66, Vietnam War 1962–72, Cambodia 1992–93, Somalia 1992–93, Rwanda 1993–96, the Iraq Occupation 2003–09, Afghanistan 2001–present, and the war against Islamic State 2014–present.

### ***From the Past to the Future***

The paper's methodology aims to use the past to inform thinking about possible future national mobilisations. This approach only has utility if the alternative futures may plausibly occur. In this, each imagined alternative future is quite different; however, it is possible to imagine how particular current trends when extrapolated might possibly lead to each of them.

Andrew Krepinevich and Stephan Frühling are concerned that a future great power war between China and the United States may bring conflict deep into South-East Asia and perilously close to Australia.<sup>19</sup> This is a future akin to the imagined multipolar future in which the national mobilisation cases of Australia 1942, 1943–45 and 1951–56 discussed in Chapter 3 may provide insights.

In contrast, Senator Jim Molan considers that Australia should in the future focus on national resilience as much as external military threats: 'security, resilience and sovereignty' are now the critical issues that should drive defence thinking.<sup>20</sup> This is a proposed rebalance

suggestive of the networked future and its case studies of the 1990 Wrigley Report and the US 1939–41 explored in Chapter 5.

On the other hand, Ross Babbage warns the world post-COVID-19 pandemic will be fragile and dangerous, with states failing economically, competition intensifying and superpower relations worsening.<sup>21</sup> This appears to raise the possibility of a fragmented future discussed in the Australia 1914–18 and 1939–41 cases in Chapter 2.

Finally, seemingly forgotten in the tumult of uncertain futures, Australia has commitments in the greater Middle East and is increasing its support to the Pacific. These are starkly different regions and associated with different national interests, but have similarities to the multilateral world of the East Timor 1999–2000 and Iraq 2003 cases examined in Chapter 4.

Even so, none of these four futures is expected to emerge exactly as laid out in the framework. Instead, the paper, like FOE 2035, assumes the future that actually occurs is captured somewhere within the wide span of possibilities all four alternatives cover.

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<sup>19</sup> Andrew F. Krepinevich Jr, *Protracted Great-Power War A Preliminary Assessment*, Washington: Center for a New American Security, February 2020, p. 2; Stephan Frühling, *Sovereign Defence Industry Capabilities, Independent Operations and the Future of Australian Defence Strategy*, Centre of Gravity Series, No. 36, Canberra: Strategic & Defence Studies Centre, 2017. P. 6.

<sup>20</sup> Senator Jim Molan quoted in Ben Packham, 'How this pandemic will shift our defence posture', *The Australian*, 2 April 2020.

<sup>21</sup> Ross Babbage quoted in *ibid.*



## CHAPTER 2 - MOBILISATION IN A FRAGMENTED FUTURE

Australia in both world wars initially sent troops to the Middle East to fight under British command. The degree of globalisation declined at the start of both wars, although much more in the First World War given it was greater before that conflict. Similarly, in mobilising for both wars, the Australian Government was relatively weak in terms of being able to impose its will on society. Thus, both cases can be considered as broadly falling into the 'fragmented world' alternative future.

In terms of mobilisation, there are significant differences between these cases. In 1914–18, the mobilisation undertaken was unsustainable, adversely impacting both the war effort and the post-war peace. In sharp contrast, the 1939–41 mobilisation was sustainable, although reaching its limits towards the end of the period. The Australia of 1939–41 assumed its war would be a rerun of the First World War and mobilised cognisant of the lessons of that early conflict. However, the two Australias were markedly different. New problems emerged the second time round.

### Australia 1914–18: An Exporting Nation at War

At the start of the First World War, Australia had a population of almost 5 million, was heavily reliant on its primary sector export trade and was an integrated part of a globalised world. Some 40 per cent of Australia's gross domestic product (GDP) was accounted for by its imports and exports, as it is now.<sup>22</sup>

At the outset of the war, Australia considered it would be a main support area, a provider of supplies and military personnel for the British Empire and its allies. In this role, the Empire would provide the shield behind which Australia mobilised its resources to support the overall war effort.<sup>23</sup> This 'shield' principally involved a large navy to protect the sea lines of communications that allowed Australia to send its soldiers and supplies to the frontline nations.

In the 1910s, the Australian Government had devised 'The Australian Defence Scheme', a mobilisation plan

modelled on the British War Book that prescribed actions to be taken by the major government departments during crises and war. Left undecided in this was the size of the expeditionary force Australia might initially commit. A force of 12,000 was discussed pre-war, but, wracked by Empire fervour, 20,000 soldiers were offered when war broke out.<sup>24</sup> By war's end, half of Australia's eligible white male population had enlisted with 80 per cent serving overseas, mostly in combat roles, including 210,000 in the infantry and more than 30,000 in the Light Horse.<sup>25</sup> Logistics support was largely provided by Britain.

By mid-1916, Australia's force in France had grown to five Divisions, with the British Government pressing for a sixth to be fielded by July 1917. However, with casualties growing and recruitment problems, the Australian Government decided instead to focus on simply trying to maintain five Divisions.<sup>26</sup> Even so, in April 1918, three battalions were disbanded, and then in September another eight. At war's end the Army was shrinking, not by design but from personnel shortfalls.

The Royal Australian Navy operated globally under Royal Navy control and grew from 16 commissioned vessels and 3,700 personnel in 1914 to 37 ships and 5,200 personnel in late 1918, albeit many of the vessels added were small. Notably, four ships were built in Sydney during the war: a light cruiser and three small torpedo boat destroyers. For their construction, steel plate was imported from the United States.

In military terms, Australia suffered the most deaths in the First World War of any of its wars with 60,000 killed, almost twice that of the Second World War. Similarly, in economic terms, the First World War was the most damaging of any war Australia has participated in. Real aggregate GDP declined across 1914–20 by 9.5 per cent with per capita incomes declining over 16 per cent. Indeed, per capita incomes did not return to 1914 levels until 1938. At war's end, total government debt (federal and state) stood at around 120 per cent GDP, up from

<sup>22</sup> Frank Bingham, *Australia's Trade Since Federation*, Canberra: Department of Foreign Affairs and Trade, 2016, p. 1.

<sup>23</sup> J.O. Langtry, *The Wrigley Report: An Exercise in Mobilisation Planning*, Working Paper 228, Canberra: The Australian National University, 1991, p. 18.

<sup>24</sup> Neville Meaney, *Australia and World Crisis 1914–1923: A History of Australian Defence and Foreign Policy 1901–23*, Vol. 2; Sydney: Sydney University Press, 2009, pp. 29–31.

<sup>25</sup> Jeffrey Grey, *A Military History of Australia*, 3rd edn, Cambridge: Cambridge University Press, 2008, p. 118.

<sup>26</sup> Meaney, *Australia and World Crisis 1914–1923*, p. 211.

75 per cent in 1914.<sup>27</sup> For Australia, the First World War could be classified economically as a depression.

## Mobilisation Observations

### Shipping Insurance

The start of the war saw an instant cessation of Australian trade carried in British ships until it could be ascertained the Empire's navies had cleared the seas of German warships. Trading activities such as regional wool sales were abandoned indefinitely. Accompanying this was an almost immediate rise in shipping freight costs. Australian governments and businesses looked to Britain to establish new Empire-wide trading policies that would restrict, encourage or divert trade as would best assist the war effort. However, the official history records that:<sup>28</sup>

*the greatest help was the British Government's ready made scheme of marine insurance. By this, four-fifths of the war risk in the policies issued by certain approved associations of marine insurers was undertaken by the Government. ... Far more than any other administrative act, this wise measure of state-supported insurance set free the sea-borne trade of the British Empire.*

### Export and Import Restrictions

With a drought underway there was already considerable local anxiety over food supply and pricing. Soon after war was declared, state and federal governments established a royal commission to first investigate 'the supply of food-stuffs and other necessities of life required by and available for the people of Australia during the war', and second ascertain what of the remainder could be exported.<sup>29</sup> Shortly thereafter, however, the British Government requested that Australia not export meat outside the Empire and export wheat and flour only to the United Kingdom. Such measures prevented Australia exporters shipping to other global markets where prices were the highest, causing considerable angst amongst primary producers for the war's duration.<sup>30</sup>

Imports created further problems. Drugs could no longer be imported from Germany and the United Kingdom had only limited stocks of some types. Australian hospitals were at once faced with a possible shortage of many types of drugs. In response, the British Government licensed the export of ether and chloroform, but prohibited exports to Australia of aspirin, antipyrine, chloral, veronal, urotropine, salvarsan, surgical dressings and bandages.<sup>31</sup> In 1916, some US and Japanese manufactured drugs became available and supply constraints from the United Kingdom were partially relaxed.

Import restrictions steadily worsened as it became apparent that supplies from accessible countries barely met the Empire's critical wartime needs. The United Kingdom severely restricted export to Australia of steel, explosives and other products important to Australian industry including tin plate, wire netting and galvanised iron.<sup>32</sup>

### Shipping Shortfalls

Pre-war Australian and British Empire strategists had accepted the premise that Australia's 'supreme function' in time of war was to maintain supplies of food and other material to the 'Mother Country'. From the start of the war, however, it became apparent there was a shortage of merchant shipping. This shortage was not principally from hostile action – surface raiders such as Germany's SMS *Emden* caused only passing dislocation. Instead, the shortage was primarily a result of the growing requirements for British and neutral shipping to logistically support the Empire's armies in France and beyond, including the Gallipoli expedition.

Without shipping, however, Australia could not get its goods to market. Prime Minister Hughes declared that: 'Australia can only meet the financial strain imposed by this war by speedy and profitable sale of its products. This cannot be done without [sea] freight and at reasonable rates.'<sup>33</sup> In his reply in January 1916, the Colonial Secretary overturned both the pre-war expectations of Australia supplying food to the United Kingdom and of

<sup>27</sup> Ian W. Mclean, *Why Australia Prospered: The Shifting Sources of Economic Growth*, Princeton: Princeton University Press, 2013, pp. 147–148.

<sup>28</sup> Ernest Scott, *Australia During the War*, 7th edn, The Official History of Australia in the War of 1914–1918, Vol. XI, Sydney: Angus & Robertson, 1941, pp. 514–516, 518.

<sup>29</sup> *Royal Commission on Food Supplies and Trade and Industry During the War*, Parliament of the Commonwealth of Australia, 1914 (2nd Session), Melbourne: Government of the Commonwealth of Australia, 17 December 1914, p. 2. <<http://dro.deakin.edu.au/eserv/DU:30068907/australia1914foodsupplies.pdf>>.

<sup>30</sup> Scott, *Australia During the War*, pp. 519–521.

<sup>31</sup> *Ibid.*, p. 522.

<sup>32</sup> *Ibid.*, p. 522.

<sup>33</sup> Cable by Prime Minister Hughes cited in *ibid.*, p. 532.

the normal considerations of commerce and finance. He spelt the United Kingdom's problem out succinctly in noting 'the absolute dearth of [shipping] tonnage at present requires that it should be directed to nearest sources of food supply and makes it more difficult to find tonnage for the long voyage to Australia'.<sup>34</sup>

It was now realised that in carrying goods by sea, the issue was not how many ships were available, or the price of the goods, but rather how quickly voyages could be completed. Australia was a very long way from the United Kingdom; there were suppliers much closer that did not require the same length of time to ship their products to the UK market. A single ship could make multiple trips to the United Kingdom from Canada in the time a ship could make only one round-trip voyage to Australia. Herbert Hoover, then food administrator of the United States wrote: 'roughly, every 5,000 tons of food to the Allies requires 15,000 tons of shipping from Australia, 10,000 tons from the Argentine, and 5,000 tons from North America'.<sup>35</sup>

The logistic argument was sound but presented Britain with a dilemma. Keeping large armies in the field abroad required shipping be allocated away from Australia, but this meant – the sting in Prime Minister Hughes' remarks – Australia might not be able to continue its war effort. The United Kingdom solved the problem by pre-emptively buying the bulk of Australia's wool, wheat, meat, metals and dairy products to be delivered to storage in Australia. After this, the UK either found shipping for the goods or left them in storage. The war continued evolving, though, as the Official War Historian, Professor Ernest Scott, notes:<sup>36</sup>

*the enemy's submarines, immediately before his declaration of unrestricted warfare as from the 1st of February, 1917, made greatly increased inroads on shipping. ... despite the fact that only the first half-million tons of Australian wheat had yet been lifted, the British Government was forced, by sheer shortage of vessels, to turn its shipping again to America, leaving its three million tons of Australian wheat at the railway sidings, where mice and weevils afterwards began their phenomenal depredations.*

### **Domestic Manufacturing**

Given the increased demand and lack of foreign competition, manufacturing in Australia received a boost.

However, expansion of local manufacturing was problematic given the impossibility of importing any but the most urgently required machinery. UK and US machinery manufacturers were fully committed to executing orders for their higher priority customers and markets. During most of the war, machinery of any sort was practically unprocurable by Australia from overseas.

**Rifles.** The Lithgow Small Arms Factory opened in 1912 and had produced some 13,800 rifles in the 12 months before war was declared. At the outbreak of war, the United Kingdom urgently requested that Australia send any surplus rifles; this reduced Australian national stockholding to only 10,000 rifles. At the time, the factory had enough raw materials in store for about one year of production, and frantic efforts to find enough raw materials and skilled men to increase production in the years to follow began. Some 30,500 rifles were produced during the 1915–16 financial year, the highest rate of production during the First World War. A second shift was introduced to cope with the workload, but across the war there were severe difficulties housing the additional workers given Lithgow's small size.

**Munitions.** In 1915–16 there was considerable effort put into manufacturing guns and shells. Guns in accord with government policy that Australia 'should be self-contained in respect to the manufacture of munitions of war', and shells as ammunition usage rates estimated pre-war proved markedly incorrect and shell stocks were running dangerously low. The United Kingdom was accordingly requested to provide detailed information on gun manufacture and send some trained staff to allow production to be undertaken in Australia. The British Army Council advised that munitions companies were too busy and had insufficient staff for such an activity. Over time the matter lapsed. Low rate shell production was initiated within 12 months, but by this time stocks from Australia were no longer needed.

Behind these unsuccessful attempts lay a much bigger problem.

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**Wars beget innovation: tactical requirements, gun and shell design were all rapidly evolving. Australia was simply too distant with too limited production facilities to keep up.**

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<sup>34</sup> Cable by Secretary for the Colonies cited in *ibid.*, p. 533.

<sup>35</sup> Herbert Hoover, *Food Control: A War Measure*, Address to Pittsburgh Press Club, 18 April 1918, Washington: GPO, 1918, p. 3.

<sup>36</sup> Scott, *Australia During the War*, p. 538.

<sup>37</sup> *Ibid.*, p. 246.

The official history notes:<sup>37</sup>

*Not only the kind of shell demanded by the exigencies of war, but also processes of manufacture, changed with bewildering rapidity. In Great Britain, where the guns were designed and made, and the shells to fit them were at the same time designed and manufactured, it was comparatively easy to change the system with the change of pattern. The directing technical ability was at hand to superintend and the trained workmanship was available. But it was an entirely different proposition to make these rapid changes 12,000 miles away, and to do it from blue-prints.*

### **Exporting Labour**

There was another product even more valuable than primary produce: workers. If Australians could not make munitions themselves, they could work in the factories of those who did.

Early in the war, Vickers & Sons Ltd and other United Kingdom firms recruited about 1,000 Australian tradesmen in Australia and were favourably impressed. In 1915, Major Barraclough, then in the United Kingdom doing a study of munitions manufacturing for the Australian Defence Minister, expressed the opinion that 1,000 good workers from Australia would be more valuable than a battalion of infantry. Lloyd George, then Minister of Munitions, noted that he could take and would welcome as many skilled tradesmen as came.<sup>38</sup>

The United Kingdom labour market was being stretched by the demands for personnel from the British armed forces. Australian tradesmen, coming from a less depleted workforce, were particularly valuable. Over time, both skilled and unskilled labour was sent to the United Kingdom under an organised Australian Government program. In addition, several hundred men discharged from the AIF as physically unfit joined the program in the UK. Eventually, some 6,000 workers were involved. Not all UK requests for labour were met. The Admiralty, which already had many Australians working at Rosyth Dockyard, sought 500 more for shipbuilding. As this competed with an Australian Government plan for building ships in Australia, the request was refused.

Australia uniquely sent civilian workers. In contrast,

Canada sent workers organised into military labour companies and battalions. British companies and the UK Minister of Munitions, however, preferred Australia's civilian scheme as being more flexible and efficient.<sup>39</sup>

### **Financing War**

Initially, the Government hoped war costs could be financed by taxation, but the scale of the conflict soon overwhelmed those expectations and additional monies were borrowed from the British Government.

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**A remarkable financial experience of the First World War was the success of seven war and three peace loans floated in Australia by the Federal Government. These garnered some £250 million from a very wide cross-section of the Australian community.**

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In the last war loan, more than 240,000 people bought bonds and stock.<sup>40</sup> In 1920 it was estimated that the war cost almost £380 million, making the large contribution of the war loans readily apparent.<sup>41</sup>

The Governor of the Commonwealth Bank, Denison Miller, thought the war loans 'a stupendous achievement for Australian patriotism'. That may be so. However, the Australian Government was gravely worried about the final war loan and passed a law making contributions mandatory. The war finished immediately after the law was passed and so it lapsed.<sup>42</sup>

### **Australia 1939–41: Been There, Done That**

In September 1939, Australia's population was some 7 million, a marked increase since the First World War. The nation was industrialising and creating a more balanced economy, although protectionist policies and import tariffs enacted by many nations during the Great Depression meant the export trade was now forced to focus on British Commonwealth countries. Well aware that the international system was deteriorating, the British had two years earlier convened an Imperial Conference.

The 1937 Conference provided useful policy guidelines including: the UK rearmament program was straining its resources and Australia should rely more on its own production capabilities; shipment of arms from the UK might be problematic during a new European

<sup>38</sup> Major Barraclough in civilian life was the Professor of Mechanical Engineering at the University of Sydney, *ibid.*, p. 266.

<sup>39</sup> *Ibid.*, pp. 266–274.

<sup>40</sup> *Ibid.*, pp. 499–502.

<sup>41</sup> *Ibid.*, pp. 495–496.

<sup>42</sup> *Ibid.*, p. 499.

war; and Australia should not depend on early, or even complete, fulfilment of its orders for aircraft from Britain. In response, Australia set about building up an arms industry with renewed vigour.<sup>43</sup>

For the first time, the Government began devising a War Book that summarised what each government department was to do during a crisis or at the declaration of war. Hierarchically below these general directives were subordinate departmental war books that expanded on the actions to be taken and filled in the details. The War Book's preface declared it was 'compiled on the basis of a war which would demand the employment of all available resources' and so its chapters were comprehensive, ranging across the armed forces, internal security, civil defence, insurance, transport issues, finance, economic warfare and more.<sup>44</sup> In content, the War Book appeared derived either from lessons from the First World War or more recent British planning. Original independent thinking 'was conspicuous mainly by its absence'.<sup>45</sup>

While the prime minister gave the War Book his imprimatur, at the start of the war two critical chapters were missing that would cause significant problems across the 1939–41 mobilisation. These were the Manpower Measures chapter that was 'not yet available' and the 'not yet completed' Supply Measures chapter.<sup>46</sup> Perhaps surprisingly, given prime ministerial interest, the relevant official history noted that pressure from the Department of Defence played a seminal role in forcing other departments to begin addressing mobilisation issues.

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**When the Second World War began, it was initially perceived as a repeat of the First World War with military forces deployed to Europe while Australia mobilised at home, protected from conflict, and tried to supply the Empire with food and supplies. There were some worries that Japan might take the opportunity to cause mischief, but invasion was generally discounted.**

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If Japan did attack, the War Book envisaged this would mostly create severe disruption to coastal shipping for several months. The UK's announcement to prepare for a three-year war with Germany was accepted if not believed; the formation of the new Department of Munitions and Supply with a five-year 'sunset' clause reflected this advice. The fall of France in mid-1940 simply reinforced pre-existing Australian perceptions that the war would be fought in the northern hemisphere.

In early 1941, however, the Government started to become concerned over Japan and disillusioned with UK strategic direction. By mid-1941, the Government was concentrating on home defence.<sup>47</sup> Even so, the war against Germany dominated force deployments. By the end of 1941 when the Japanese attacked, Australia had three Divisions (the 2nd AIF) deployed to the Middle East and one Division dispersed across Malaya, Singapore, Ambon and Timor. The Navy's major fleet units were under Admiralty control undertaking European and Mediterranean operations, while the Air Force had several squadrons serving overseas but was principally committed to the Empire Air Training Scheme in Australia.

