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Editorial Note

Welcome to the third issue of *Policy Quarterly (PQ)*. As we go to press, campaigning for New Zealand's general election – the fourth under proportional representation – is gathering momentum. In broad terms, the political scene is as one might expect to find in most other multi-party, representative democracies. Political parties are earnestly advertising their strengths and commitments, and equally vigorously criticizing their opponents' policies and promises. Potential coalition partners are eyeing each other up and performing the often awkward pre-election ritual – seeking, on the one hand, to demonstrate their compatibility and faithfulness while, on the other hand, proclaiming their distinctiveness and superiority. Policy debate, while not necessarily superficial, is all too often reduced to the crudeness and simplicity of 'sound bites'.

Meanwhile, public servants have entered the twilight zone between one government and the next. Many advisers find this a period of relative tranquility, and thus opportunity. Freed from the incessant demands of cabinet processes and ministerial briefings, there is, potentially at least, more time to think – to ponder the broader policy terrain and reflect on issues of wider strategic importance. It is equally a time to take stock – to consider what tasks have been carried out well and badly during the previous parliamentary term and prepare for the incoming government.

With this specific context in mind, the first three of the articles in *PQ* are particularly germane. In the first, Karen Baehler addresses a number of critical issues surrounding the nature of, and limits to, the advisory role of public officials. Drawing upon the so-called 'liberal restraint principle', she advances the proposition that public officials, when tendering advice to ministers, should focus on 'public argument' advising. That is to say, they should seek to distinguish between public and non-public policy rationales and should focus upon the provision of arguments that reasonable people would regard as "legitimate and worthy of discussion, even if they disagree with the premises and conclusions". Baehler's argument forms part of a much broader and longer conversation with her colleague Robert (Bob) Gregory about the nature of policy advice and the role of advisors. In the spirit of continuing and extending this dialogue, Bob will have the opportunity to respond to Karen's piece in the next issue of *PQ*.

Taking a somewhat different angle, Claudia Scott discusses how the public sector in Australia and New Zealand is adapting to the challenges and opportunities of a more contested policy environment. Amongst other things, she argues that there are "unrealized opportunities for the public sector to create additional value in policy analysis" and urges the development of "more innovative and transformational" advisory systems.

Antong Victorio provides a brief analysis of game theory and discusses its contribution to the understanding and resolution of policy problems. While acknowledging that the assumptions of game theory – rationality, self-interest and good information – frequently do not apply in the 'real world', he notes that recent developments in game theory (such as evolutionary games) hold the promise of enabling the decisions of organizations and states to be considered in game-theoretic terms, even if the usual assumptions do not hold.

Turning from the craft of policy advice, Peter Cozens examines the funding of New Zealand's armed forces, prompted by the government's announcement in May 2005 of a $4.6 billion boost in Vote:Defence over the next 10 years. This large injection of funding poses a variety of questions, not least why it became necessary. Peter's article specifically tackles this issue and provides an intriguing, albeit sobering, account of defence policy making over recent decades. But he leaves at least one puzzle unanswered: why has this very substantial commitment of new funding sparked so little public comment, notwithstanding the heightened focus on issues of public expenditure on the eve of an election?

Readers are invited to answer this conundrum - and comment on any other issues raised in the four articles.

Jonathan Boston
Managing Editor

What are the Limits to Public Service Advising? The 'Public Argument' Test

Karen Baehler

Some Wellington policy advisers seem to feel under-employed these days. Although the volume of work is reportedly high, they complain about being relegated to implementing policies rather than formulating them. Where big picture policy is concerned, it is said that governments mostly develop their ideas outside the public service's field of vision, in party caucuses, think tanks, and prime ministers' inner circles, or in consultation with special advisers who report directly to ministers. Policy advisers are then left to fill in the blanks. Some imply that things used to be 'better' and that advisers used to exert more leverage over high-level policy directions.