In retrospect, Australia's 1939–41 war years may seem of little import. Indeed, a few weeks before the Japanese attacked, General Blamey, 2nd AIF commander, famously critiqued Australians as being 'a lot of gazelles grazing on the edge of a jungle while beasts of prey are walking up towards them'.<sup>48</sup> He thought Australians should be mobilised as much as German civilians were assumed to be. However, in retrospect, Germany at the time was inadequately mobilised and was having significant trouble becoming so; Germany missed its national mobilisation 'window', helping it lose the war.<sup>49</sup> In contrast, while the Australia of 1939–41 made some errors, as 1942 soon revealed, its national mobilisation overall was a success.

Economic historian Sydney Butlin writing in 1955 declared that:<sup>50</sup>

<sup>43</sup> DS.J. Butlin, *War Economy 1939–1942*, Australia in the War of 1939–1945, Series 4: Civil, Vol. III, Canberra: Australian War Memorial, 1955, pp. 3–5.

<sup>44</sup> Preface and Contents pages from War Book of the Commonwealth of Australia: Coordination of Departmental Action on the Occurrence of Strained Relations and on the Outbreak of War, Melbourne: Department of Defence, July 1939 reprinted in Desmond Ball and J.O. Langtry, eds, *Problems of Mobilisation in Defence of Australia*, Manuka: Phoenix Defence Publications, 1980, pp. 148–157.

<sup>45</sup> Butlin, *War Economy 1939–1942*, pp. 23–27.

<sup>46</sup> *Ibid.*, p. 24.

<sup>47</sup> D.M. Horner, *High Command: Australia and Allied Strategy 1939–1945*, Sydney: George Allen & Unwin, 1982, p. 23.

<sup>48</sup> "Like a Lot of Gazelles": Australians Blind to Dangers', *The Mercury*, Monday 17 November 1941, p. 2, <<https://trove.nla.gov.au/newspaper/article/25930381>>.

<sup>49</sup> Richard Overly, 'The German economy from peace to war: The Blitzkrieg economy', in Stephen Broadberry and Mark Harrison (eds), *The Economics of the Second World War: Seventy-Five Years On*, London: CEPR Press, 2020, pp. 18–22.

<sup>50</sup> Butlin, *War Economy 1939–1942*, p. 259.

*Those first two years were precious. The work done during them was a major factor in Australian survival under the Japanese threat. One of the greatest advantages enjoyed by Australia when war spread to the Far East was that many of the initial difficulties and most of the routine tasks of organising a nation for war had already been mastered.*

## Mobilisation Observations

### **Mobilisation Balance**

Australia's grand strategy across the period involved a carefully balanced approach that both raised and sent expeditionary forces overseas while simultaneously mobilising society for a progressively greater effort over the longer term. Neither strand was prioritised at the expense of the other.

Large expeditionary forces were raised, but these were purposely not too large; the eligible workforce was deliberately reserved for other activities associated with the war, such as manufacturing. Australian products were made available for export to support the Allied war effort, but such exports were those that met the political need of marketing primary produce surpluses and the fiscal need to maintain overseas monetary exchange balances to pay for essential imports.

Home defence received attention but not in a way that impacted maintaining the expeditionary forces overseas. Focusing the Air Force on training Allied aircrews rather than restructuring for the defence of Australia was the most obvious manifestation of this. The munitions industry was developed rapidly, but not to a stage where it became a workforce competitor to the armed forces or those industries supplying civil needs. In this, the expansion of the war effort depended to some extent on importing manufacturing machinery, materials, aircraft and weapons, and initially these could only be acquired if trade and thus export income was maintained.

Official Australian historian Sir Paul Hasluck, later Governor-General of Australia, described the 1940 mobilisation effort as a 15 per cent effort on its way to a planned 25 per cent effort in 1942.<sup>51</sup> The balanced approach had its failings in being a gradual build-up that did not prioritise where resources should be directed. Its upside was that it was a well-rounded effort that relatively smoothly transitioned all Australians towards total war. Moving the nation to a war footing simply took time. Recruiting and training large armed forces and creating an extensive munitions and aircraft

industry could not be done instantly.

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**In 1939, mobilisation was made easier as the lingering aftermath of the Great Depression meant there were considerable resources in terms of labour, equipment and materials unused or working below full capacity. This spare capacity was gradually taken up.**

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In 1940, decisions on the allocation of the now scarce resources became based on the simple division of the economy into essential and non-essential sections. By 1941, with resources becoming scarcer still, decision-making now focused solely on allocations within the essential sections. Limits to Australia's war effort were becoming visible.

The labour market was a microcosm of this progression. Initially, the growth in labour requirements could be readily met by employing women. As unemployed women became fewer, war activities like munitions manufacture became reserved occupations taking precedence over non-essential positions. Soon, reserved occupations were given priority over others even within the essential war sector of the economy. That Australia's labour force might prove too small for the nation's defence aspirations, and that accordingly needed to be carefully allocated, was a perspective accepted only towards the end of 1941.

### **Finance**

Finance was a policy weak spot. There was much rhetoric about shared sacrifice, but the main sources of mobilisation funding were actually from loans. There were some rather modest increases in taxation, but these were especially unpopular policy actions with Australian governments and taxpayers alike. Even so, gross national expenditure on the war markedly increased from about 5 per cent in the 1939–40 financial year to 15 per cent in the 1940–41 financial year. By then, however, planners realised that the economy was reaching full utilisation and that to divert more resources into the war effort would require cuts in civilian sector spending.

Finance now became perceived not just in monetary terms but rather as a means of control. Taxation could be used to withdraw from taxpayers some of their purchasing power, reducing their living standards and thus allowing spending to be shifted into war expenditure. In addition, bank lending and other forms of capital transaction could be controlled so as to limit competition with

<sup>51</sup> Paul Hasluck, *The Government and the People, 1939–1941*, Australia in the War of 1939–1945, Series 4: Civil, Vol. I, Canberra: Australian War Memorial, 1952, p. 563.

the war sector from non-essential activities.

### **Armament Manufacturing**

The period saw rapid industrial expansion as the Government sharply ramped up defence expenditure within Australia. This spending established new industries in areas including cables, tool steels, alloys, bearings, chemicals, motor and aero engines, ammunition, explosives, small arms, precision instruments, optical munitions, armoured fighting vehicles, wireless sets, and aircraft.

The most useful achievement, however, was less industrial output than establishing the organisations that, with their skilled staff and management teams, were to make practical the further expansion necessary to meet the threat of Japanese invasion in 1942. By the end of 1941, the nation's munitions organisation had been set up, considerable factory construction undertaken, initial difficulties overcome, false starts corrected and mistaken appointments adjusted.

To fill senior positions in national munitions production, the Government looked towards private industry managers used to the organisation and direction of large manufacturing enterprises. On the whole, this worked well even if wartime production differed from that in peacetime. The emphasis now was on effectiveness and in particular meeting schedules, not on maximising profit through seeking efficiency gains. The use of industry executives in government supply functions came in for some criticism as the individuals concerned were experienced not in government procurement but rather private enterprise production, a distinctly different task.<sup>52</sup>

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**The diversity in industrial capabilities was admirable but sometimes appeared driven more by enthusiasm for manufacturing particular types of equipment rather than national capacity. The decision to develop and manufacture an Australian-designed medium tank may be an example of this.**

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Even in 1939 it was becoming apparent that there was a tendency to spread production plans over too wide a range of weapons and equipment, although it was not until 1942 that the full implications of the overly ambitious 1940–41 plans became evident.

The greatest technical deficiency in 1939 was in machine tools. Australia started the war with only one lathe manufacturer, two power press manufacturers and a single government machine tools factory. Australia

relied almost exclusively on overseas supplies and these soon were unobtainable. A considerable effort to turn this around meant that by the end of 1940, Australia had 30 firms turning out machine tools and the country was practically self-sufficient.

### **Merchant Ship Building**

To avoid the shortages of shipping that so impacted Australian exports and hence national prosperity during the First World War, the Government decided to build nine 8–10,000-ton deadweight merchant ships in mid-1941. The orders for the ships were spread across the country to expedite production and create multiple suppliers, but developing the numerous shipyards involved took time. Under separately negotiated contracts, the Government provided a small financial grant to each shipyard and then loaned the remainder required to improve them. Each ship was then built under cost-plus-fixed-fee contracts, with a fixed fee paid as a profit or management fee over and above the production cost.

While the capacity for hull construction proved comparatively easy to organise, marine engines presented difficulties. Such engines were not large and had been built in Australia before, but that capability had been lost. However, there was a small residual nucleus of expertise at Mort's Dock and Cockatoo Island in Sydney. With such limited national capacity, only half the requirements of the shipbuilding program could be met.

In mid-1941, it was decided to establish marine engine annexes in Brisbane and Melbourne on land acquired by the Commonwealth and remaining its property. The annex scheme was an adaptation of the UK 'shadow' factory program and recommended by the Advisory Panel on Industrial Organisation. The concept envisaged the use of government factories as the peacetime nucleus, with reliance on private enterprise 'annexes' under government supervision providing capacity for expansion in the event of war.

### **Coordination of Departments**

At the start of the war, the need for interdepartmental coordination across the many different activities underway was clearly recognised as essential to ensure effectiveness and efficiency. The issue received its share of well-intentioned platitudes, but that the coordination was inadequate only became apparent in late 1940. At this time, it also became obvious that the available resources were insufficient to implement all the plans embraced.

<sup>52</sup> Butlin, *War Economy 1939–1942*, pp. 351–352.

There began a search for an effective political and administrative machinery to coordinate the war effort as a whole driven by the need to balance workforce demands, finance requirements and the restriction of non-essential activities. The latter for practical purposes meant lowering civilian living standards. The ability to resolve these three central issues improved steadily during the war, but an optimum solution was never found.

An issue that should have been able to be addressed was the lack of adequate statistical data on which to base policymaking. While some areas excelled, in many fields important in peace as well as in war the available data was noticeably imperfect. In considering problems found in war alone, even imperfect data on which to base policymaking did not exist, and the material available was too incomplete, contradictory or in specific forms too specialised to lend itself to wartime extemporisation.

It was not just data that was lacking. In 1939, the Commonwealth Bureau of Census and Statistics was inadequately staffed in both number and quality, and the state bureaus were generally even worse off.<sup>53</sup> Few staff, beyond a handful of people such as the Commonwealth Statistician, were capable of more than routine manipulation of statistics. The various official statistical organisations were unable to quickly design statistical inquiries adapted to urgent wartime needs.

### **Overseas Staff**

Australia's military effort and its munitions manufacturing build-up relied extensively on timely access to material and resources from the United States and United Kingdom. Australia had long-established links into the United Kingdom, but only embryonic links with the United States.

Wartime demands revealed these overseas centres were inadequately staffed. In 1941, the Government set up an Australian section of the British Purchasing Commission in North America and placed orders with US firms through there, diplomatic and military staff numbers in the United States were increased and a technical division established in the High Commission in London. These staff developed official and personal relationships that helped expedite Australian requests for material and resources from the US and UK.

The practice of the special 'personal' trip to speed up war material deliveries developed. This approach was

increasingly used once the new Australian overseas organisations took shape, and especially when the United States' introduction of Lend-Lease (discussed in the next chapter) led to additional political and bureaucratic complexities. Visiting parliamentarians became tasked with special missions connected with supply of war materials in addition to their more general objectives.

### **Coda: Supply Chain Blues**

The COVID-19 pandemic has seen a sudden return of interest in supply chains and manufacturing in Australia. The two issues are intertwined and were of similar importance in the two historical cases discussed. In both, the supply chain relied on merchant shipping. Such shipping was in short supply as Australia's allies controlled its allocation and reserved it for their deemed higher priority needs. The problem was compounded as Australia's manufacturing capability in the 1914–18 period was at best embryonic and in 1939–41 was limited in the equipment it could manufacture and in the capacity it could provide. Goods and material needed to be imported across at times hostile seas.

Such concerns have become greater as globalisation has deepened, technology has become more complicated, and the search for economies of scale have led to out-sourcing across the globe. In examining the US defence industry in the post-Cold War era, Thomas Etzold noted that the growing reliance on components manufactured offshore could be problematic in time of conflict as such items may then be inaccessible. Etzold thought this raised a new strategic choice:<sup>54</sup>

*Would we be better off spending billions of dollars to buy forces that would keep the sea and air corridors open between the United States and key foreign partners in our military/economic infrastructure, or in spending them to recreate in the continental United States the capacity to make what we might need?*

The same question may be asked when planning future Australian mobilisations, although poor access to offshore production may be as much from the unavailability of transportation as hostile action.

In 2017, Mark Cancian took the issue a step further in comments concerning the United States, but which conceptually could apply equally to Australia. He postulated that global supply chain issues might mean future defence production could be severely constrained in times of major war. In such circumstances, and with the

<sup>53</sup> Ibid., pp. 353–354.

<sup>54</sup> Thomas H. Etzold, 'National Strategy and Mobilization: Emerging Issues for the 1990s', *Naval War College Review*, Vol. 43, No. 1, Winter 1990, pp. 19–30, p. 27.



peacetime force structure suffering combat attrition, the US military would be forced into the American civilian economy to exploit whatever was there. This would mean:<sup>55</sup>

*taking what the civilian economy produces, painting it green, and sending it forward. Some 'civilian-like' equipment might be produced relatively quickly. Production of MRAPs (Mine Resistant Ambush Protected – essentially armored gun trucks), for example, surged within a year during the Iraq war ... So after, six or eight months of [attrition combat] combat, the main Army combat vehicle might be MRAP gun trucks, but that's better than nothing.*

Supply chain issues in a possible fragmented alternative future are increasingly concerning Australian strategic thinkers. Frühling worries that in a future major war similar to the 1914–18 and 1939–41 periods, Allied demands for guided weapons production may peak at the same time as Australia's. The United States may then choose to address its own needs first and cut supplies to distant Australia.<sup>56</sup>

More mundanely, but at least as critical, John Blackburn worries about Australia's limited domestic fuel stockholdings and the reliance on just-in-time shipping deliveries. He argues that while there is a bilateral agreement to access US strategic fuel reserves, shipping these to Australia would rely on oil tanker companies that may place their own nation's demands above Australia's.<sup>57</sup> If so, it would be 1914–18 revisited.

Supply chain issues are now actively being investigated by the Joint Standing Committee on Foreign Affairs, Defence and Trade as part of its inquiry into

the implications of the COVID-19 pandemic. Amongst its terms of reference is inquiring into the strategic implications of 'Supply chain integrity / assurance to critical enablers of Australian security (such as health, economic and transport systems, and defence)'.<sup>58</sup> Such terms of reference highlight that national mobilisation is a whole-of-society concern.

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**In a fragmented alternative future, Australia would be home alone. National mobilisation would then mainly have to draw on the nation's resources, supplemented by whatever could be accessed from allies, friends or the global marketplace.**

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This situation may appear the most difficult from an Australian perspective but 'home alone' can carry different implications, as the 1914–18 and 1939–41 cases suggest.

In the two cases, Australia was simply too distant to significantly matter to adversaries or allies as either a source of concern or support. This irrelevance meant Australia's national mobilisation did not need to be extensive, moderate governmental control of society was adequate, and market-based allocations of scarce resources could generally be relied on. Historically, being irrelevant to the other combatants proved not the most demanding circumstance for national mobilisation. That occurred instead in the multipolar alternative future.

<sup>55</sup> Mark Cancian, 'Long Wars and Industrial Mobilization: It Won't be World War II Again', *War on the Rocks*, 8 August 2017, <<https://warontherocks.com/2017/08/long-wars-and-industrial-mobilization-it-wont-be-world-war-ii-again/>>.

<sup>56</sup> Frühling, *Sovereign Defence Industry Capabilities*, p. 6.

<sup>57</sup> Packham, 'How this pandemic will shift our defence posture'.

<sup>58</sup> Joint Standing Committee on Foreign Affairs, Defence and Trade, *Terms of Reference: Inquiry into the implications of the COVID-19 pandemic for Australia's foreign affairs, defence and trade*, 13 May 2020, <[https://www.aph.gov.au/Parliamentary\\_Business/Committees/Joint/Foreign\\_Affairs\\_Defence\\_and\\_Trade/FADTandglobalpandemic/Terms\\_of\\_Reference](https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Foreign_Affairs_Defence_and_Trade/FADTandglobalpandemic/Terms_of_Reference)>.

## CHAPTER 3 - MOBILISATION IN A MULTIPOLAR FUTURE

The three periods of 1942, 1943–45 and 1951–56 each offer different perspectives on national mobilisations in times of multipolarity. In 1942, globalisation comprehensively fragmented. Almost all of East and South-East Asia now fell within Japan's Greater East Asia Co-Prosperity Sphere while Australia's reliance on the British Empire collapsed, being replaced by a new deep relationship with the United States. During this tumultuous year, the international system became somewhat evenly balanced between the warring Allied and Axis blocs. Across 1943–45, however, Germany and Japan were forced into a long retreat that ended with the Allied bloc dominant. This proven short-lived and by 1947 the Cold War had begun. Multipolarity returned with the world divided into Western and Soviet blocs, and a so-called third world outside alternately seeking to exploit the two blocs' rivalry or stay neutral. By the 1951–56 period, the international system was deeply split with multipolarity well-entrenched, seemingly with little likelihood of a peaceful resolution.

The 1942 mobilisation conducted under the spectre of a possible Japanese invasion was, at the time, labelled 'total'. The mobilisation hurriedly expanded defence activities appropriate to the times, but was ultimately unsustainable. Even so, the period suggests what Australia could do *in extremis*, bearing in mind that the nation had already partly mobilised across 1939–41. Of relevance is that, driven by the pressures of circumstances, the period saw considerable governmental and administrative innovation related to mobilisation.

In the mobilisation across 1943–45 some problems created in the 1942 mobilisation became apparent. In 1942 Australia focused on defence, but in 1943–45 Australia was on the offensive, and victory seemed a matter of time rather than in doubt. Moreover, in late 1945, it started to become apparent how much better the Second World War mobilisation had set Australia up for peace compared to the First World War. In nation-building terms, the Second World War was a 'good' war.<sup>59</sup>

The mobilisation efforts across 1951–56 occurred during particularly tense years of the early Cold War in which the Korean War (1950–53) was underway and political leaders considered a third world war was not just possible but perhaps even imminent. Most

important for this analysis is that in this period Australia developed its most recent War Book.

After 1956, Government interest in national mobilisation in time of war receded. Such a path was also followed in the United States and United Kingdom as the implications of nuclear war became apparent. Imagined future conflicts were very short, fought with immediately available equipment only and would create such widespread devastation that mobilisation concepts now seemed archaic. It was not until the 1980s that some Australian strategic thinkers returned to consider mobilisation issues, eventually leading to some desultory official interest made manifest in the 1990 Wrigley Report (discussed in Chapter 5).

### Australia 1942: Total Mobilisation

On 18 February 1942, Prime Minister Curtin publicly declared 'total mobilisation'. The next day, Darwin was struck by Japanese air raids. These were both Australia's first air raids and the largest single attack ever mounted by a foreign power on Australia. A government spokesman explained total mobilisation meant:<sup>60</sup>

*everybody in this country who has anything or is anything can be ordered by the Government to do what the Government demands. All the possessions of all the people are henceforth at the Government's disposal.*

The Government now assumed an unprecedented – and never again equalled – degree of control over Australian society and the economy. This control was yielded by the Production Executive of Cabinet, a committee of nine ministers, with the Minister for War Organisation of Industry as chair. Their direction of Australian society was kept in sync with the conduct of the war through some members also being members of the War Cabinet.

Even so, post-war there was some criticism that the coordination between the 'war' departments and the 'economic' departments needed formal liaison arrangements not just coordination at the ministerial level.<sup>61</sup> This particularly pertained to workforce allocations between the defence and civilian sectors of society.

At the end of 1942, the Production Executive of Cabinet reported to the Full Cabinet on its operations. Some

<sup>59</sup> McLean, *Why Australia Prospered*, pp. 176–209.

<sup>60</sup> 'Total Mobilisation: Entire Resources of Nation to be Regimented, Defence Needs Must Prevail', *The Mercury*, 18 February 42, p. 1, <<https://trove.nla.gov.au/newspaper/article/25916121>>.

400–500,000 people (some 13 per cent of the overall workforce) had been quickly reallocated from the civilian sector into the defence sector, there had been a marked increase in the supplies and services provided to the armed forces, the non-essential uses of resources had sharply reduced, industry had been rationalised including through product ‘simplification’, rationing and other controls over commodities had been bought in, and food production targets set. The impact of this mobilisation can be seen in the numbers engaged in factories producing civilian goods falling from 504,000 to some 200,000.<sup>62</sup> Reflecting this, defence expenditure rose to about 40 per cent GDP.<sup>63</sup>

## Mobilisation Observations

### **Control of the Civilian Sector**

The year 1942 made evident the need to deliberately, purposefully and above all else carefully balance the defence sector and the civilian sector. It was no longer sufficient to simply give priority to the defence sector and enlarge it without thinking of the impact on the civilian sector.

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**The war could not be won without the support of the civilian sector and the goods and services it produced. On the other hand, developing the large-scale armed forces necessary to win required making deep demands on the civilian sector. Such demands, if accepted, meant sharp cuts to the living standards of all Australians.**

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Butlin, writing in 1955, considered:<sup>64</sup>

*The time had come ... when high policy must decide where the balance was to lie; whether civilians must accept less, and if so how much less; whether the Services and defence production could have more and if so how much more.*

Coming at a time of full employment, the greatest demand on the civilian sector was for people. In the first few months of 1942, the armed forces rose from about 380,000 to more than 550,000. Such a rapid shift in the workforce allocation placed strains on essential civilian production, reinforcing the importance of the

emerging Federal Government Manpower Directorate. In the later 1943–45 period, the view developed that the armed forces had demanded too many personnel from the national workforce in 1942 and that a primary purpose of the Manpower Directorate was actually to restrain unreasonable military demands. By then, the situation was very different and the grave uncertainties of 1942 had been resolved.

The Manpower Directorate, Economic Organisation Regulations, the Prohibition of Non-Essential Production Order, uniform taxation and other measures were used by the Production Executive of Cabinet to quickly direct Australian society to best meet the war effort. Great success was quickly achieved but such an achievement, two official historians opined, reflected Australians’ belief that such measures were legitimately required.<sup>65</sup> In a time of pressing national danger, Australians were willing to be told what to do and what to sacrifice. This self-interested fear only worked for a while, however:<sup>66</sup>

*there developed a deceptive faith in controls whose efficiency depended upon the victims’ co-operation ... most of the controls applied during the first half of 1942 were incapable of rigid enforcement against uncooperative citizens. For the first half of 1942 fear of the Japanese was the overriding sanction. That was not true of late 1942, still less of 1943, a change which many officials had to learn by painful experience. There developed too a disposition to control for the sake of control, to pursue ‘tidiness’ as a goal in itself, to seek completeness in detailed administration far beyond the point where any useful wartime purpose was served.*

### **Control Practices and Issues**

The 1939–41 period had seen a reliance on market measures to control supply flows and direct them to more important purposes. The rapid Japanese advance in early 1942 cut off many sources of supplies and there was a sudden rush of ad hoc procedures to conserve what was already available within Australia. These procedures were then replaced by a formalised set of laws, prohibitions and restrictions designed to shift accessible resources into high priority uses.

<sup>61</sup> Paul Hasluck, *The Government and the People, 1942–1945*, Australia in the War of 1939–1945, Series 4: Civil, Vol. II, Canberra: Australian War Memorial, 1970, p. 245.

<sup>62</sup> Ibid.

<sup>63</sup> David Watt and Alan Payne, *Trends in defence expenditure since 1901*, Canberra: Parliamentary Library, 2013, <[https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/pubs/rp/BudgetReview201314/DefenceExpenditure](https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview201314/DefenceExpenditure)>.

<sup>64</sup> Butlin, *War Economy 1939–1942*, p. 450.

<sup>65</sup> ‘S.J. Butlin and C.B. Schedvin, *War Economy 1942–1945*, Australia in the War of 1939–1945, Series 4: Civil, Vol. IV, p. 9.

<sup>66</sup> Ibid., pp. 10–11.

The demands of 1942 meant all resources were in short supply, especially labour. Accordingly, the emphasis shifted to a general assault on non-essential activities as a means of releasing scarce resources, not because certain items or skills had an immediately identifiable war use, but since everything was needed. The principal driver shaping the control measures became the degree to which a non-war activity could be regarded as unnecessary, not the urgency of the specific resource for defence purposes. An example of this was the 23 February 1942 Prohibition of Non-Essential Production Order that simply banned production of numerous listed articles. Overall, it was quite varied and included controls:

- securing absolute priority for an urgent war use
- restricting less essential uses of key materials
- restricting non-essential and low priority uses of any materials, equipment or labour
- ensuring the resources left to the civilian sector were used efficiently
- helping the fair sharing of limited supplies.

As the control list illustrates, the importance of adequate production to meet essential civil needs was recognised. The department now needed to consider overall national production together with the supply allocations between the armed forces and the civilian sector.

A form of quasi-voluntary controls was adequate for guiding civilian production. Agreement to concentrate production on a few standard lines could be readily gained as the consumer market welcomed any supplies. In setting production goals and priorities, the Department of Supply could reward the cooperative and penalise defaulters. Its approval was necessary for the import of plant and equipment to expand any local manufacturing, and it controlled the allocation of imported raw materials.

The Department of Supply also became involved in supplying the civilian populations of some Pacific Islands. In late 1942, arrangements were agreed between Australia and New Zealand about sharing the responsibility of meeting the Islanders' basic needs. In April 1943, the department formally took responsibility for Australia's part in this complicated task. The civilian supplies most needed in the Islands were in short supply everywhere, while communication with them was uncertain and

erratic. In monetary terms, Australian supplies to the Islands in the 1942–43 financial year was double that of merchandise trade to the Islands in the 1938–39 financial year.<sup>67</sup>

### **Supporting Allies**

Australia's 'total mobilisation' was not all for Australia's use. In calling for assistance from the United States, Australia argued the country could be the base from which a counter-offensive could be launched and waged. In offering the country as a mounting base, Australia now had an obligation to assist the forces arriving. As the US armed forces set up in Australia, so the demands on Australia for production, food, materials, labour, services and facilities grew.

From small numbers in late 1941, there were 88,000 US Army personnel in Australia by June 1942, 160,000 by January 1943 and 200,000 by June 1943. Most were in training or encampments in Queensland, with Townsville and Rockhampton particularly busy. This was greatly reassuring, but such a 'foreign' occupation was a new experience: 'not even the Royal Navy, on which Australia had relied so long and so completely for her security, had ever appeared in Australia on anything but a token cruise'.<sup>68</sup>

Australia had become involved with the US Lend-Lease program in mid-1941 but its contribution was relatively insignificant, unsurprising as Australia before Pearl Harbor was unimportant in American strategic thinking. There was, however, a second half to Lend-Lease concerning reciprocal aid. Those countries given equipment and material under the American Lend-Lease program were expected to reciprocate and give goods and services in return. The generosity of Lend-Lease was intended to be two-way and only agreed to by a dubious US Congress with that understanding.

Australian reciprocal aid commenced with the arrival of US forces in Australia in early January 1942. There was little time to work out the finer details as the Americans quickly needed accommodation, port facilities, hospitals, airports, clothing, food and much more. Initially, the ad hoc arrangement was that the US armed forces would purchase Australian currency for the pay of its Army and for day-to-day minor expenses. Within the limits of its capacity, Australia would provide as reciprocal aid the goods and services required by the American forces based in Australia.

<sup>67</sup> Butlin and Schedvin, *War Economy 1942–1945*, p. 108.

<sup>68</sup> Hasluck, *The Government and the People, 1942–1945*, p. 225.

In May 1942, negotiations in Washington formalised Lend-Lease including the reciprocal aid element. Such aid was to be limited to US armed forces operating in Australia or its territories (then including Papua New Guinea) and elsewhere as the two nations agreed. For the remainder of the war, Australia provided an extensive array of goods and services to the US armed forces including:<sup>69</sup>

*a full ration (including camp expenses, camp stores, hospital treatment and transport up to the Australian ration standard), uniforms (and Quartermaster's stores generally), motor vehicles, petrol, tyres, engineers' stores, building materials, small ships, naval stores, telegraphic and telephonic materials, ammunition, weapons, medical supplies and equipment, messing equipment, accommodation, general services (such as meteorology, radio location for flying and technical training), ship repairs, towage, servicing and repair of vehicles and aircraft, repair of boots, shipping, communications and general transport.*

In 1942 and into 1943 mutual aid quickly grew and a high degree of supply complementarity was achieved between Australia and the United States. While integration was incomplete because of differences in military equipment and standards, an effective and efficient division of labour was achieved. It made little military or economic sense for the United States to ship to its forces in Australia those goods and services that could be produced and procured locally. At the end of 1942, Lend-Lease added about 7 per cent to Australian domestic supply of goods and services, while reciprocal aid absorbed about 5 per cent of Australian domestic production of goods and services.

By the end of 1942, with the demands of the US armed forces in Australia growing rapidly, concerns arose over Australia's physical ability to supply all the eligible items. Further issues emerged over supplying US forces beyond Australia. Initially, Australia responded unreservedly to supply requests for US forces in the Solomon Islands and New Caledonia. In late 1942, though, an order for food supplies totalling some £15 million for US forces outside the South-West Pacific Area made some concerned about future trends.<sup>70</sup> Should Australia prioritise its limited resources into keeping its armed forces in the field or being a general goods supplier for its allies?

### **Allied Supply Council**

There was a clear need to coordinate logistics, production and resource management between Australia and United States. The Allied Supply Council was set up in mid-1942 reporting directly to the prime minister and the commander-in-chief, US General MacArthur. The council comprised the ministers for Supply and Development (chairman), Trade and Customs, Munitions, and War Organisation of Industry, along with a US representative (deputy chairman). Subordinate to the council, an Allied Supply Standing Committee was established consisting of secretaries of the relevant departments together with representatives of the commander-in-chief and of the US Lend-Lease mission in Australia.

The council's role was to coordinate, plan and advise rather than to act as an executive agency; it ruled by suasion not command. An early task for the council was advising the United States in June 1942 of a coordinated program of munitions and other goods expected to be requested from the United States to the end of 1943.

While the council sponsored Lend-Lease requests, it also functioned in reverse. The US Lend-Lease mission in Australia used the council to advocate expanded production in Australia that would make unnecessary or reduce certain Lend-Lease requests. An example was the need for replacement rail track for the heavily used Queensland railways. The council decided to meet this supply requirement not through Lend-Lease but rather using Australian production capabilities. The Department of Munitions, whose responsibility it was, was advised the railway program was to have equal priority with munitions production.

There were shortcomings in the Allied Supply Council approach in that it covered Australian needs only. The Australian Trade Commissioner in North America, Lewis Macgregor, in charge of Lend-Lease negotiations in Washington in mid-1942, noted that there was 'unity of command without unity of supply'.<sup>71</sup> Supply to the armed forces operating in the South-West Pacific was dealt with by two entirely different methods.

The process for deployed US armed forces was direct and simple, being from them to their US-based logistic support agencies. The process for Australia's armed forces was complicated and circuitous, running through

<sup>69</sup> Butlin and Schedvin, *War Economy 1942–1945*, p. 137.

<sup>70</sup> War Cabinet Minute 2507, 7 December 1942.

<sup>71</sup> Butlin and Schedvin, *War Economy 1942–1945*, p. 124.

the Allied Supply Council Lend-Lease approval chain to the Office of Lend-Lease Administration (OLLA) in Washington. Within OLLA, Lend-Lease requests were in competition with other nations' bids and moreover were only accepted if they could be met from US domestic sources without expenditure directly or indirectly of foreign exchange. Beyond this were issues of US manufacturers becoming overloaded and being unable to meet approved requests in a timely manner, and uncertainties about Australia's strategic priority against US global priorities.

### **Shipbuilding**

The Japanese attacks dramatically impacted Australian shipbuilding. As discussed in the previous chapter, the Government ordered nine merchant ships in mid-1941 to allow greater Australian exports and thus enhance national prosperity. In 1942 the emphasis on new merchant ship construction was overtaken by a greatly increased demand for repair and maintenance. The priorities shifted to first the repair of naval vessels, second to repair of merchant vessels, third to new naval construction and then finally new merchant ship construction. The situation became pressing as Japanese submarine attacks on Australian east coast shipping intensified.

The Shipbuilding Board was tasked to develop plans for improving the repair speeds. These saw the appointment of a Controller of Repair under the Director of Shipbuilding to ensure that the two activities were coordinated and that repair work was handled urgently, cognisant of the disruption to construction. Although repairs were now high priority, it was impracticable to stop completely all the new construction at short notice for short periods.

The major repair deficiency was in the availability of skilled labour. It was estimated about 1,000 extra tradesmen were required, most of them for smaller ship repair firms. There were also problems arising from the lack of adequate docking facilities for larger vessels and machine tool deficiencies.

In late 1942 a new shipbuilding demand emerged. The US armed forces started placing large orders under reciprocal aid for small watercraft of various types. By mid-1943 these orders amounted to almost 5,700 craft with an additional 1,000 ordered by the Australian Army. In mid-1943 a new Small Craft Directorate in the Department of Munitions became responsible for small watercraft as the Shipbuilding Board was now too busy with repairs.

Building small watercraft was technically a quite different undertaking, not requiring massive equipment, dry docks or large slipways. Moreover, they were suitable for construction by small contractors. In the event, only some 2,400 of the 6,644 small watercraft initially ordered were delivered. Some 3,000 Australian civilians operated the US Army's small watercraft in northern New Guinea and islands beyond.

### **Construction Expansion**

In 1942 there were sizeable requirements for new facilities, accommodation, barracks, airfields, ports and storage areas as the Australian armed forces rapidly expanded and large US forces arrived. The requirements of the two nations needed to be integrated so that resources could be best used and deadlines met. This involved establishing the Allied Works Council as the central organising authority. It used whenever practicable the established construction organisations of state and local governments, statutory corporations, railways and private enterprise, only creating new organisations wherever they could be more effective.

The first major difficulty was with workforce. The War Cabinet decided to establish a Civil Constructional Corps in preference to a competing proposal for Army Construction Companies. The corps employed both volunteers and some personnel called up under selective service orders. The adoption of civilian rates of pay meant no Army entitlements, such as sick leave, dependants' allowances and repatriation benefits applied.

Although ostensibly a civilian organisation, the discipline imposed and the powers given its management were very different from the contemporary normal industrial practice. The men were under compulsion, they could not refuse work and were subject to regulations governing their conduct on the job or in work camps. The corps grew to some 65,000 by mid-1943.

### **Food Council**

In April 1942 the Food Council was established, co-chaired by the Minister for Supply and the Minister for Commerce, the latter being the department charged with production of foodstuffs. Council members included representatives of the Supply and Commerce departments, the Prices Commission, the Department of War Organisation of Industry and the Australian and Allied services. The council was to advise on the production and supply of all foodstuffs to Australian and Allied forces, the export of foodstuffs to Allied and British Empire armed forces overseas, and to work with state governments to maintain essential civilian food supplies.

In May 1942 the council proposed creating 'a planned food economy', subsequently establishing food production quotas and, on that basis, making allocations among Australian civilians, the fighting services and the export market. The council later devised plans for increasing food preserving and processing that made use of Lend-Lease aid. In April 1943, a co-equal but authoritative body, the Food Executive, was established: 'charged with the production, control and distribution of foodstuffs at the highest pitch of efficiency, not only to meet all existing demands, but to face the increasing demands which the war will inevitably produce'.<sup>72</sup>

The prime minister noted that the Food Executive was comparable with the Production Executive that controlled Australia's 'total mobilisation'. That may seem somewhat of an exaggeration of the Food Council's powers and usefulness. However, the reasons behind the Food Council's elevation to crucial national importance became abundantly apparent in the 1943–45 period.

### **Australia 1943–45: Over-Mobilisation Blues**

In late 1942 and into early 1943, the war started to discernibly shift in favour of the Allies. The battles of El Alamein and Stalingrad marked major turning points in the war against Germany. Against Japan, the successes at Milne Bay, Kokoda, Guadalcanal, Coral Sea and Midway caused a decisive change in Australian political and military thinking.

Simultaneously, however, indications arose that 1942's dramatic lunge towards a fully mobilised war economy had gone too far. In the early stage of the war against Japan, the armed forces and other areas of the war sector of the economy had been significantly expanded, but more in haste than with careful planning. Australia was now becoming over-committed with plans for the armed forces, munitions, aircraft supply, general war production and support for allies beyond national capacity.

A reconsideration meant that by mid-1943 the third and final phase of Australia's wartime mobilisation was begun. There was now no evident direct danger to Australia and a belief in ultimate victory was growing. Strategic thinking moved from focusing on the defence of Australia to the offensive, and the importance of Australia as a support base. Government policymaking became steadily more interested in post-war reconstruction planning.

## **Mobilisation Observations**

### **Over-Mobilisation's Impact**

In 1943–45, the Australian war effort had rather unexpectedly developed to include being a major supplier of foodstuffs, materials and manufactured products to the growing Allied forces (mostly American) being assembled for the defeat of Japan. This role, combined with the increasing supply demands of Australia's own expanding armed forces was significantly stretching what even total mobilisation could deliver.

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### **There was growing uneasiness that Australia might need to choose between ending the war as a fighting ally or as a general provedore.**

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These tensions saw the Australian Government across 1943–45 needing to balance three different competing demands on national resources. First, the Government and the people expected their armed forces to play a prominent part both in the military defeat of Japan and at the surrender negotiations. Second, Australia had significant commitments under reciprocal aid to support US forces as they moved north. Third, the Australian people sought relief from the austerity of 1942–43.

Some in the United Kingdom and United States argued that Australia's best way to contribute to the war effort was to substantially reduce its military involvement and free up personnel to increase indirect war production. The United States argued that Australia was the natural supply base for the Pacific region. In 1942 and into 1943, Australian production capabilities had been developed specifically to meet a wide range of US armed force needs. With more personnel, these capabilities could operate to full capacity.

This line of reasoning appealed to the United Kingdom as the war in Europe dragged on with food and other supplies dwindling. Moreover, and as discussed further in this chapter, continuing and, if possible, increasing Australian reciprocal aid provided to US forces strengthened the UK case for receiving further Lend-Lease goods. While it was unlikely Australia would withdraw from direct military involvement, on efficiency grounds there seemed a reasonable case for rebalancing Australia's war effort.

Rebalancing was being forced upon the Government not just from external demands but also from internal workforce changes. In 1943 Australia's workforce limits had been reached with the amount of available labour

<sup>72</sup> Hasluck, *The Government and the People, 1942–1945*, p. 242.

no longer growing for the first time since the start of the war. Moreover, the efficiency of the civilian workforce was starting to decline partly due to the increased average age of workers, and the deterioration in the stock of capital equipment.

These pressures eventually led to a decision on rebalancing in October 1943. The War Cabinet decided 40,000 men were to be released from the armed forces and munitions production and redirected towards food production and other high-priority requirements by June 1944.

The War Cabinet's move was too late and not large enough to reduce the escalating claims on Australia's dwindling resources. The result of this inability to better balance demand and supply was felt principally by the civilian sector. Living standards were probably at their lowest point at the end of the war.

This failure at the strategic level in national mobilisation decision-making throws up two important issues.

First, there was a significant failure in decision-making. Hasluck on examination of the historical evidence determined that the mobilisation rebalancing decision seemed to have been made based on changes in resource demand, not from a reappraisal of the strategic situation and Australia's ambitions within that. The most intensive use of the nation's total workforce was not in 1942 when invasion threatened and the call was for skilled warfighters. Instead, the greatest use was in 1943 when total demand multiplied across all sectors of the economy. Hasluck suggested that the mobilisation decision needed to be guided by a single question: 'in the present situation and having regard to our present resources and obligations what can Australia best do to help win the war'.<sup>73</sup>

The second issue is more mundane. The War Cabinet regarded control of the workforce as fundamentally a political question. It was not a problem to be solved administratively. Making workforce management a political question meant that the answers each time were somewhat unpredictable. The War Cabinet considered workforce control to be the control of idiosyncratic human beings. They inherently could not be managed through mathematical calculations as other resource stockpiles like rubber or reserves of iron ore could be. Workforce questions could only be approached politically.

### ***Reciprocal Aid's Domestic Impacts***

Lend-Lease filled a vital gap in Australia's industrial capacity. Most imports under the program were concentrated in the defence supply categories Australia was notably deficient: military equipment (especially aircraft, fighting vehicles, heavy armaments and ammunition), transport equipment (especially motor vehicles and train engines), industrial equipment and metals (especially machine tools and tin plate), and petroleum. However, Lend-Lease also assisted in developing Australia's manufacturing capacity, particularly in the production of new types of more complicated goods, including harvesters, electronic parts and can-making. Such improvements were successfully argued for as they enhanced Australia's ability to provide US forces with reciprocal aid.

The gains from the mutual aid program were not evenly distributed across 1942–45. In 1942–43 the program was at its peak, but this changed in 1944–45 as the main theatres of war moved from New Guinea to the Philippines and the Central Pacific Islands. US forces shifted some supply demands to US manufacturers; however, Australia's workforce problems noticeably impacted. By mid-1943, Australia's over-commitment of personnel to the armed forces prevented adequate production of the commodities Australia was well-suited to supply. This was especially so with US demands for food that could not be fully satisfied mainly due to an acute shortage of rural labour, although drought further aggravated the situation. The Australian component of United States Army food consumption fell from about 95 per cent in 1942–43 to about 50 per cent in 1944–45.<sup>74</sup>

Australian agriculture was problematic during the Second World War. In the 1939–41 period the rural workforce fell 30 per cent. Soldiers and prisoners of war were needed from 1942 to partly make up the shortfall. Australia's agricultural sector had only limited mechanisation at the war's start and so this workforce decline could not be fully offset. Little agricultural machinery was made in Australia; reliance was instead placed on machinery imported from the US, which was erratic given the higher priority accorded to military equipment. The result was that Australia's agricultural productivity was poor throughout the whole war.

In contrast, in the United Kingdom there was a boom in farm tractor manufacture. UK agricultural productivity actually improved as the rural workforce declined.

<sup>73</sup> Ibid., p. 296.

<sup>74</sup> Butlin and Schedvin, *War Economy 1942–1945*, p. 130.



There was a similar pattern in New Zealand, which had better access to US farm machinery imports than Australia.<sup>75</sup>

### **Reciprocal Aid's UK Dimension**

America's Lend-Lease Act was instigated to help address the United Kingdom's financial problems in 1940. The United States assumed the UK Government represented all parts of the Commonwealth and so all Australian Lend-Lease requisitions were channelled through the British Purchasing Commission in Washington. More than half of Lend-Lease exports went to the United Kingdom (62 per cent), with Russia (24 per cent) the next most significant recipient. Australia received only some 3.3 per cent.

The reverse was true of reciprocal aid, with Australia (and New Zealand) playing a strategically and politically important role. The United Kingdom was unable to contribute as much reciprocal aid as was received under Lend-Lease. The US Government, though, was under Congressional pressure from 1943 until the end of the war to reduce Lend-Lease and increase reciprocal aid. As the war progressed, the Roosevelt Administration increasingly used reciprocal aid figures to appease Congressional concerns. In this, the comparatively large contribution from Australasia played a key role.

### **Finance**

By 1943 the Government had devised a well-integrated economic package designed to achieve and maintain the maximum transfer of civilian resources into war purposes. While in 1939–41 borrowing dominated, by 1943 the financial burden had been rebalanced by increasing total taxation, cutting civilian consumption and reducing borrowing.

Public sector activity was reduced mainly by sharply cutting public works not related to the war. General administration, education and social service expenditure remained stable across 1943–45. In the private sector, investment was severely curtailed through capital issues, financial controls and direct control by way of permits for construction, restriction on supplies of materials and equipment, and the transfer of labour to the armed forces and war production.

**By early 1943 the Government through its rules and regulations had gained control over much of society. National mobilisation decision-making was highly centralised within small overlapping groups of federal ministers. Australia was more a command economy 'than in any period since the end of convict transportation'.<sup>76</sup>**

### **Australia 1951–56: Old Wars Redux**

In June 1950 war started in Korea and quickly involved Australia in a modest way. This war was just one embedded within the much larger geostrategic conflict of the early Cold War. In these years, tensions ran high as a bellicose Soviet Union ruled by Josef Stalin flexed its military muscles, developed nuclear weapons and sought to shape world affairs in its favour. In March 1951 Prime Minister Menzies addressed federal parliament:<sup>77</sup>

*The dangers of war have increased considerably. It is my belief that the state of the world is such that we cannot, and must not, give ourselves more than three years in which to get ready to defend ourselves. Indeed, three years is a liberal estimate. ... Let me be clear. I am not prophesying war. I merely point out that there is an imminent danger of one, and that against that imminent danger we must be prepared, and in time.*

This position was shared elsewhere, with the United Kingdom proposing to spend 13 per cent of its national income on defence in 1951–52 and the United States 20 per cent.

From Australia's perspective, the postulated global war would involve sending expeditionary forces offshore, possibly to the Middle East and South East Asia. Long-range Soviet submarines might attack Australian shipping, and there could 'conceivably be some sporadic or isolated air attack'.<sup>78</sup> But there was no risk of invasion. This analysis was reminiscent of the 1914–18 and 1939–41 periods.

With echoes more of 1943–45, Australia's importance as a main support area was highlighted. In August 1951, Australia had discussions with the US that indicated that in the event of major war, the United States expected Australia to feed 1 million US servicemen in the Pacific in addition to deployed Commonwealth

<sup>75</sup> Alan S. Milward, *War, Economy and Society 1939–1945*, Berkeley: University of California Press, 1979, pp. 289–291.

<sup>76</sup> Butlin and Schedvin, *War Economy 1942–1945*, p. 344.

<sup>77</sup> Robert Menzies, 'Prime Ministers Conference, London 1951', *House of Representatives, Official Hansard*, No. 10, 1951, Wednesday, 7 March 1951, 19th Parliament 1st Session 3rd Period, p. 78.

<sup>78</sup> *Ibid.*, p. 78.

forces, the United Kingdom and parts of Western Europe. In September 1951, Australia agreed with the United Kingdom that Australia's strategic supply role was to expand production of all major food products that in a war might feed the United Kingdom, much of Western Europe and possibly South Asia. Such ambitions would have required thousands more rural workers, although increased mechanisation might have eased this workforce burden.

In June 1952, Menzies agreed to give food high priority in both war and peace. The Government set food targets and then encouraged the states to speed up agricultural production. With Allied expectations of Australia's output growing, the Government sought to coordinate the envisaged Australian supply role with Allied military planners. Accordingly, the Government wanted Australians to be included in NATO war planning. The Government also unsuccessfully attempted to convince the United State to stockpile war material in Australia.<sup>79</sup>

## Mobilisation Observations

### **Organisational Innovation**

In December 1950 the Government established the National Security Resources Board (NSRB) intended to coordinate the departments most directly involved with war preparation and economic development. The prime minister chaired the NSRB and set about using it to review how to best balance the requirements for defence and development against the nation's resources. Defence and nation-building had become intertwined. The NSRB's review work involved examining the national mobilisation that would be necessary in the event of war, particularly in terms of determining the priorities between defence sector, development sector and the general civilian sector of the economy.

The NSRB quickly embarked on major fact-finding exercises with other government departments to generate analyses of Australian productivity and military activity and the potential expansion of both. As an example, the first meeting of the board discussed issues including the state of economy, US mobilisation plans, commodity control, capital issues control, rural industry bottlenecks, War Book preparations, stockpiling, and import licenses. In its three-year life, the board's two highest priority issues were power generation and food production.

In May 1951, the board decided that in time of war the nation's resources must be allocated to four sectors: the armed forces; munitions and supply; export supply (largely food and raw materials for allies); and lastly the civil economy on a wartime rationed basis. Like during the Second World War, the NSRB determined that the only way more resources could be found for increasing defence was by diverting resources away from civilian use. In considering a war starting somewhere in the 1952–56 period, the board realised there was little reserve workforce as the economy was operating under almost full employment. Moreover, with about 150,000 migrants arriving annually, the construction sector was booming. In the short term, migration was draining away resources from the nation's capacity to wage war.<sup>80</sup>

In a minor workforce initiative, the NSRB created a Committee on Scientific and Manpower Resources to examine methods of keeping track of scientists, engineers and agriculturists whose skills might be tapped for defence purposes in the event of war. Such a proposal reflected that, for Menzies, the national mobilisation problem was to a great degree an administrative one.

The NSRB was clearly a prime ministerial innovation. He gave it a wide mandate allowing the Board to investigate and ask questions of many powerful and resentful departments. The armed forces never liked it, especially after it implied that they were both profligate and unrealistic in their plans for expansion.<sup>81</sup> In reality, the NSRB spawned an unwieldy group of short-lived sub-committees, and its power was only advisory; Cabinet was the true decision-maker.

### **Defence Build-up**

The Government had already launched a revamped defence program in July 1950, so Menzies' three-year warning simply added urgency to it. In financial terms, defence spending rose from 2.9 per cent of GDP in 1949–50 to 5.1 per cent in 1952–53. In military output terms, at the end of the three years, the Army had some 150,000 personnel against 55,000 in June 1950, the Navy had seven more ships in service and the Air Force had expanded from about 10,000 personnel to almost 28,000 and included 350 new aircraft, mostly fighters, with Canberra bombers and new Sabre fighters about to enter production.

Considerable sums had been spent, but, when related to the vision of the imminent global war and its call

<sup>79</sup> David Lowe, *Menzies and the Great World Struggle: Australia's Cold War 1948–1954*, Sydney: UNSW Press, pp. 136–137.

<sup>80</sup> *Ibid.*, p. 138.

<sup>81</sup> *Ibid.*, p. 148.

for expeditionary forces, little had been achieved. At the end of the three years, 70 per cent of the defence budget was being allocated to operating costs, the initial wave of mobilisation had stalled, many raw material stockpiling programs were incomplete and the aim of maximum self-sufficiency was not being achieved. Moreover, with two battalions deployed to Korea there were not enough personnel or funding free to train the numbers of army recruits Menzies wanted. By the end of 1953, and with the Korean War involvement over, the armed services and the materiel for their mobilisation had expanded significantly, but they had shifted from focusing on preparing for imminent mobilisation to sustaining in-service capabilities. Menzies remarked: 'It was impossible for a democracy to go on indefinitely preparing for war'.<sup>82</sup>

### **War Book**

In October 1956, the Department of Defence published the *Commonwealth War Book: Summary of Important Action to be Taken by Government Departments*, classified at the Secret level. The 1956 War Book effectively replicated the 1939 War Book (discussed in the 1939–41 case study in Chapter 2), albeit this had not proven particularly helpful at that time.

The aim of the 1956 War Book was to facilitate the transition from peace to war by laying down actions to be taken by various departments and agencies in 'the early stages of a war emergency'. In this, the measures described in the War Book fell into two groups: those approved in advance that should be completed 'as far as possible automatically', and those to be referred to Cabinet when there was a threat or outbreak of war.<sup>83</sup>

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**In broad terms, the War Book was simply a wide-ranging checklist. Its chapters dealt with issues such as the armed forces, internal security, control of aliens, merchant marine security and questioning, war materials, economic warfare, censorship and the hiring of land buildings.**

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Noticeable in its brevity, though, was the sole chapter on the civilian sector of society that within its 12 pages concisely covered areas including manpower, agriculture, transport, fuel and power, prices and rationing, financial and economic policy, and control

of commodities. In a nod to Australia's main support base role in both world wars and in the 1951 war plans, the single page on food and agriculture highlighted that the objective in time of war was to maintain food supplies for Australia's civilian population, Australian and Allied armed forces, and the civilian populations of the United Kingdom and Allied countries.<sup>84</sup>

The War Book was all a bit too late. In 1954 the South-east Asia Treaty Organization had been formed to undertake the collective defence of South-East Asia, and Australia's armed forces were becoming deeply committed to this. The armed forces started transitioning away from preparing to send expeditionary forces to a third world war to instead preparing for participating in a broad range of possible regional conflicts.

### **Coda: Supporting Allies**

Australia has often dispatched expeditionary forces to fight overseas. In the cases discussed in this chapter, this tradition was somewhat reversed. In the 1942–45 period of fighting Japan, Australia became an important main support base for allies and friends, especially the United States and to some extent the United Kingdom. The support provided was wide-ranging including rations, uniforms, barracks, port facilities, airfields, hospital services, naval stores, small watercraft and more. In the 1951–56 period of the Cold War, the United States and the United Kingdom had expectations of Australia providing large food supplies if the Soviets attacked.

The support base concept has modern echoes. Frühling argues for a revival of the reciprocal aid program as the greater use of Australia by US forces as a support base area would strengthen Australian security. He takes the 1943–45 example further in suggesting that Australia's defence industry should be expanded in peacetime to include offering support services beyond equipment operated jointly by Australia and the United States to equipment solely operated by the US armed forces.<sup>85</sup>

Frühling's concept may have particular application to naval warships. In the 1942 and 1943–45 cases, shipbuilding became secondary to US and Australian ship repairs. Building warships in Australia is a protracted process and requires importing the majority of the combat systems and weapons. In contrast, ship repair could

<sup>82</sup> Robert Menzies in DPC 52/77 Minutes of Defence Preparations Committee meeting, 21 August 1952, quoted in *ibid.*, p. 146.

<sup>83</sup> *Commonwealth War Book: Summary of Important Action To Be Taken By Government Departments*, Copy 150, Melbourne: Department of Defence, October 1956, p. vii, para. 9.

<sup>84</sup> *Ibid.*, Chapter XVI, p. 5.

<sup>85</sup> Frühling, *Sovereign Defence Industry Capabilities*, p. 6.

quickly return badly needed naval warships to combat.

Extending the issue further, Frühling notes the gains from reciprocal aid concepts can cut both ways. While Australia may gain by increasing US dependence on it, Australia needs to also consider its dependence on the United States. He writes, 'the US is not above using allied dependence on US resupply to further their own political goals'.<sup>86</sup> In the 1943–45 and 1951–56 cases, some in the United States considered Australia could contribute to the Allied war effort more as a provider than through sending expeditionary forces. Developing Australia as a base support area for US armed forces could unintentionally distort Australian defence industry and the ADF's force structure.

Such concerns are implied in Brendan Thomas-Noone's concerns over the US National Technology and Industrial Base. This is a Congressionally-mandated policy framework designed to foster a defence free-trade area between the United States, Canada, Australia and the United Kingdom. The US defence export control regime, however, has stymied progress, impacting Australia's national support desires but also preventing Australia being a 'more capable strategic partner for the United States, with greater capability to respond to regional crisis, fill gaps in US defense supply chains and act as a regional maintenance hub'.<sup>87</sup>

Perhaps inadvertently, the United States may be shaping what type and scale of reciprocal aid Australia could provide in a future conflict. This could be shifting Australia somewhat towards the provider function that the nation flinched at in the 1943–45 and 1951–56 cases.

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**In a multipolar alternative future, Australia would be important to allies and adversaries, and this has substantial implications for national mobilisation. In terms of allies, it would guarantee support for an Australian national mobilisation even if in a form that the supporter thought advantageous to its own national interests. In terms of adversaries, an Australian national mobilisation would likely be directly threatened, distorted or disrupted by hostile actions.**

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Consequently, a large war in a multipolar alternative future would make major demands on Australian national mobilisation. Mobilisation could progressively evolve to a situation where it is total, there is full governmental control of society and the allocations of scarce resources are by decree not by the market. History suggests this situation is the most difficult from an Australian perspective.

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<sup>86</sup> Ibid.

<sup>87</sup> Brendan Thomas-Noone, *Ebbing Opportunity: Australia and the US National Technology and Industrial Base*, Sydney: United States Study Centre, 2019, p. 13.

## CHAPTER 4 - MOBILISATION IN A MULTILATERAL FUTURE

The multilateral alternative future is built around globalisation continuing. Over the last 100 years most of Australia's experience with national mobilisation has been at times when globalisation is in trouble. Such times come about when competing great powers are squabbling over world order, making major conflicts more likely.

Australia's national mobilisation experience in times of globalisation is limited. This reflects that while the armed forces may be deployed to foreign conflicts, these are wars of choice where the type and pace of involvement can be deliberately modulated. Australia's armed forces can fight in these (for Australia) limited conflicts without significantly altering the peacetime balance between the defence sector and the civilian sector.

Even so, the support of Australian forces fighting in these limited wars does provide some useful insights. There are mobilisation issues even if they are sometimes buried within broader support issues. In this, logistics is inevitably the principal problem in supporting Australia's armed forces fighting in such conflicts. It is the movement of supplies from Australia to the units deployed in the field that overwhelmingly has created the most issues rather than any difficulties the national support base has in generating workforce, material or money.

This chapter concerning multilateral futures discusses East Timor 1999 and Iraq 2003. East Timor was Australia's largest recent deployment and, being geographically close to Australia, made some use of the national support base. Iraq differed in involving a small Australian niche force contribution fighting as part of a much larger, principally US, force in a distant location.

### Australia 1999: Just in Time, Mostly

In late 1999 the UN-authorized force, INTERFET, consisting mainly of ADF personnel, was deployed to East Timor to establish and maintain peace in the wake of an independence referendum. This intervention was not one that the ADF had planned for or which the extant strategic guidance envisaged.

**In the 1980s the ADF had adopted defence of Australia doctrines that de-emphasised sending large expeditionary forces offshore. In the 1990s the focus shifted towards making such a force posture more efficient. A major way to achieve this was perceived as rebalancing the ADF so that many logistics and support functions were undertaken by contractors and commercial firms who were considered lower cost.**

Reducing the numbers of military personnel by replacing them with civilians was expected to save money, which could then be redirected into combat force modernisation.

The result was that the Army's logistics capabilities and capacities was significantly outsourced with only limited provision made for the possibility of operations offshore where Australian contractors and commercial firms might not operate or, it being hostile territory wish to operate in. The 1999 timing was doubly unfortunate in that the transition of the various logistics and support agencies and organisations from being mainly military to a blend of military and civilian was incomplete, imperfect and untested. Military historian Bob Breen wrote:<sup>88</sup>

*Specialist services, such as movements, stevedoring, water transport, petroleum operations and postal and amenities services, had been cut or no longer existed. There was no deployable logistic force headquarters. Logisticians in Canberra, Brisbane and Sydney had been decimated as a result of the Force Structure Review, Commercial Support Program and the logistic redevelopment projects of the early 1990s. ... There was no surge capacity to support offshore operations. There was little stock on depot shelves anywhere in Australia in many classes of supply, because ADF force sustainment was based on purchasing items commercially and distributing them to units 'just in time'.*

A report to the Chiefs of Staff Committee in September 2000 concisely summed up the issue: 'There is an imbalance between the ADF's combat capability and

<sup>88</sup> Bob Breen, *Struggling for Self Reliance: Four Case Studies of Australian Regional Force Projection in the Late 1980s and the 1990s*, Canberra: ANU E Press, p. 146.

<sup>89</sup> COSC Agendum No 23/00: National Support and Theatre Sustainment – Lessons from East Timor, quoted in *Management of Australian Defence Force Deployments to East Timor*, The Auditor-General, Audit Report No. 38, Canberra: Commonwealth of Australia, 2002, p. 57.

<sup>90</sup> *Ibid.*, p. 77.

its organic logistics support capability.<sup>89</sup> Beyond this significant problem, logistic staff assessed that the Australian industry made good efforts to meet Defence's East Timor requirements.<sup>90</sup>

## **Mobilisation Observations**

### ***Planning and Preparation***

Compartmentalisation of information and restrictions on starting force preparation prevented early notification to the defence industrial base of a forthcoming increased rate-of-effort. Increasing production tempo can have long lead times and, in a globalised world, some components may need to come from overseas, adding shipping time. Problems created by being unable to start warming up the national support base were exacerbated by the ADF's low stock holdings of many items.

The low stockholdings were the product of several factors.

First, in line with best commercial practice, there was a general defence logistic policy of 'just-in-time' acquisitions rather than having large stocks of 'just-in-case' items.

Second, even using just-in-time principles there should still have been contingency stockholdings. These had not been established as no agreement was able to be reached within Defence on military planning scenarios, agreed activity levels, usage rates, common approaches by each service to calculating reserve requirements, valid pricing data or lead times.<sup>91</sup>

Third, the pertinence of contingency stockholdings depends on the accuracy of the assumed planning scenarios. In the East Timor case, the ADF needed to support some coalition member contingents. This possibility had not been considered earlier.

Fourth, the ADF was not just deploying a force into East Timor but also working up other units to eventually replace the deployed units. In addition, there were demands on stockholdings from concurrent operations and other exercises.

Fifth, the outsourcing had reduced in-house understanding of usage rates. Stocks were generally quickly replaced from local sources, which prevented gaining knowledge of how many were being regularly used for certain rates of effort.

Sixth, some equipment was old or no longer in production. Replacement parts needed to be specially ordered and so had long lead times. Once an initial stockholding was used up, replenishment was a protracted affair.<sup>92</sup>

Lastly, during the initial phases of UN activity in East Timor but before the ADF deployment, demand on local supplies at the nearest major town in Northern Australia by UNAMET (the much smaller antecedent to INTERFET) led to local stocks of many items being exhausted.

### ***Organisational Arrangements***

There is an inherent tension in having low stockholdings and then not activating the national support base early in the operational planning cycle. In such situations, having multiple in-place defence industry networks useful across a wide variety of situations may be advantageous.

At the time there were two civil/military supply networks in place in Darwin: the main departure point for East Timor and the small capital city of the Northern Territory. The networks were INDEF (Industry-Defence), which was a Northern Command-sponsored initiative, and a network established by the Defence Material Organisation (DMO) Regional Office. Both networks were established to facilitate the military procurement process.

The local Northern Territory industry support base perceived the DMO Regional Office's role as pivotal, but on the military side the office was overlooked in favour of INDEF. The Australian National Audit Office noted that in retrospect this disconnection was regrettable. Using the DMO Office would have ensured more timely, accurate and consistent information flows, assisted maximising locally procured support, and taken best advantage of industry offers made via this network to voluntarily withhold stocks of high-demand items for possible ADF use later. An example was the opportunity of withholding generators that were then unavailable when the operation required them, which then needed to be sourced from southern Australia.<sup>93</sup>

The support provided by the local commercial support base to the ADF's Timor deployment highlighted the importance of having agreed, tested and adequately practised contractual arrangements in place. The local elements of the national support base needed to be

<sup>91</sup> Ibid., pp. 79–81.

<sup>92</sup> Ibid., pp. 74–79.

<sup>93</sup> Ibid., p. 84.

carefully integrated into the overall supply chain to ensure they were making the best use of local capabilities and resources.

### **Australia 2003: Using Others' National Support Bases**

Australia participated in the 2003 US-led invasion of Iraq. This was an unusual conflict as there was significant warning of the event and in particular the start of military operations. This advantage was not to everyone's benefit. There were again issues of compartmentalisation of information preventing the Australian national support base from being fully activated before the war commenced. However, Australia's involvement was intended to be supported by other nations' national support bases not Australia's, so this was less problematic than in most conflicts.

Several issues arose from outsourcing the national support base. However, the short duration of the invasion, the operational plan being implemented almost unhindered and the lack of significant adversary response minimised most impacts.

### **Mobilisation Observations**

#### **Exploiting Foreign Mobilisations**

The strategic-level guidance concerning the ADF deployment to the Middle East Area of Operations (MEAO) was to minimise the in-theatre logistic footprint. When two or three sources could provide the same support, units were to favour non-Australian sources. The source priorities, in descending priority, were: in-theatre commercial, coalition partners, coalition-arranged contractor, host nation, and lastly the Australian national support base. The support arrangements covered materials and the full range of services. Ideally, the only demands that the task groups were to place with the national support base were for Australian-specific items, or for items not available within the MEAO.<sup>94</sup>

**Commercial Suppliers.** Standing contracts were negotiated with commercial suppliers with a long presence in the region. The key companies contracted were Inchcape Shipping Services, Seven Seas and Superior Foods. In practice, accessing contractor support was hampered by the ADF's relative lack of purchasing power when compared to the scale of the US and UK deployments. From the contractor's perspective, Australia's coalition partners were more attractive

customers due to the potential for greater profit.

Moreover, the arrival of major US forces in the region, and thus in the marketplace, forced up the price on what were earlier readily available items. For example, CENTCOM acquired thousands of 20-foot containers, pushing up prices four-fold. In contrast, the ADF needed just a handful.

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**Contractors – even those with whom Australia had a standing contract – tended to receive ADF demands with less enthusiasm than those submitted by US logisticians.<sup>95</sup>**

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Lastly, the usefulness of contractors was further limited if the ADF unit concerned was distant from major population centres.

**Coalition Partners.** The extent of support to be provided to Australian units by coalition partners had been agreed to in pre-war planning. There are some doubts though if Australia's forward deployed forces would have continued receiving the agreed support had the war gone on longer, or reached a more intensive level. If there is an unexpected battlefield event, relying on other nations for critical support needs could be problematic. In practice, coalition supply sources tended to prioritise supplying own-nation forces over others. One small ADF unit, Clearance Diving Team 3, was particularly disadvantaged this way and felt somewhat abandoned.

The ADF had been interested pre-war in deploying the Australian Light Armoured Vehicle (LAV), a wheeled reconnaissance vehicle broadly similar to the US Marine Corp (USMC) LAV. The reliance on other nations' support bases, though, meant that it could only be deployed if the USMC's support base could be accessed. In the event, planners discovered that the similarity between the Australian and USMC vehicles was superficial. Instead of leveraging off the USMC's supply chain, the ADF would have to put its own logistic support in place, reaching back to Australia for spare parts and repairable items. The LAV was accordingly not deployed. Australian military operations were circumscribed through the policy of relying on others.<sup>96</sup>

**Host Nations.** The host nation support base was not of much practical use beyond access to local tradesmen. In general, the smaller economies of the region were

<sup>94</sup> Albert Palazzo, *The Australian Army and the War in Iraq 2002–2010*, Canberra: Land Warfare Studies Centre, 2011, pp. 274–278, <[https://www.defence.gov.au/FOI/Docs/Disclosures/049\\_1617\\_Documents.pdf](https://www.defence.gov.au/FOI/Docs/Disclosures/049_1617_Documents.pdf)>.

<sup>95</sup> *Ibid.*, p. 276.

<sup>96</sup> *Ibid.*, pp. 159–160.

unable to meet the great surge in demand that resulted from the arrival of the coalition's main forces.<sup>97</sup>

Considering the various aspects, a post-conflict analysis by Defence concluded that:<sup>98</sup>

*The course of the war showed that the ADF maintains a reserve of key stores that is questionably low. In addition, the nation's manufacturing sector is too slow to respond in a timely manner to sudden increases in demand. Planners must reconsider their inventory management policies and liaise more closely throughout the national support base in order to provide greater depth of store-keeping and to facilitate urgent replacement purchases.*

### **Acquiring Equipment Quickly**

At the time, defence policy was to limit stockholdings on the understanding that supplies could be obtained from the global market if, and when, required. In the 2002–03 period there were two problems with this market-based approach. First, Australia was now in competition with much larger and better-funded military organisations wanting the same materials and critical items. In a crisis, prices can escalate rapidly. Second, the Australian national support base had been scaled and resourced on the regular peacetime rate of effort. Responding to the suddenly increased demand therefore first meant adding extra production capacity at the manufacturing facilities of both prime and sub-contractors. This took time and suggested to some that Australian industry lacked responsiveness.<sup>99</sup>

Additionally, much of the equipment the ADF sought was US-built. Most governments restrict defence equipment exports and impose onerous rules and regulations. Some of the defence items that were essential to Australia deploying required actively exploiting the country's special relationship with the US beyond the normal interaction. An additional complication was that Congressional approval is necessary to buy US defence equipment; a special dispensation is needed to be obtained from Congress under the Foreign Military Sales Program.

### **Australia's ability to access equipment quickly was both a function of having a close strategic relationship with the US but also having close personal relationships.**

Defence's analysis stressed that:<sup>100</sup>

*the posting of Australian liaison officers to key US headquarters and the intersession of defence staff from the Australian Embassy in Washington helped to lubricate personal approaches. These officers had already established favourable contacts and working relations with their opposites.*

Beyond the United States, there were also problems acquiring equipment from other countries. Australia entered the global marketplace simultaneously with other coalition partners and, in particular, the US and the UK also attempting to rapidly increase stockholdings and address force deficiencies. Some countries were happy to assist Australia but some others were less forthcoming. There was, for example, a sudden worldwide shortage of body armour.<sup>101</sup>

Australia's limited purchasing power in the global marketplace further increased the country's dependence on its relationship with the US and to a lesser extent the UK. However, in some cases there simply were no stocks anywhere to be purchased and so the US armed forces passed to Australia some they had available. For example, the Australian Army's CH-47 helicopters needed ballistic armour and electronic countermeasures systems. The US Army removed the items from several of its aircraft and passed them to Australia.<sup>102</sup>

### **Coda: Hoping for the Best**

Both cases discussed in this chapter involved expeditionary force deployments, one very near Australia and the other to the Middle East. The East Timor case made limited use of national mobilisation, whereas in the Iraq case it was deliberately marginal. In the latter case, there was an expectation that just-in-time support could be provided by the global marketplace or allies.

<sup>97</sup> Ibid., pp. 276–277.

<sup>98</sup> Albert Palazzo, *Deploy, Sustain, Return: Australian Logistics and the War in Iraq*, Duntroon: Commonwealth of Australia, 2008, p. 153, <[https://www.defence.gov.au/FOI/Docs/Disclosures/027\\_1819\\_Docs.pdf](https://www.defence.gov.au/FOI/Docs/Disclosures/027_1819_Docs.pdf)>.

<sup>99</sup> Palazzo, *The Australian Army and the War in Iraq 2002–2010*, p. 271.

<sup>100</sup> Ibid., p. 268.

<sup>101</sup> Ibid., p. 266.

<sup>102</sup> Ibid., pp. 266–270.



In the East Timor case, considerable emphasis was placed on stockholdings perhaps without deep consideration. In the event, there were few contingency stockholdings, operational security prevented stockholding build-up pre-deployment, there were concurrent demands arising from other operations and exercises, there was little in-house understanding of usage rates, there was an unexpected need to also supply some coalition partners and for some items there were long lead times. The East Timor case further showed a need to establish and test that nearby Australian commercial support elements were properly integrated into the national support base to ensure local capabilities and resources are best used.

The Iraq 2003 case was quite different. Instead of using the Australian support base, the national support bases of other nations were accessed. The support was good but variable, with issues over timeliness and quality. Such an approach also constrained Australian operational options when it was realised that the build standard of some equipment operated by both Australian and US forces was not the same. Support for this ADF equipment by deployed US forces was not then possible, making its use in the Iraq war impractical.<sup>103</sup>

There were other issues created by relying on the international marketplace. Australia entered the global marketplace at the same time other coalition partners, in particular the United States and the United Kingdom, were also attempting to rapidly increase stockholdings and address force deficiencies. Some countries were happy to assist Australia but others were less forthcoming.

Cancian applies the idea of exploiting the global marketplace to the United States during a hypothetical great power war with high attrition of military equipment. In such a case, if US industry cannot very quickly build

equipment replacements, then the United States may be forced to aggressively enter the world market to acquire equipment wherever it can.

Such a situation occurred in the First World War when, with American national mobilisation flailing, the US Army quickly turned to France for military supplies. A comparable situation arose early in the COVID-19 pandemic response when the United States was, according to media reports, outbidding its allies and friends to gain personal protective equipment.<sup>104</sup>

Cancian provocatively argues that if:<sup>105</sup>

*US industry is unable to produce equipment in the numbers needed ... [and] the NATO allies may be engaged themselves, or building up their own armed forces, the United States [will] need to go to other countries. Brazil would be a good example, since it has a mature arms industry. Radical measures, like offering to buy the Egyptian and Moroccan tank forces, would be warranted. That sounds silly, but they have a lot of American tanks that could be incorporated quickly into the US Army.*

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**An Australian national mobilisation in a multilateral future would be the minimum practical compared to the other futures. The levels of government control of society would be little changed from peacetime with resource allocations still determined by the market.**

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The sting in the limited national mobilisation tail is that Australia's strategic options and operational actions would be shaped and constrained by resource availability. Military strategy would be driven mainly by how much mobilisation could be readily undertaken without noticeably impacting society rather than by the policy outcomes sought.

<sup>103</sup> Palazzo, *The Australian Army and the War in Iraq 2002–2010*, pp. 159–160.

<sup>104</sup> 'Coronavirus: US accused of "piracy" over mask "confiscation"', *BBC News*, 4 April 2020, <<https://www.bbc.com/news/world-52161995>>.

<sup>105</sup> Cancian, 'Long Wars and Industrial Mobilization'.

## CHAPTER 5 - MOBILISATION IN A NETWORKED FUTURE

The networked alternative future involves globalisation deepening. While long-distance trading has a long history, globalisation is generally considered to have arisen during the 19th century. Across this time, the international system became progressively more homogenous with the complex forms of sovereignty evident before 1800, gradually replaced by states remarkably uniform in their purpose, structure and processes. Such homogeneity allowed more extensive political, societal, commercial and financial linkages across the complete international system than ever before.<sup>106</sup>

This first era of globalisation is considered to have ended with the First World War and the Great Depression, with the second era beginning in 1944, deepening in 1989 with the end of the Cold War, and continuing today.<sup>107</sup> This means that there are no clear historical examples of war in a more globalised world than today. Nevertheless, such a future is clearly possible and, given this paper rests on the future being uncertain, needs inclusion. Accepting this, two cases are discussed that in their own way bring out insights useful perhaps in all futures.

The first case discussed is the Wrigley Report of 1990. This was the most recent time that the Australian Government decided to seriously examine national mobilisation; it has not done so since. The second case is the US national mobilisation in the 1939–41 period before it formally joined the Second World War.

A key element in the networked future is that the Government is not all-powerful. Instead, to achieve their objectives governments need to work with diverse and dissimilar groups including large commercial organisations, civil society groups and non-government organisations. In undertaking national mobilisation, this presents some interesting challenges.

### 1990 Wrigley Report: Putting National Mobilisation First

By the late 1980s, Australia's defence posture had moved away from providing expeditionary forces to fight alongside great power allies into the defence of

Australia from Australia. This reflected the 1968 US Guam Doctrine that, shaped by the Vietnam War, instructed allies they should be self-reliant in terms of providing combat forces for their own defence. Cognizant of this, the 1987 Defence White Paper set out the capabilities the future ADF should have and the kind of operations it should prepare for.

This White Paper was the basis upon which Defence Minister Kim Beazley commissioned Alan Wrigley in May 1989 to study two so-far-unexamined issues. The first was how to involve the community in the defence of the country and thus broaden the total support base for national defence. The second was to identify efficiencies from better using capabilities and capacities resident within the Australian community. The terms of reference emphasised the need to determine how a more extensive use of civil infrastructure might enhance defence against both low level and more substantial military threats.<sup>108</sup>

The report was to look out to 2000 when the ADF created by the 1987 Defence White Paper would be operational. The White Paper's intellectual foundation, the 1986 Dibb Report, had been criticised for arguing that Australia would have 8–10 years' warning of the possibility of a major military attack. Wrigley considered he could address that critique by devising 'a defence force posture which gave more attention to expansion or mobilisation planning, not in the 10-year timescale but something rather shorter'.<sup>109</sup>

Wrigley considered the extant force structure model had two flaws. First, it was based on providing expeditionary forces that would fight overseas in areas with very limited support capabilities. The expeditionary forces accordingly had to include these capabilities in its force structure. However, if fighting in and from Australia, the situation changed. Many of these support capabilities were resident in the Australian community already and did not need to also be included in the ADF. Second, the ADF had a 'come-as-you-are' mindset to waging war. This meant that national mobilisation was held to have no practical usefulness, being too costly to undertake and taking too long, in the order

<sup>106</sup> C.A. Bayly, *The Birth of the Modern World 1780–1914: Global Connections and Comparisons*, Malden: Blackwell Publishing, 2004, pp. 451–487.

<sup>107</sup> Harold James, *The End of Globalisation: Lessons from the Great Depression*, Cambridge: Harvard University Press, 2001, pp. 1–30; Michael D. Bordo, *The Second Era Of Globalization is Not Yet Over: An Historical Perspective*, Cambridge: National Bureau Of Economic Research, 2017, pp. 8–12.

<sup>108</sup> Alan K. Wrigley, *The Defence Force and the Community: A Partnership in Australia's Defence: Report to the Minister for Defence*, Canberra: Australian Government Publishing Service, 1990, pp. 539–540.

<sup>109</sup> *Ibid.*, p. 54.

of decades. Wrigley believed this ‘doctrine of despair’ had seen Australian strategic thinkers unnecessarily overlook what could be done with graduations in the readiness of different force elements.

Wrigley suggested a sovereignty defence posture to replace the expeditionary one. His alternative force model proposed a revitalised, more capable reserve force replacing some regular units. His model had combat forces split into regular and reserves, with the regulars being maintained at high readiness states and the reserves at lower readiness. Mobilisation in time of crisis or war would then bring the reserve units and forces up to the higher readiness states needed for combat operations.

The regulars would handle the short-notice ‘constabulary’ tasks while reserves would focus on preparing for major war combat operations. The equipment the regulars and the reserves used would be assigned accordingly, with the more sophisticated high-end military equipment probably in the reserve.<sup>110</sup>

Accompanying this, he proposed contracting out many ‘quasi-civilian activities’ carried out by military personnel in the extant expeditionary force structure. These areas for civilianisation were wide-ranging and included: individual training, maintenance and repairs, base facilities functions, strategic communications, intelligence, supply, warehousing, land and air transport, health services, mapping, data collection, and fire-fighting.

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**The combination of the greater use of reserves, reduction in professional force size and the privatisation of many functions aimed to blur the then sharp boundary between the civilian and the military domains. This was a total defence approach where the Department of Defence would have more than solely military interests.**

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Wrigley wrote that the department:<sup>112</sup>

*[in] working to implement such policies would concern itself with other Commonwealth authorities and foreign, state and local governments as well as with the corporate sector most prominent in the national infrastructure. It would concern itself too with coming to grips more with the capacities of the wider community and many special interests within it upon*

*which the armed forces would be entirely dependent for their ability to defend the country.*

Reversing this perspective and looking from the outside, he saw merit in establishing an across-government agency that defined responsibilities, coordinated planning, communicated across functions and possibly managed some emergency situations. The defence of Australia in involving more than military forces now became more than just the responsibility of Defence. Drawing on a perspective of US President Eisenhower, Wrigley wrote: ‘The core role of the military profession [is] not to fight the nation’s wars on its own, but work as part of a “national security team”’.<sup>113</sup>

Wrigley considered his proposed model offered some advantages for the same budget. The alternative force model could potentially handle the short-notice constabulary tasks and then, after a 6–12 month mobilisation, provide a rate of effort 30–100 per cent larger than the existing come-as-you-are expeditionary model. He also stated what his model could not do: ‘Governments would need to set aside [the] requirement to be able to conduct large scale independent operations beyond the effective reach of Australia’s supporting national infrastructure.’<sup>114</sup>

### **US 1939–41: Mobilisation through Carrots**

Five days after the United Kingdom and France declared war on Germany, US President Roosevelt announced a limited national emergency. US national mobilisation began, even if slowly and not openly. After the fall of France in mid-1940, mobilisation ramped up considerably, becoming America’s most pressing national objective. This 18-month period between then and late 1941, when the Japanese attacked, has since become known as the ‘defense period’. The period 1939–41 was a time of weak mobilisation agencies, a recalcitrant corporate business community and armed services that both advanced and retarded the mobilisation process.

Across 1939–41, the mobilisation effort was noticeably confused and uncoordinated. The ‘remarkable proliferation of defense planning agencies ... [although] weak and fumbling in power and procedures’ and the increased levels of mobilisation fitted with the deteriorating international conditions. However, the mobilisation was ad hoc, described by Eliot Janeway

<sup>110</sup> Ibid., pp. 145–196.

<sup>111</sup> Ibid., pp. xiii–xiv.

<sup>112</sup> Ibid., p. 458.

<sup>113</sup> Ibid., p. 335.

<sup>114</sup> Ibid., p. 487.

as 'control by no one'. Control over production was unconnected to control over prices, interagency conflict was widespread and the armed forces constantly feuded with the new Office of Production Management (OPM), which was meant to provide the centralised direction of defence equipment production and federal procurement programs.<sup>115</sup>

The OPM had been established in December 1940, joining the National Defense Advisory Commission (NDAC) created earlier in May 1940. The NDAC was to control industrial production, raw materials, employment, farm products, transportation, price stabilisation and consumer protection. Both agencies proved ineffective, making little progress in shifting industry into defence production. Most defence manufacturing was instead accomplished in addition to normal civilian production and through new or enlarged facilities. Basic industries like steel, aluminium and magnesium were not expanded as desired.

In a small success, the NDAC and OPM did manage to persuade the armed forces to raise their extremely low stated material requirements for addressing various contingencies and threats. The estimated material demands provided were, however, inconsistent and thus eventually judged unreliable. The armed services assumed that the US economy and society could meet any level of demand, making accuracy on their part unnecessary.<sup>116</sup>

The president also decided not to implement the latest Industrial Mobilisation Plan. After the First World War, an Assistant Secretary of War had been established within the War Department (i.e. the Department of the Army) to develop and maintain the nation's detailed mobilisation plan. The intent was to ensure the shambolic First World War mobilisation was not repeated.<sup>117</sup> Considerable effort was put into developing several plans, each succeeding the next, but the somewhat insular approach meant the final plan, the 1939 Industrial Mobilisation Plan, was deemed both politically unacceptable and flawed when finally required.<sup>118</sup>

In late 1940, the first peacetime conscription in American history began. Draftees selected by national lottery

served full-time for one year and then completed a further 10 years in the reserves. Conscripts served only in the Western Hemisphere, or in US possessions and territories worldwide.

Overall, across 1939–41 there were several mobilisation planning and agency failures and apparent administrative chaos. However, the 1939–41 mobilisation helped ensure the United States was better prepared than it might have been when it formally entered the Second World War in late 1941. Indeed, while the 1939 Industrial Mobilisation Plan was not embraced, its essential form was arguably adopted in 1943 when circumstances were more propitious and the demand more pressing.<sup>119</sup>

## Mobilisation Observations

### *Mobilisation Planning*

In broad terms, the Army General Staff's responsibility was to determine what military equipment and supplies were needed, how much and when. These assessments were then passed to the Assistant Secretary of War, who was responsible for procurement and, more difficult, to plan national mobilisation. In the interwar times of limited funding and the Great Depression, current expenses of the Army were generally given preference to any mobilisation planning activities. Even so, under the *National Defense Act 1920*, the Assistant Secretary was charged by Congress with devising ways to integrate the whole industrial capacity of the United States into a single efficiently functioning machine serving the armed forces.<sup>120</sup>

The War Department did significant planning for mobilisation in the interwar period, including training large numbers of Army officers, who it envisaged would take over running the US economy from industrialists and business executives in times of war. This remarkable over-reach may have arisen because the *National Defense Act* directed the Office of the Assistant Secretary of War to prepare such a plan. The War Department it seems took the Act's wording literally with the Industrial Mobilisation Plan being prepared almost entirely by military agencies.

The 1939 Plan had a number of firsts. It now emphasised

<sup>115</sup> Donald L. Losman, Irene Kyriakopoulos, and J. Dawson Ahalt, 'The Economics of America's World War II Mobilization', in Alan Gropman (ed.), *The Big 'L': American Logistics in World War II*, Washington: National Defense University Press, 1997, p. 175.

<sup>116</sup> Paul A.C. Koistinen, 'Warfare and Power Relations in America: Mobilizing the World War II Economy', in James Titus (ed.), *The Home Front and War in the Twentieth Century: The American Experience in Comparative Perspective*, Washington: United States Air Force Academy and Office of Air Force History, 1984, p. 93.

<sup>117</sup> Marvin A. Kreidberg and Merton G. Henry, *History of Military Mobilization in the United States Army 1775–1945*, Washington: Department of the Army, 1955, pp. 493–494.

<sup>118</sup> *Ibid.*, pp. 682–694.

<sup>119</sup> Alan Gropman, 'Industrial Mobilization', in Gropman, *The Big 'L'*, p. 15.

<sup>120</sup> Kreidberg and Henry, *History of Military Mobilization*, pp. 493–494.

that industrial mobilisation would be under comprehensive civilian control. The solution envisaged was a single super-agency, the War Resources Administration, working for and under the president. All other parts of the Government would be required to accept and fully support the guiding priority policies set out by the now civilian War Resources Administrator. Also new was the broader view taken of mobilisation planning in considering both the nation's economy after the successful conclusion of a war and the necessity for spreading war contracts throughout the country.<sup>121</sup>

This broader view of mobilisation in the 1939 Plan extended to acknowledging for the first time the importance of allowing sufficient production to meet civilian demands, including that necessary to keep morale high. However, it did not address the issue in any depth. No studies were undertaken on which consumer goods should continue to be produced, in what amounts or at what factories. In practical terms, there was no planning done to correlate military production requirements with civilian requirements, a key omission that meant the overall mobilisation plan was inaccurate. Recognising this, industrialist John Martin wrote in late 1940 that in mobilisation:<sup>122</sup>

*The most difficult question is whether the enlarged capacity is sufficient for both military and civilian needs. There are certain basic civilian needs which have to be met, but exactly what these are is almost impossible to determine. They are not bare subsistence requirements, since certain other materials are necessary to maintain employment and morale.*

Across all the national mobilisation plans, including the 1939 Plan, there was a tendency to seek new legislation rather than try to employ existing legislation. The 1939 Plan decided that its proposed specialised mobilisation legislation should be passed in advance of war, so as to be ready to use immediately war was declared.

Notably, the draft national mobilisation bill provided in the plan's annexes was described as: 'A Bill to prevent profiteering in time of war and to equalize the burdens of war.' The elimination of profit, not military efficiency, appeared to have priority in mobilisation law – a position both critics of the plan and the public wanted. By the end of 1940, the preferred timing for the legislation

had drifted back towards earlier ideas about having mobilisation laws ready to be enacted only after war has broken out, and this eventuated.<sup>123</sup>

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**Worries about wartime profiteering were deeply held across American society.<sup>124</sup> A section of the 1939 Plan also advocated that during war a system of public finance should be implemented that absorbed all profits above a fair return as determined by Congress.**

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This system was to simultaneously ensure the adequate financing of the war and cause minimum disturbance to the existing US economic structure.

The 1939 Plan introduced a new concept of gradual mobilisation that passed through successive stages of increasing intensity rather than the earlier construct of full national mobilisation with no graduations commencing on the so-called M-day. The successive mobilisation stages envisaged were:

1. a period of US neutrality after a major war had begun or was imminent
2. a transition period with mobilisation covert in the first half and overt in the second half
3. the period when war began and national mobilisation went into maximum operation.<sup>125</sup>

In effect, the 1939–41 national mobilisation was the transition period described. The 1939–40 period was the covert first half and the overt second half 'defense period' from the fall of France in mid-1940 until December 1941.

Constructive criticism about the 1939 Plan and its predecessors was made by Bernard Baruch, the chairman of the War Industries Board that managed US economic mobilisation during the First World War. He felt the collection of data, industry surveys and most industry utilisation planning should be done by appropriate civilian industrial experts not military officers.<sup>126</sup>

A flaw that only become apparent over time and was not corrected until 1940 was the lack of skilled personnel within the Mobilisation Planning Branch to collate, evaluate and disseminate statistics. Facts and figures were accumulated, yet for many years there were no

<sup>121</sup> Ibid., pp. 532–533.

<sup>122</sup> John H. Martin, 'Present Status of Priorities', *Harvard Business Review*, Vol. 19, No. 3, Spring 1941, pp. 271–285, p. 279.

<sup>123</sup> Kreidberg and Henry, *History of Military Mobilization*, p. 538.

<sup>124</sup> In contrast, in Australia 'uniformity of sacrifice' was of more concern during the Second World War; Hasluck, *The Government and the People, 1942–1945*, pp. 628–629.

<sup>125</sup> Kreidberg and Henry, *History of Military Mobilization*, pp. 536–538.

<sup>126</sup> Ibid., pp. 515–517, 530.

means provided for weighing or correlating them. As a result, analysis was unsystematic.

In more recent years, Alan Gropman has provided a useful high-level critique of the interwar national mobilisation plans. He argues that the military and defence department civilians should not seek to control society and instead 'should be eager to let civilians run the economy and industry'. This is a role outside defence departments' competence and expertise, and would adversely distract them from their primary task of winning the war. Second, planners should include the potential needs of allies in national mobilisation planning. Third, domestic and partisan politics will continually intrude on decisions about mobilisation – and demobilisation. Political opposition parties and the public will constantly evaluate and critique the Government's mobilisation proposals and implementations.<sup>127</sup>

### **National Mobilisation Strategies**

The US mobilisation strategy can best be understood not in isolation but by contrasting it to the country's adversary: Nazi Germany. In war, national power cannot be judged in absolute terms but rather relative to the opponent.

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**In 1939–41, the United States mobilised by building armaments in depth rather than in width, the Germans the opposite. The United States initially allocated money and resources to build more factories. In contrast, the Germans mobilised by increasing the production rates at existing facilities.<sup>128</sup>**

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Germany planned for short decisive wars with victory to be achieved primarily by military prowess. Germany's Blitzkrieg aimed to secure victory before the adversary could affect its own mobilisation. Accordingly, Germany tended to emphasise the maximisation of specific kinds of short-term military power, reflected in the acquisition of particular weapons and combat stocks for immediate campaigns.<sup>129</sup>

If wars could be won quickly then deep investment in defence infrastructure was arguably unnecessary. Germany did not use its raw materials to build new munitions factories and instead built new weapons in existing factories that were retooled. In 1942, when Germany realised the war would be unexpectedly long, it began feverishly building factories. By this stage, the United States and its allies had already completed theirs.<sup>130</sup>

The mobilisation policies of the United States, United Kingdom and the USSR were similar in that all adopted a much more intensive rearmament pattern than that adopted by Germany. The Allies made relatively high resource allocations to mechanisation and re-equipment, compared with the German policy of creating a large fighting force based on only limited military stock building.<sup>131</sup>

### **Limits to Mobilisation**

In September 1941 a mobilisation study was undertaken by then Major Albert Wedemeyer in the US Army's War Plans Division that tried to determine the size of the US Army (which included the US Army Air Corps) necessary to wage the anticipated Second World War. Wedemeyer asserted in his study that there are broad, generic limits to any country's national mobilisation. He theorised that a country could not mobilise more than 10 per cent of its total population before cutting into its economic base and becoming less capable of supporting the overall war effort.<sup>132</sup>

This claim can be assessed against Australia's experience in 1942–43 when the country overexpanded its armed forces (see Chapter 3). At the March 1943 highpoint, Australia's armed forces were 12 per cent of the total Australian population, or 25.8 per cent of the overall national workforce.<sup>133</sup> In examining the United Kingdom, USSR and Germany in 1943, Harrison finds each were similar in terms of the overall national workforce: 22.3 per cent, 23 per cent and 23.4 per cent, respectively.<sup>134</sup> Australia would have needed to

<sup>127</sup> Gropman, 'Industrial Mobilization', p. 94.

<sup>128</sup> Ibid., p. 20.

<sup>129</sup> Mark Harrison, 'Resource Mobilization for World War II: The U.S.A., UK, U.S.S.R. and Germany, 1938–1945', *Economic History Review*, Vol. 41, No. 2, 1988, pp. 171–192, pp. 177–180.

<sup>130</sup> Alan Gropman, 'Introduction', in Gropman, *The Big 'L'*, p. xviii.

<sup>131</sup> Harrison, 'Resource Mobilization for World War II', p. 177.

<sup>132</sup> Jim Lacey, *Keep from All Thoughtful Men: How U.S. Economists Won World War II*, Annapolis: Naval Institute Press, 2011, p. 8.

<sup>133</sup> Other areas of interest in March 1943 were the defence industry sector at 7 per cent and the rural sector at 6 per cent of the national population; roughly double these figures gives their percentage of the national workforce. See Butlin, *War Economy 1939–1942*, p. 221.

<sup>134</sup> Harrison, 'Resource Mobilization for World War II', p. 189.

reduce its armed forces by about 75,000 to reach 23 per cent of the workforce rather than the 40,000 the Government chose. The assessment by Hasluck that a 40,000-troop reduction was insufficient appears to have some empirical basis.<sup>135</sup>

Wedemeyer's 10 per cent appears a useful rough rule of thumb, albeit 11 per cent may be sustainable in extremis. Harrison looks at the problem in a slightly different manner in noting that in Second World War Britain:<sup>136</sup>

*the maximum degree of mobilisation consistent with sustained effort seems to have been reached with each soldier matched roughly by one worker in the defence industries and two more workers retained in the civilian economy producing food, clothing, and other necessities for the war worker and soldier. Any further recruitment for fighting threatened to leave the war worker without necessities or the soldier without the means of combat.*

The limits of mobilisation could also be examined in terms of GDP. However, historical comparison is challenging as the definition of GDP varies, sometimes quite considerably. The record of the Second World War, the last time when major economies were fully mobilised, suggests a GDP range of 40–60 per cent, but the statistical basis used varies. As a rough rule of thumb, the October 1942 meeting of the US War Production Board decided: 'Whether any economy can devote much more than one-half of its output to war production is extremely doubtful.'<sup>137</sup> This seems a reasonable heuristic.

Such abstractions may seem esoteric but they can have major strategic planning consequences in highlighting the feasibility or not of military plans. In 1942, the US armed forces advocated opening 'a second front' in Europe in mid-1943. However, an economic examination quickly determined that meeting the military requirements of such an invasion would consume 75 per cent of GDP and need a national workforce 17 million people larger than available. The invasion of Europe, D-Day, was accordingly slipped to mid-1944 when GDP limitations and workforce size allowed.

### **Big Business-Led Mobilisation**

In the early 1940s, the administrative capacity of the US Government was relatively under-developed. The control of national mobilisation initially was undertaken using existing institutions that roughly balanced the 'power of big government, big business, big labour, and big agriculture'. The trend, though, was toward the constant narrowing of the decision-making base; by 1943, the giant corporations and the armed forces together shared full control of national mobilisation.<sup>138</sup>

The NADC and OPM created in 1940 appeared to give broad interest-group representation, but secondary industry was over-represented. Officials from large corporations and trade associations, serving for a dollar-a-year or without compensation, filled key executive positions and staffed the important Industry Advisory Committees.

The individuals concerned arguably made decisions that reflected the attitudes of their firms and organisations. Such attitudes included preferring to exploit the rapidly growing civilian markets rather than bid for defence contracts, fear of creating excess capacity or of disturbing intra-industry relationships, and uncertainty about the president's foreign and domestic policies. It must be remembered that all involved were greatly influenced by the economic and societal disasters of the just-finishing Great Depression.<sup>139</sup>

The US Government was disappointed by the general reluctance of producers to convert from civilian goods manufacture to military equipment. The continued production of private aircraft given sharply rising military demand particularly annoyed military staff and defence officials.<sup>140</sup> However, the Government depended on the cooperation of large corporations and private business people.

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**The Government could not mobilise by diktat but instead needed to bargain, effectively sharing power and embracing joint decision-making. Individuals with governmental authority did not possess knowledge of and control over technical matters, while those with technical knowledge and industrial control did not possess governmental authority.**

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<sup>135</sup> Hasluck, *The Government and the People, 1942–1945*, pp. 283–304.

<sup>136</sup> Harrison, 'Resource Mobilization for World War II', p. 191.

<sup>137</sup> Lacey, *Keep from All Thoughtful Men*, p. 196.

<sup>138</sup> Koistinen, 'Warfare and Power Relations in America', p. 91.

<sup>139</sup> Ibid.

<sup>140</sup> Robert D. Cuff, 'Commentary', in Titus, *The Home Front and War in the Twentieth Century*, pp. 115–116.

Secretary of War Henry Stimson highlighted the solution adopted in the early stages of mobilisation when he declared: 'If you are going to try to go to war or to prepare for war in a capitalist country, you've got to let business make money out of the process or business won't work.'<sup>141</sup>

The Government accordingly entered into a close partnership with industry, which allowed industry to operate at full capacity confidently knowing all costs would be paid and a profit made. Although the Government's national mobilisation regulations and controls grated, private industry made and implemented most decisions on the production front, all driven by the stimulus of the profit motive.

### **Contract Distribution**

In the 1939–41 period, the mobilisation agencies did not control military procurement, despite having approval from Congress to. Contracts, including for facilities, were let without taking an overall view of national priorities. The armed forces generally favoured giving contracts to the nation's largest corporations, whose plants were mainly in the Northeast US. This meant relatively few urban areas became overloaded with contracts far beyond their capacity to produce in terms of facilities, electrical power and workforce.<sup>142</sup>

The 'all-outers' group took a contrary view. They favoured full-scale mobilisation immediately rather than the limited mobilisation underway. The 'all-outers' considered that the mobilisation agencies should be activist, take a national perspective and purposefully distribute defence contracts across the country. Moreover, existing plants, including those of small business, should be utilised fully before new facilities were built. Lastly, essential civilian production should start to be concentrated in a few facilities within an industry so as to allow the prompt curtailment of civilian consumer goods production when national mobilisation demands required. The Department of Defence opposed the 'all-outers' as they felt such policies inhibited mobilisation because they alienated and antagonised corporate and financial America.<sup>143</sup>

Attempts were made to protect small manufacturers from the negative impacts of an industrial mobilisation

focused on large corporations by forcing defence procurement agencies to spread contracts. However, this proved problematic as the agencies lacked appropriate administrative machinery and processes. Post-war some argued that a better way would have been to adopt the First World War construct of establishing local business committees to aid the prime contractors in subcontracting their work.<sup>144</sup>

In a similar vein of hoping to expand industry capacity more broadly across the country, the Government began placing 'educational orders' with industry, allowing them to learn how to manufacture complex military equipment. This process was a deliberate exception to competitive bidding and was limited to firms judged sufficiently large to undertake and manage large production contracts in wartime. Concern over favouritism held by some in Congress limited its application.<sup>145</sup>

### **Financing Factories**

In the 1939–41 period, few defence companies had the infrastructure necessary to produce the type of military equipment ordered or in the quantities required. This shortcoming became particularly evident as Lend-Lease contracts started to be signed. It was hoped that industrial infrastructure expansion would be funded through private financing given the armed forces had only limited funds for investment in plant development. Indeed, the armed force's new so-called Expediting Funds were inadequate even to construct the specialised facilities needed for producing explosives and ammunition.

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**Private enterprise was very reluctant. The experience of the Great Depression made businesses wary of creating excess capacity plant and equipment. They also worried about how long the current emergency would last and if new investment costs could be recouped.**

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Moreover, US Government contracts had statutory profit limitations, making them far less attractive than the abundant foreign and commercial orders that did not. The solution was seen to be exploiting the profit motive while operating within the general framework of the existing laws and regulations and minimising government involvement.<sup>146</sup>

<sup>141</sup> Secretary of War Henry L. Stimson quoted in *ibid.*, p. 115.

<sup>142</sup> Koistinen, 'Warfare and Power Relations in America', p. 93.

<sup>143</sup> *Ibid.*, p. 94.

<sup>144</sup> R.H. Connery, 'Organizing the Navy's Industrial Mobilization', *Public Administration Review*, Vol. 5, No. 4, Autumn 1945, pp. 303–311, p. 310.

<sup>145</sup> John E. Bokel and Rolf Clark, 'Acquisition in World War II', in Gropman, *The Big 'L'*, p. 103.

<sup>146</sup> R. Elberton Smith, *The Army and Economic Mobilization*, United States Army in World War II: The War Department, Washington: Center for Military History, 1991, pp. 456–457.



In October 1940, legislation was passed to allow contractors to write off the capital costs of building new infrastructure during the period of the defence emergency. The amortisation law permitted business firms, for purposes of determining their income and excess profit taxes, to deduct from their gross income 20 per cent annually the cost of all facilities created or acquired for national defence for a period of five years. If the defence emergency ended before five years, amortisation would then be allowed over the shorter period. Each new facility had to be certified as necessary to national defence by the NADC and the War or Navy Departments to be allowed amortisation.

The program proved highly effective in encouraging private financing of defence industry sector expansion, particularly in stimulating new aircraft factory development. The program also significantly supported building up the national capacity for the production of materials, parts, supplies, machinery and equipment essential to general war production and the maintenance of the industrial economy.<sup>147</sup>

Even so, the shock of Pearl Harbor and the sharp ramp up of military demand led to the Government taking a more direct approach in 1942–45. The Government then assumed the cost of building defence plants, equipment and tooling, which were then turned over to the private sector to manage and operate.<sup>148</sup>

### **Contracting**

The type of contacts shifted as war approached. The normal peacetime method was competitive bidding: economy, not speed, was the aim. In 1939, this changed with a move to negotiate contracts on a cost-plus-fixed-fee basis for the construction of naval aviation facilities outside the continental United States, in particular across the Pacific. The Navy felt there was insufficient time to devise detailed specifications, and potential contractors did not have adequate information on which to base costing and tender responses upon. Contracts were now awarded on the basis of the contractor's reputation, experience and resources. In effect, the Government borrowed management skill and assumed the financial risk. The contractors paid for the labour, materials, and equipment, subject to reimbursement.<sup>149</sup>

In March 1940, Congress passed the *Multiple Awards Act*, allowing the three lowest bids to be accepted rather than only the lowest bid. The intent was to build up the defence industrial base by increasing the number of contractors involved. In June 1940, the *Speed-Up Act* meant government could provide up to 30 per cent of the total contract cost upfront to allow the contractor to quickly begin making the capital investments necessary to purchase land, buy equipment or build facilities. This Act also eliminated the requirement for competitive bidding for certain items.

In June 1940 the cost-plus-fixed-fee means of contracting was extended to building ships. In shipbuilding there were always significant changes during the build; this form of contracting now allowed contractors to recover costs and still make a profit. The fixed-fee profit was either a specified sum or a percentage of costs. However, this kind of contract did lead to higher levels of government audit and management of the contractor.

The final step was in December 1941 when the president issued Executive Order 9001. This allowed government agencies to contract without advertising, taking bids, requiring bonds or any of the numerous safeguards usually employed. Only contracts with a percentage of cost clause were excluded.<sup>150</sup>

### **Controlling Industrial Sectors**

A significant mobilisation challenge was developing a way to best assign materials and control industrial production. In 1939–41, the primary method used to was priorities.<sup>151</sup>

Bernard Baruch, drawing on his First World War experience, held that at the centre of an industrial mobilisation must be a priorities agency that synchronises the national war mobilisation effort while providing the maximum possible to meet civilian needs. The overall intent of such an agency was to ensure the nation wins the war, survives economically, retains a low price structure and keeps the national industrial system dislocated as little as practical to ensure it is well prepared for the post-war global marketplace. On efficiency grounds, the priorities administration must consider price and money control, conservation, technical innovations, commandeering and the use of substitutes.<sup>152</sup>

<sup>147</sup> Ibid., p. 709.

<sup>148</sup> Losman, Kyriakopoulos and Ahalt, 'The Economics of America's World War II Mobilization', p. 147.

<sup>149</sup> Connery, 'Organizing the Navy's Industrial Mobilization', p. 305.

<sup>150</sup> Bokel and Clark, 'Acquisition in World War II', pp. 103–105.

<sup>151</sup> Smith, *The Army and Economic Mobilization*, p. 710.

<sup>152</sup> Bernard M. Baruch, 'Priorities: The Synchronising Force', *Harvard Business Review*, Vol. XIX, No.3, Spring 1941, pp. 261–270, p. 270.

**At the time, the fundamental issue in allocating scarce supplies was to provide a system such that every producer could readily ascertain the sequence in which competing orders should be filled. Ideally, the producer was to complete each contract in the order of its urgency in relation to the national war effort as was determined by the priorities agency.**

Such a regime did not mean all lower priority work was suspended while higher priority work was finished. Instead, lower priority work continued, providing it remained possible to finish the higher priority orders to meet contracted delivery dates.<sup>153</sup>

In the 1939–41 period, the priorities system was voluntary although the scale of government contracts acted as an incentive to comply. Companies were expected to make every effort to acquire the necessary supplies through negotiation with their suppliers. If this approach failed and the contractor believed the completion deadline would be missed, the issue went to the Priorities Committee of the Army-Navy Munitions Board, either directly or through the Government inspector located at the company concerned.<sup>154</sup>

Baruch considered a priorities control system needed to be activated when there was warning of impending shortages in any of the components of production. An item to be completed needed all its parts in place. Baruch observed: 'The priorities administration, therefore, must make special efforts to attain synchronisation of the manufacture of all the parts of each essential armament. This delivery date is the most important single factor in attaining proper synchronisation.'<sup>155</sup>

The priorities system worked adequately in the 1939–41 limited mobilisation period, but was largely replaced by the allocations method in the succeeding 1942–45 full mobilisation era. The allocations method controlled the flow of raw materials to the companies that made the military equipment and weapons. In contrast, the priorities method controlled through setting the relative production schedules for each contract. The allocations were made quarterly and forced the armed forces

procurement agencies for the first time to consider their future demands in the context of long-term military strategies.<sup>156</sup>

### **Coda: Playing Well with Others**

In both cases, the state needed to work with others in society to achieve its national mobilisation objectives. The Wrigley Report took the extant force structure and re imagined a different organisational structure with greater use of reserves, civilians and contractors whose primary mission would be homeland defence. For Wrigley, the military's role was not to fight wars on its own but to work as part of a national security team involving the whole Australian community.

In the US 1939–41 mobilisation case, many industrialists and business executives were not attracted to shifting to defence manufacturing. The US Government accordingly entered into a close partnership with industry, which allowed industry to operate at full capacity confidently knowing all costs would be paid and a profit made.

Both cases have parallels in recent national mobilisation debates. Wrigley saw defence as much more than expeditionary forces fighting distant wars – the professional military was part of a much wider community team. There is some broad agreement with that sentiment developing.

Rory Medcalf argues that Australians 'are finally realising that our security as a nation and a society is not just a problem for the professional security caste in Canberra but it matters to all of us, and all of us must contribute'.<sup>157</sup> Retired Admiral Chris Barrie has extended this in suggesting beginning a national debate on the nature, requirements and incentives for a universal service scheme involving all Australians. In a similar vein of considering the whole of society not just the military, Senator Jim Molan argues that Australia needs a national security strategy that focuses as much on national resilience as on military threats. Air Vice Marshal (Retd) John Blackburn concurs, stressing the importance of taking a holistic view of national security.<sup>158</sup>

<sup>153</sup> Ibid., pp. 262–263.

<sup>154</sup> Martin, 'Present Status of Priorities', p. 275.

<sup>155</sup> Baruch, 'Priorities: The Synchronising Force', p. 264.

<sup>156</sup> Gropman, 'Industrial Mobilization', pp. 38–40.

<sup>157</sup> Packham, 'How this pandemic will shift our defence posture'.

<sup>158</sup> Chris Barrie, 'AUSSIE – Why Australia needs a universal service scheme', in Peter Layton, Zach Lambert, Nathan K. Finney and Chris Barrie, *How to Mobilize Australia*, Centre of Gravity Series Paper 52, Canberra: Strategic & Defence Studies Centre, 2020, p. 33.

Moving from such aspirations to practicality, though, brings in the US 1939–41 national mobilisation. The case demonstrates the need in liberal democracies to encourage business to participate through financial incentives and profit motives of a scale sufficient to supplant civilian sector opportunities.

This insight is demonstrated in the Queensland Government's recent decision to award a contract for N95 medical facemasks to a Queensland company, in order to address COVID-19 pandemic issues. The company initiated high-rate production when supported by government financial assistance together with an agreed three-year offtake.<sup>159</sup> The capability and capacity for local manufacture depended on a compelling financial argument and reassurance of enduring profitability. Of note is that in the US 1939–41 case, such financial support flowed mainly to large corporations; the Queensland example is to a small to medium enterprise.

Advanced manufacturing techniques may make the use of smaller companies more practical than it was in the US 1939–41 case.

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**In a networked future, national mobilisation is a shared activity involving defence and society where the outcomes are agreed rather than directed.**

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While this is true of national mobilisation in general, in the networked future it is most pervasive. An Australian national mobilisation in a networked future would be whole-of-society by design, make use of market forces to allocate scarce resources, and have governmental controls that encourage business and workforce participation through financial incentives.

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<sup>159</sup> Anastacia Palaszczuk and Cameron Dick, 'Queensland manufacturers Evolve in time of need', *Media Statements*, 5 April 2020, <<http://statements.qld.gov.au/Statement/2020/4/5/queensland-manufacturers-evolve-in-time-of-need>>.

## CHAPTER 6 - GENERAL PRINCIPLES AND SPECIFIC ASPECTS

The historical cases demonstrate both some general mobilisation principles and some aspects appropriate to only one or two alternative futures. The general principles and specific aspects derived are not necessarily exhaustive, there may be others that different case studies would illuminate.

To partly overcome some of these methodological issues, the general principles detailed are derived from the case study assessment but informed by principles developed for the American National Security Resources Board (NSRB).<sup>160</sup> This was the model for the similarly titled board established by Prime Minister Menzies in 1950, as discussed in the Australia 1951–56 case study in Chapter 3.

The NSRB drew on the national mobilisation experiences gained in the Second World War to formulate a set of general principles. These principles were published in 1949 and importantly related to conventional war. After this, US national mobilisation thinking became increasingly influenced by the threat of thermo-nuclear weapons. As the Cold War deepened, the US adopted the defence strategy of mutually assured destruction that envisaged mutual nuclear annihilation within an hour, making planning for national mobilisation during a conflict no longer necessary.

This chapter initially sets out some general mobilisation principles. These should be applied with professional judgement in a manner appropriate to the context. Moreover, in being generic, they lack granularity; aspects pertinent to specific situations should be sought from the historical case studies. The chapter's second part summarises some specific aspects observed in the historical case studies. This section pulls attention back to the realities of historical national mobilisations and difficulties encountered in the real world.

### General National Mobilisation Principles

#### 1. National Mobilisation Concerns Total National Resources

The aim of national mobilisation is the effective and efficient use of all resources available to the nation. The type and quantity of the resources required will vary with the strategic need.

In a conceptual sense, the nation has a certain total amount of resources. That total amount can be split

between that needed for the civil sector and that needed for the defence sector. In time of crisis and war, more is allocated to the defence sector and accordingly taken from the civil sector.

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**In effect, national mobilisation involves simply moving the resource boundary between the civil and the defence sectors; one increases, the other decreases. This means that the key mobilisation question that the political leaders of any country must answer in time of conflict is: how much of the civil sector's resources should be reallocated into making war?**

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The role played by political leaders highlights that common to all levels of mobilisation is the transition from peacetime to wartime government administration. The nation, to the extent necessary, comes under the direction and control of the central government. Only with comprehensive planning and control is it possible to allocate large percentages of the national GDP to the demands of making war while simultaneously maintaining the civilian sector's productivity.

In 1951, Major General Arthur Vanaman (US Air Force) in a lecture reviewing Second World War experiences stated: 'The nation must in effect be transformed into a single gigantic factory producing, under government coordination, the goods and services required by the armed forces and the civil population.'<sup>161</sup> For Vanaman, production was the axis about which the national mobilisation wheel turned.

Vanaman took a rather broad view of 'production', which for him included military equipment and supplies, essential civilian goods of all kinds, supplies of basic raw materials, and essential services such as transportation, communications and power. Production in war differs from during peace in several aspects:

1. War production operates at expanded capacity, over longer hours, with multiple shifts and little spare capacity remaining.
2. War production involves using additional capacity gained by converting civilian production into defence equipment production. It can require working to higher standards of quality and precision than those necessary in many civilian products.

<sup>160</sup> Ralph J. Watkins, 'Economic Mobilization', *The American Political Science Review*, Vol. 43, No. 3, June 1949, pp. 555–563.

<sup>161</sup> A.W. Vanaman, 'Introduction to Economic Mobilization: The Economic Basis of Warfare', *Naval War College Information Service for Officers*, Vol. 4, No. 4, December 1951, pp. 1–19, p. 7.

3. Product quality and speed of production are of primary concern in war production; cost becomes of secondary importance. However, cost calculations must now also include the opportunity costs of using scarce production assets for a certain task and not another that is potentially of more value to the war effort.
4. War production is planned, directed and controlled by governments to meet national objectives. Decisions concerning what is made, in what amounts, in what order and for whom are driven more by the Government than individual business people or consumers.

In peacetime, the market predominantly decides the allocation of resources, channelling these into areas where demand, and hence price, is the greatest. In wartime, the market approach collapses as the demand for goods and services for the defence sector escalates wildly, becoming effectively unlimited in major wars. The market also breaks down as the Government, given its taxing powers, can pay almost any cost and so is immune to the normal constraints of the market. Demand then outstrips any immediate expansion of supply. Exacerbating the situation is that great demand stimulates employment and creates a general prosperity driven by the sharply increasing government spending. The civil sector's demand for goods and services also goes up.<sup>162</sup>

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**Accordingly, the role of government controls becomes central to the operation of society and the economy in time of war. The normal, comparatively unrestrained, forces of the market place are replaced by increasing controls over every part of the national life. It is this central direction and exercise by the Government of controls over the distribution of the nation's resources that gives the national mobilisation for war its most significant and distinctive character.<sup>163</sup>**

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The issues abstractly examined describe an ideal, full mobilisation situation. In reality, the strategic circumstances determine the degree of national mobilisation undertaken. In the case studies of Australia and the US in 1939–41 and of Australia 1914–18, governments found it difficult to exert the power and control they

wished. Their ambitions went unmet and particularly in the US the Government needed to bargain with and encourage industrialists and business executives to be involved in the national mobilisation effort. In the Iraq 2003 case, Australia used another country's national mobilisation rather than mobilising Australia. In the East Timor 1999 case, the level of mobilisation was muted. Only in the Australia 1942 and 1943–45 cases did a strong government control and motivate Australian society sufficiently to undertake national mobilisation in almost all of its manifestations.

These cases highlight that national mobilisation is a response to external events and is shaped by them. Eliot Janeway noted of the US Second World War mobilisation that:<sup>164</sup>

*the programmatic requirements of [our] mobilisation, while all-important, were not set by our mobilisers. They were imposed well in advance ... by the kind of war our Allies and our enemies had begun to fight. [America's] job was to adjust war production to the realities of combat, not to re-form those realities, except insofar as it budgeted for the momentum ...*

If others shape strategic circumstances, it can be difficult to plan for national mobilisation. Given such uncertainty, national mobilisation plans should be both flexible and strive to create more flexibility. The difficulty created is that building flexibility implies creating a broad range of under-developed mobilisation options rather than having only a few of considerable depth. A mobilisation's momentum, scale and speed may then be reduced as the mobilisation is beginning from a less extensive base.

In a similar manner, Australia's national mobilisation resources are not just shaped by Australia. For example, many Australian companies will be impacted to a greater or lesser extent if the US–China relationship deteriorates. Any company that hopes to work with US partners, particularly in the technology or defence fields, will need to reorient to meet increasingly strict regulations imposed to address US security concerns. Their vendors and suppliers will also be scrutinised and supply chains will need adjusting to prevent tampering and protect intellectual property. New worries over cybersecurity will further impact Australian companies.<sup>165</sup>

<sup>162</sup> Ibid., pp. 5–13.

<sup>163</sup> Harry B. Yoshpe, 'Economic Mobilization Planning Between the Two World Wars', *Military Affairs*, Vol. 15, No. 4, Winter 1951, pp. 199–204, p. 199.

<sup>164</sup> Eliot Janeway, 'The Drive and Direction of Mobilization', pp. 106–107.

<sup>165</sup> Brad Glosserman, 'Business must brace for the new national security economy', *East Asia Forum*, 12 February 2020, <<https://www.eastasiaforum.org/?p=232704>>.

Moreover, not all Australian companies are Australian – again, particularly in the technology and defence sectors. Many are branches of overseas companies or are owned and controlled from overseas. Decisions to expand, move into new production areas or export offshore depend more on their overseas' parent company's inclinations than any Australian national mobilisation issues. Some estimate only about 10 per cent of the contracts with the Department of Defence are with Australian-controlled companies.<sup>166</sup>

To address this potential constraint on a future national mobilisation, Graeme Dunk suggests that the Government should rebuild domestic defence capabilities so as to have sovereign capabilities in specified nationally important areas.<sup>167</sup> This is an approach that would broadly replicate that followed in the Australian mobilisation 1939–41.

A more circuitous route, implied by Frühling, is to make US armed forces more dependent on Australian resupply so that in time of crisis America will have an incentive to ensure Australia is supported.<sup>168</sup> This idea is reminiscent of the Lend-Lease and reciprocal aid programs used in the Australian mobilisation 1942–45. Both the Dunk and Frühling approaches accord with David Beaumont's idea of moving from operating on the basis of 'assumption logistics' delivered by a just-in-time global supply chain to shaping and operating from an 'assured logistics reservoir or flow' in a crisis.<sup>169</sup>

A further alternative to avoid unwanted constraints is to simply invest in large stockholdings making timely supply less concerning, although there are significant cost and stock obsolescence issues in such a strategy. National mobilisation can turn on more than just production, as Vanaman held; for smaller nations it can also include large contingency stockholdings.

Much of the debate on national mobilisation draws on historical examples and tends to stress the industrial sector with occasional mention of the primary sector. Mobilisation thinking has, however, generally neglected the services sector, which in modern societies is the largest and wealthiest part. The services sector is very diverse and its importance to national mobilisation and its ability to be mobilised remains somewhat undetermined.

<sup>166</sup> Graeme Dunk, 'The decline of trust in Australian defence industry', *ADM: Australian Defence Magazine*, 10 February 2020, <<https://www.australiandefence.com.au/news/the-decline-of-trust-in-australian-defence-industry>>.

<sup>167</sup> Ibid.

<sup>168</sup> Frühling, *Sovereign Defence Industry Capabilities*, p. 2.

<sup>169</sup> Robbin Laird, *Hi-Intensity Operations and Sustaining Self-Reliance*, January 2019, p. 26, <<http://www.williamsfoundation.org.au/resources/Documents/Sustaining-Self-Reliance-Full-Report.pdf>>.

<sup>170</sup> David Beaumont quoted in *ibid.*, p. 28.

## 2. National Mobilisation also Concerns International Resources

National mobilisation in no way implies autarkist policies. Domestic and international resources can both be utilised. Since the Second World War, a vast and comprehensive global marketplace has developed that potentially allows all governments access to the considerable workforce, wealth and materiel resources external to their nations.

Governments now have the option of using the global marketplace to overcome their resource shortcomings depending on the strategic circumstances. Australia tried but found it very hard to exercise this option during the First World War, being distant to the major powers and less critical to their military activities, as the Australia 1914–18 case discussed. In contrast, Australia's 2003 Iraq intervention used this option to the almost total exclusion of accessing Australian resources.

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**Relying on international resources can be advantageous but does create certain dependencies on external entities.**

**It may be unsafe to assume that even when operating within a coalition that the coalition partners will be able to provide sustainment in a crisis if their needs are pressing.**

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Moreover, as the Australian Iraq 2003 case noted, even if an item is available in the global marketplace there can be long lead times for some more complicated technical items, or if their purchase is in competition with that of other countries or larger powers.<sup>170</sup>

The Australian 1914–18 case suggested a different way of looking at the international resource issue. In that conflict, Australia sent thousands of workers to UK manufacturing facilities and shipbuilding yards. Australia contributed to the overall Allied mobilisation effort, and thus to the arming of its own forces, not by building equipment in Australia but rather overseas.

Today, Australia similarly contributes to other nations' national mobilisation base with an implicit assumption of being able to access these in a timely manner in war. A significant example of this is Australia's considerable investment in US-produced military aircraft. Australian

purchases of aircraft and spare parts helps keep these production lines 'hot' and available for surge production use by the United States and its allies. Moreover, Australia relies on offshore software laboratories that sustain Australian military aircraft across their life. Indeed, Australia has its own national software facility in the United States supporting the F-35.

These examples illustrate that in a globalised world not all production can be or is undertaken in Australia using solely Australian resources. Accepting this, Australia has a vested national interest in these distant sources. Any economic downturns, civil disturbances or natural disasters in these countries that could impact Australian national mobilisation would be of concern.

Such considerations also apply along the lines of communications between Australia and its overseas sources – these need to be reliable and robust. Military forces used to rely on 'interior' supply lines, all contained within the nation. Now these are complemented by 'exterior' supply lines, often manifested as a planet-spanning web of complicated supply chain connections.<sup>171</sup>

### **3. National Mobilisation Must Balance Essential Military and Civilian Requirements**

In national mobilisation, the defence and civil sector are equally essential. Neglect of either imperils the other. This makes a major issue in national mobilisation one of coordination. The needs of the frontline must be balanced against those of the home front. This is not a simple problem, as all of the factors involved are dynamic and constantly changing.<sup>172</sup>

The matter of coordination is exemplified in the guns versus butter debate. 'Guns' is a metaphor for military production and 'butter' for civilian production. In reality both are necessary, making it guns *and* butter rather than an either/or question. However, the boundary between them goes back and forward as needs must. At times one or the other will take precedence, even if perhaps in unexpected ways. In the Australian 1943–45 case, primary production of food was privileged to ensure US armed forces in the northern Pacific were fed over civilians in Australia.

The guns versus butter debate becomes even more complicated when national economic growth is considered. Some argue that any civilian activity not in direct conflict with important defence programs should be encouraged as being a useful addition to the overall

quantum of resources from which future war production might flow. Extending that logic, it may be unwise to commit a national economy to a premature conversion to defence production and instead better to maintain normal peacetime growth as long as sensible. The greater the pre-conversion expansion of a nation's overall economic resources, the higher the level of war production supportable when conversion becomes essential.<sup>173</sup>

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**The guns versus butter debate is at its core a debate over timing. A too-early national mobilisation would be detrimental in reducing the scale of mobilisation possible later. Conversely, a late national mobilisation may be disastrous.**

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In most of the historical cases examined, the major constraint on national mobilisation output was workforce: it is effectively fixed and can only be reallocated, not grown. One partial indirect solution to this problem is using controls like prioritisation as discussed in the US 1939–41 case. Controls mean the use of the workforce can be more optimised to the war effort's needs.

A more direct approach is using additional machines to attain higher levels of productivity. Each individual can then produce more. As noted in the 1943–45 case, Australia's relatively low agricultural productivity in the Second World War due to limited farm mechanisation had grand strategic impacts. In terms of national mobilisation, automation through reducing workforce requirements is inherently advantageous.

The balancing of the defence and civilian sector becomes more difficult if either requires reconstitution during a conflict as this diverts resources away from expansion. Materials, construction equipment, transportation and workforce would need to be reallocated into restoring important elements of the national mobilisation base if they were attacked. Even the threat of attack can cause disruption.

Concerns over Japanese submarine attacks on coastal shipping during Second World War meant rail and road transportation were emphasised. New road and rail links, railway rolling stock and trucks needed to be brought into service to provide services that in peacetime could be obtained through shipping. The submarine threat was realised, but others such as

<sup>171</sup> David Beaumont, 'Winning the War for Prosperity – the Military, Supply Chain Security and the Post-Pandemic World', *Logistics in War*, 22 March 2020, <<https://logisticsinwar.com/2020/03/22/winning-the-war-for-prosperity-the-military-supply-chain-security-and-the-post-pandemic-world/>>.

<sup>172</sup> Connery, 'Organizing the Navy's Industrial Mobilization', p. 303.

<sup>173</sup> Janeway, 'The Drive and Direction of Mobilization', p. 108.

a Japanese invasion or aircraft carrier raids against southern Australia industrial facilities were not. Such concerns did, though, lead to precautionary but disruptive dispersion of manufacturing plants and bulk supplies.

Such considerations highlight the interdependency of the defence and civilian sectors. If the national mobilisation base needs to be dispersed for protection, or reconstituted after attack, the outcome will be the diversion of resources and in particular workforce from the armed forces. The armed forces will become smaller and less well-equipped if the national mobilisation base comes increasingly under attack.

#### **4. National Mobilisation and Military Strategies are Interdependent**

There is a direct relationship between military strategies and national mobilisation. After the First World War there was a revitalised realisation of the interdependency between a nation's abilities to apply power and to build power. This reassessment led to the modern understanding of the idea of grand strategy.<sup>174</sup>

In a seminal work, historian Alan Milward examined the grand strategies of the Second World War's major combatants. He determined that not only did the grand strategies chosen impact their domestic societies, but that these grand strategies were also influenced and shaped by their respective domestic national mobilisation foundations. Milward developed a useful concept termed 'strategic synthesis' that involved states purposefully striking a balance between the demands of their chosen grand strategies and the ability of their domestic national mobilisation base to meet these demands.<sup>175</sup> In this, the development through national mobilisation of the strategic 'means' and their application were mutually determining elements. A successful synthesis of mobilisation and grand strategy must therefore 'take into account, political, military, social and psychological [factors]'.<sup>176</sup>

Aaron Friedberg updated the argument in examining the national mobilisations of the United States and USSR across the long Cold War. He argued that America progressively developed a suitable grand strategic synthesis, while the Soviet Union did not. The Soviet Union with a strong statist political culture choose a

grand strategy that made it into a 'garrison state', where primacy was given to military preparation at significant detriment to society. The USSR's national mobilisation was ultimately unsustainable, leading to the internal collapse of the regime. Conversely, the United States with an anti-statist ideology struck a better balance between military preparedness, long-term economic growth and social prosperity. The US became a 'contract state', limiting national mobilisation to very specific areas of the economy and becoming reliant upon private enterprise for the necessary research, development and manufacture of armaments.<sup>177</sup> The US national mobilisation progressively imposed less of a burden on its society and this gave the United States greater resilience than the increasingly brittle Soviet Union. The Soviet Union's strategic synthesis was fatally flawed while America's was better balanced and in due course prevailed.

The strategic synthesis idea has implications. To some extent, it suggests making war into a reverse engineering exercise. In this circumstance, the dimensions of the national mobilisation base that needed to be built would be determined by the military and civilian requirements for workforce, wealth and material that the overarching grand strategy called for. The complexity of such a task is readily evident after considering the case studies, as is the rigidity that would be induced by so doing. As discussed earlier, a partial solution is having flexible national mobilisation plans able to scale military forces up quickly enough to meet emerging operational demands.

A further implication is that a nation's defence force structure should be related to national mobilisation. Mathew Dirago writes:<sup>178</sup>

*Mobilisation planning requires not only detailed planning related to the physical requirements of mobilisation, but also substantial and 'tightly coupled' input to capability development plans ... mobilisation and preparedness [are] interwoven.*

This idea of a defence force being shaped by the needs of national mobilisation drove the 1990 Wrigley Report. Wrigley argued that Australia's defence force structure in terms of the regular, reserve, contractor and civilian mix should be considerably modified to allow national mobilisation in operationally useful timelines.

<sup>174</sup> Layton, *Grand Strategy*, pp. 9–36.

<sup>175</sup> Milward, *War, Economy and Society 1939–1945*, pp. 19–23.

<sup>176</sup> *Ibid.*, p. 19.

<sup>177</sup> Aaron L. Friedberg, *In the Shadow of the Garrison State: America's Anti-Statism and Its Cold War Grand Strategy*, Princeton: Princeton University Press, 2000, pp. 75–80, 341–351.

<sup>178</sup> Matthew Dirago, 'Planning for War: Why the Australian Army Should Re-Energize Mobilisation Planning', in *The Breckinridge Papers: Selected Studies from the Marine Corps University*, Vol. 2, No. 1, 2017, p. 34.



Wrigley's concept kept the equipment and changed the organisation.

In contrast, Desmond Ball and John Langtry suggested changing both the equipment and the organisation so as 'to utilise fully the production and support capacities of the civilian infrastructure'. Ball and Langtry said such an approach could mean military equipment with component parts standardised with those for civil production lines, multipurpose designs with modular components that maximised the scope for domestic production, and designs featuring increased simplicity and reliability and if necessary reduced peak performance.<sup>179</sup>

A deeper, more profound implication of strategic synthesis involves time. Strategic synthesis brings military strategies and mobilisation together. However, strategy is all about creating and managing change over time. If national mobilisation is to be related to strategy, it must also accommodate change and time.

Some argue that national mobilisation plans, like war plans, should be broken into phases with each attuned to the appropriate phase in the war plan. Etzold speaks of needing 'a mobilisation contour consistent with and linked to those embedded in war plans'.<sup>180</sup> Each phase of a conflict will have different mobilisation demands. Such a process can be realised in comparing Australia's mobilisation demands and solutions in 1939–41, 1942 and 1943–45. Each period required different national mobilisations. Mobilisation should be thought of as being across time, changing as strategies evolve not as a fixed program.

Accordingly, national mobilisation can be perceived as having multiple elements that ideally will each produce the requisite outputs at the correct time and in the correct sequence. Some elements will need to work in conjunction and so will need to be developed in parallel, other elements may be required individually and so can be developed in series. In this, some elements may be able to be developed quickly while others may take decades.

Krepinevich has extended this to thinking about mobilisation not just of our nation but also of the adversary; to deter it may be necessary to maintain a mobilisation advantage over a potential opponent. The national mobilisation timeline from pre-war through conflict to post-war should be laid against that of the adversary to see if there are any periods where they enjoy a marked

advantage. These times of danger should then be reduced or eliminated.<sup>181</sup> This idea reconceptualises the balance of power as a balance of national mobilisations.

Changing a mobilisation's momentum may be more difficult than it sounds. In the Australia 1943–45 case, the Government needed to make a significant rebalance between the numbers of personnel in the armed forces and rural industries. The War Cabinet found this change hard, eventually settling on a limited adjustment of 40,000 personnel rather than when, as noted earlier, perhaps 75,000 was a more reasoned number. By 1943, however, national mobilisation had a definite momentum; like a large ship it was hard to turn, making proposals for such sizeable pivots problematic.

### **5. National Mobilisation Must Be Flexible in Its Use of Controls**

Government can use a variety of controls to direct the allocation of scarce resources during national mobilisation. Such controls need to be flexible to meet the changing needs of national mobilisation as it evolves in response to changing strategic imperatives and pressures. In the US 1939–41 case, the priorities method was favoured but the allocation method was adopted in 1942 after the US formally entered the Second World War. Control issues and practices also featured in the Australia 1942 case. Generic control types that could be considered during national mobilisation include:

- controls that directly divert productive capacity into meeting defence demands
- controls used to distribute workforce across the defence and civil sectors
- controls that favour exports and imports contributing directly or indirectly to mobilisation
- controls that maintain the civil sector both physically and psychologically, such as rationing and price controls.<sup>182</sup>

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**Controls to be effective need to be based on reliable, appropriate data. The analysis of the Australia 1939–41 case noted the lack of statistical data and limited availability of skilled people able to analyse it. The deficiency was never overcome because the Government failed to appreciate its importance.**

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<sup>179</sup> Ball and Langtry, *Problems of Mobilisation in Defence of Australia*, p. 21.

<sup>180</sup> Etzold, 'National Strategy and Mobilization: Emerging Issues for the 1990s', p. 21.

<sup>181</sup> Krepinevich, *Protracted Great-Power War A Preliminary Assessment*, p. 46.

<sup>182</sup> Vanaman, *Introduction to Economic Mobilization*, p. 7.

In contrast in the US 1939–41 case, the shortcoming was recognised and addressed in 1940. However, in 1942, the primary control mechanism changed from priorities to allocations, so the statistical regime and data collected needed to change as well. It was not until late 1943 that a suitable integrated reporting method was in place.

The problem is more complicated than it initially seems. National mobilisation requires different data types to those collected during peacetime, as the Government now needs to base national production decisions on it, not simply monitor events. Coordination of the many activities across society cannot be left up to market forces. However, the statistical structure needed to control national mobilisation will depend on the control mechanisms used. The data necessary is likely to be more specific, require greater accuracy, obtained in greater detail and collected faster than is deemed necessary in peacetime. Until a suitable data collection regime is established, control of national mobilisation may be somewhat uncertain, confused and inefficient.

### **6. National Mobilisation Planning in Peace and War is a Deeply Political Issue**

The degree of national mobilisation undertaken will depend on the strategic circumstances; however, any mobilisation considers the whole of society and the total resources available. Under this precept, national mobilisation is accordingly an issue for the whole of society and in particular its political leaders. In a democracy, only political leaders possess the authority to commence and direct national mobilisation and associated activities. In reality, the issue is more complicated.

In the interwar period, Congress formally tasked the US War Department with developing and maintaining national mobilisation plans. As discussed in the US 1939–41 case, these plans were rejected when mobilisation came on political and feasibility grounds. In so doing, President Roosevelt clearly set out that US mobilisation would be civilian-run and controlled.

The plans had been developed in an overly inward-looking military manner that placed the armed forces at the centre of the process not as part of the process. To be successful, the plans would have needed much greater whole-of-society involvement, advice and agreement. The 1990 Wrigley Report essentially argued the same: civilians should both lead and be deeply involved in mobilisation planning for it to be both successful and accepted. In mobilisation planning it seems the armed forces are not enough.

Even so, there are qualifications. As noted in the Australia 1939–41 case, the Department of Defence played a seminal role in pressuring other departments to begin addressing mobilisation issues that they would need to action in time of war. The other departments were busy delivering peacetime policy and services with little capacity for other tasks. Without this external pressure from the Department of Defence, mobilisation would have been delayed. In contrast, in the Australia 1951–56 case, the armed forces were unimpressed and somewhat unhelpful when Prime Minister Menzies decided mobilisation was an important issue. They had gained a budget increase and now did not wish for further dialogue.

Looking beyond the armed forces, the US 1939–41 case also revealed the ability of a government to direct society to commence mobilisation has limits. To a greater extent than authoritarian regimes, democracies must bargain, cajole and lead their societies in a national mobilisation rather than coerce. This was further brought out in the Australia 1942 case where controls were put in place that worked well when implemented but then as circumstances over time changed the public's desire to obey waned.

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**At its core, national mobilisation is inherently a deeply political process. National mobilisation is commenced and controlled by the nation's highest political leaders, but politics of many different kinds are evident all the way down.**

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### **7. National Mobilisation is an Integrated Activity**

National mobilisation in bringing together whole-of-society and international resources requires an integrated planning approach. Rather than being conceived as a collection of individual elements, mobilisation should instead be an overall program that is internally coherent, where each element enhances the others' impact and which exploits synergies to maximum effect. The intent is that the whole should be greater than the sum of its parts.

Accordingly, mobilisation planning needs to focus primarily at the system level not simply on maximising outputs from each of the separate components. How the various elements work together is the central question in devising an effective and efficient mobilisation plan. In a similar vein, Frühling suggests that in developing industries to support the ADF, Australia 'must look to industry support to operations at the force

structure level, not just consider industry as a collection of industry Fundamental Inputs to Capability'.<sup>183</sup>

This does not imply that any specific mobilisation will necessarily involve all the resources potentially available to a nation. Instead, mobilisations should involve just the resources necessary. Resources are always scarce, and using some unnecessarily will prevent their employment elsewhere to address other issues of national concern.

The idea of applying just the resources required and no more lay behind General Douglas MacArthur's thinking when he was Chief of the General Staff of the US Army during the interwar years. He disliked notions that the United States should have only a single general mobilisation plan meant for any and all circumstances. On the other hand, he also opposed having separate mobilisation plans for each individual war plan. Instead, he advocated a middle ground with the national mobilisation plan containing not just basic parts, but sub-assembly packages able to be combined so as to optimally address any particular need that arose.<sup>184</sup>

Each sub-assembly would include the appropriate resources from across society integrated to form a stand-alone package able to join together with others to produce a cohesive national mobilisation effort. In this, each sub-assembly would need to be developed based on consistent and common planning assumptions.

### **8. National Mobilisation Must Consider the Pre- and the Post-War**

Just like wars, national mobilisations start and finish. Planning may continue indefinitely across peacetime but societies do not stay mobilised forever. As noted in the Australia 1951–56 case, Prime Minister Menzies somewhat reluctantly observed that it is 'impossible for a democracy to go on indefinitely preparing for war'. The example of the USSR's unsustainable national mobilisation noted earlier suggests the same applies to authoritarian states.

**Long-term preparatory mobilisation activities need to have their impact on peacetime society carefully assessed. Ideally, mobilisation objectives should be attuned with the needs of the wider community and maintaining a sound economy. Indeed, they may need to be so in order to gain political approval and funding.**

For example, plans for locating strategic military equipment manufacturing facilities should, if sensible, relate to known trends such as population and business movements towards centralisation, urbanisation or specific geographic locations.<sup>185</sup> The Australia 1914–18 case illustrates the potential negative impacts of disregarding such issues. Sharply increasing production rates at the Lithgow rifle factory proved problematic, as the extra people required could not be easily accommodated in the small, relatively remote country town.

Interest in national mobilisation activities becomes progressively more intense as worries over the possibility of war deepen. Paul Dibb and Richard Brabin-Smith in 2017 argued that with nations in Australia's region – particularly China – developing increasingly sophisticated military forces, the warning time available to an Australian government of an impending conflict might be short.<sup>186</sup> In 2019, with these changes in the regional strategic environment accelerating, the Australian Defence Department began a significant national mobilisation review.<sup>187</sup>

A 1970s study by Max Speedy offers some indication of the possible duration of 'short notice'. Speedy determined that in conflicts between 1950–73 there was an average of 11 months between a government first recognising dangerous instability to needing to take a military response. His statistical analysis of the data was that there was a 50 per cent probability that a conflict could occur with only four months' warning time.<sup>188</sup> Speedy's analysis resonates with the 1990 Wrigley Report case in which Wrigley devised his alternative force structure model so as to be able to complete national mobilisation within 6–12 months.

<sup>183</sup> Frühling, *Sovereign Defence Industry Capabilities*, p. 2.

<sup>184</sup> Kreidberg and Henry, *History of Military Mobilization*, p. 426.

<sup>185</sup> Watkins, 'Economic Mobilization', pp. 559–560.

<sup>186</sup> Paul Dibb and Richard Brabin-Smith, *Australia's Management of Strategic Risk in the New Era*, Strategic Insights No. 123, Canberra: Australian Strategic Policy Institute, November 2017, p. 2.

<sup>187</sup> Naomi Thomas, 'War in 2025 looks grim: ASPI's international conference highlights', *ADM: Australian Defence Magazine*, Canberra, 20 June 2019, <<https://www.australiandefence.com.au/events/event-reporting/war-in-2025-looks-grim-aspi-s-international-conference-highlights>>.

<sup>188</sup> I.M. Speedy, 'Mobilisation of the Navy', in Ball and Langtry, *Problems of Mobilisation in Defence of Australia*, p. 68.

If ideally mobilisation begins before a conflict, it also continues after the war concludes. Conceptually, mobilisation does not end when the fighting stops, but instead when society is returned to a 'normal' state. Shifting the boundary between the defence and civilian sectors back so that the defence sector declines, perhaps precipitously, can be difficult for the people and industries involved. The sharp economic recession after the First World War occurred because government

defence spending was suddenly withdrawn. Similarly, governments can be reticent to give up the considerable power to command and control society they have gained.

Having experienced the sudden societal and economic disturbances at the end of the First World War, many Allied nations began planning to demobilise and return society to normal as soon as victory seemed assured during the Second World War. Most planned to

Alternative Future/Strategic Circumstance	Historical Case Studies	Specific National Mobilisation Aspects
<b>FRAGMENTED FUTURE</b>	Australian mobilisation in the First World War (1914–18) and in the early years of the Second World War (1939–41).	<ul style="list-style-type: none"> <li>• Expeditionary force focus</li> <li>• Homeland defence secondary</li> <li>• Australia self-perception as distant support base unreciprocated</li> <li>• Establishing domestic arms manufacturing difficult</li> <li>• Merchant ship shortage</li> <li>• Workforce capacity limits reached</li> <li>• Financed by loans</li> </ul>
<b>MULTIPOLAR FUTURE</b>	Australia 1942 under threat of direct Japanese attack, and later 1943–45 when the situation changed from defending Australia to liberating Japanese-held territory across the Pacific and East Asia, and lastly Australia during the early Cold War 1951–56.	<ul style="list-style-type: none"> <li>• Homeland defence focus evolving to stress expeditionary forces</li> <li>• Supporting allies major focus</li> <li>• Selective domestic arms manufacturing</li> <li>• Ship repair capability important</li> <li>• Workforce capacity limits reached</li> <li>• Command economy develops</li> <li>• Financed by taxation</li> </ul>
<b>MULTILATERAL FUTURE</b>	Australian mobilisation for East Timor 1999–2000 and the Iraq Invasion 2003.	<ul style="list-style-type: none"> <li>• Expeditionary forces sole focus</li> <li>• National support base of marginal importance</li> <li>• Exploit allies' national mobilisations</li> <li>• Just-in-time support</li> <li>• Low stockholdings</li> <li>• Commercial support emphasised</li> <li>• Financed by loans</li> </ul>
<b>NETWORKED FUTURE</b>	The 1990 Wrigley Report as an Australian example and the US 1939–41 mobilisation just prior to the US formally entering the Second World War.	<ul style="list-style-type: none"> <li>• Homeland defence stressed</li> <li>• National mobilisation focused</li> <li>• Business deeply involved in defence</li> <li>• Civilian-led national mobilisation</li> <li>• Business expansion (rather than increased output from existing plants)</li> <li>• Financed by taxation</li> </ul>

Table 2: National Mobilisation Case Study Summary

gradually release controls hoping to maintain employment and retain control over inflation.

Australia was somewhat late and based its demobilisation planning on the war ending mid to late 1946. The atomic attacks on Japan brought that forward a year. Australian demobilisation was a patchy affair with some successes and some failures; for example, some food rationing continued as late as mid-1950.<sup>189</sup> Nevertheless, the long boom of the post-war years is perhaps the best testament to the demobilisation's overall success.

### **Specific National Mobilisation Aspects**

While there are general principles broadly applicable to all national mobilisations, there are certain aspects specific to a particular strategic circumstance and not others. Table 2 summarises some specific national mobilisation aspects discussed in Chapters 2, 3, 4 and 5. These aspects are not exhaustive, but rather issues that stood out as priorities in the relevant case studies.

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<sup>189</sup> Butlin and Schedvin, *War Economy 1942–1945*, pp. 773–798.

## CONCLUSION

**National mobilisation is a large, complicated and complex issue that encompasses all of a country's society and beyond. Achieving perfection is improbable given there is never enough time, the adversary is always taking counter-responses, international circumstances remain fluid and domestic society is forever dynamic.**

Different strategic circumstances result in different national mobilisations as regards scope, nature, scale and duration. Crucially, the future strategic circumstances are always uncertain, and this makes mobilisation policymaking and planning difficult. A way to address this is through the use of the alternative futures methodology.

This paper assessed national mobilisation across four different alternative futures. In a fragmented future Australia would be home alone. National mobilisation would mainly draw on the nation's resources supplemented by whatever could be accessed from allies, friends or the global marketplace. In the two historical cases examined (1914–18 and 1939–41), Australia was simply too distant to significantly matter to adversaries or allies as either a source of concern or support. This irrelevance meant Australia's national mobilisation did not need to be extensive, moderate governmental control of society was adequate and market-based allocations of scarce resources could generally be continued to be relied on. Being irrelevant to the other combatants is not historically the most demanding circumstance for national mobilisation.

In a multipolar future, Australia would be important to allies and adversaries and this has substantial implications for national mobilisation. In terms of allies, it would guarantee support for an Australian national mobilisation even if in a form the provider thought advantageous to its own national interests. In terms of adversaries, an Australian national mobilisation would be likely to be directly threatened, distorted or disrupted by hostile

actions. An Australian national mobilisation in a multipolar future could progressively evolve to a situation where it is total, there is full governmental control of society and the allocations of scarce resources are by decree not by the market. Being relevant to all combatants, whether adversary or allied, is historically the most taxing Australian national mobilisation circumstance.

In a multilateral future, Australia is just one country amongst many, even if some allies and friends can be especially helpful if they choose to. National mobilisation would be a blend of Australian or global resources as was the most effective and efficient at the time. An Australian national mobilisation in a multilateral future would be the minimum practical, with governmental control of society little changed from peacetime and the allocations of scarce resources still made by the market. Military strategy may be driven mainly by the degree of force element mobilisation that could be readily achieved without noticeably impacting society rather than by the policy outcomes sought.

In a networked future, national mobilisation is not just a business of the state. In this future, it is a shared activity involving defence and society where the outcomes are agreed rather than directed. An Australian national mobilisation in a networked future would be whole-of-society by design, make use of market forces to allocate scarce resources and have governmental controls that encouraged business and workforce participation through financial incentives. Military strategy would be mainly driven by the manner in which the national mobilisation was undertaken rather than by the policy outcomes sought.

Against such abstractions and talk of alternative tomorrows, Australia's future national mobilisation needs are unsure, although the past suggests ways that national mobilisation might be undertaken. However, for the ADF there is a certainty: if another war is fought, national mobilisation to some degree will be necessary. This is a future that can't be avoided.



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