These concerns are difficult to confirm or deny. The professional role of 'policy analyst' is a fairly new creation and norms of influence are not yet institutionalised. Different tasks require different types of engagement, and different governments develop different relationships with their advisers. These relationships also evolve over time. First-term governments often treat inherited policy advisers with suspicion. Such suspicions should fade in a second term as the sitting government puts its own stamp on the public service, but some habits die hard, particularly if the public service's policy advice capabilities deteriorate during its exile. In general it is probably safe to say that public service influence over high-level policy naturally ebbs and flows, though not necessarily in predictable cycles.

With a general election ahead, the current crop of advisers don't know whether they will be facing a low tide or high tide of influence. Either way, it is a good time to reconsider the normative role of policy advice in a healthy policymaking system. Is there a role description that can provide a steady focus for practicing advisers across the peaks and troughs of the natural influence cycle, and weave together the many types of tasks, contexts, and relationships that advisers encounter? I can think of no better place to begin addressing this question than with the work of my colleague, Robert Gregory, whose critique of rationalism in policy analysis (i.e., technocracy or rule by expert elites) has prompted much of my own thinking about the nature of policy advice. Although I disagree with much of this critique, I believe that it poses the kinds of questions that can lead to genuine advances in policy analysis and advising.

Gregory's work supplies two cases, discussed below, which I argue can help us locate the boundaries between appropriate and inappropriate roles for policy advice in a healthy democratic polity. Working backward from these cases, a core principle of good practice emerges, which is provisionally called public argument advising. The term 'argument' refers here to a coherent set of propositions that lead from premises to a policy conclusion. An argument presents the case for a particular policy choice, including reasons why the policy should be favoured.[1] A public argument presents the kind of policy case that citizens will recognise as legitimate and worthy of discussion, even if they disagree with the premises and conclusions. This article reports on work in progress to develop the idea of public argument advising and give it practical form. Much further work needs to be done, and readers are invited to join in this project and also to critique it.

US policy in Iraq: Is there a no-go zone for policy advice?

When searching for external standards of, say, justice or equity, it is often useful to begin by looking at cases in which the standards are clearly absent – i.e., cases of injustice and inequity – and asking why we judge these as we do.

1 Those who would like to explore the general idea of public policy as a form of argument might begin with Paris and Reynolds (1983), Stone (1988), and Majone (1989).

Applying this principle to the subject of policy advice leads to the following question: How can we tell when policy analysis and advice has overstepped its bounds?

Consider first the case of giving policy advice on Iraq to the Bush Administration. Gregory (2004) suggests that Bush Administration analysts working prior to the invasion would have been wasting their time analysing policy options and explaining risks, because the decision to invade Iraq was based on the kind of crude impulses and covert intentions that do not yield to rational scrutiny. This was the quintessential case of policy advisers being told to shut up and implement policy. What should the policy adviser do in such circumstances?

The New Zealand Code of Public Service Conduct answers this question clearly. Regardless of whether they expect their advice to be accepted or rejected, public servants should deliver free and frank advice and then abide by the government's policy decisions and implement them conscientiously. Although the US setting is different, similar principles would apply. Policy advisers who follow this code may find the job exceedingly unpleasant if they disagree vigorously with a chosen policy, but they will not be compromising their professional integrity if they stick with it. Advisers always have the option of exiting (resigning), with or without voice (ordinary speaking out or, where necessary, whistle blowing), if they find the situation intolerable.

Gregory (2004, p.303) argues that something more is also required of policy advisers in this type of situation. In the name of relevance, he argues that policy analysis must be capable of swaying policy makers and carrying the day politically, which means that it must be able to engage with 'the dark recesses of political motivation, not only where hidden agendas need to be rationalised by publicly acceptable justifications, but where ultimate motivation depends far less on logical reasoning and much more on tacit beliefs and convictions' (Gregory 2004, p.302). Thus, analysts should not only abide by the government's policy decisions and implement them, but when formulating their advice, they should also take into account in some unexplained way the full array of interests and impulses that may be driving policy. In order to be relevant, as he defines it, policy advice must 'connect analysis to the complex, untidy, and usually opaque domain of political motivation' (Gregory 2004, p.303).

I look forward to further explanation of these points in Gregory's reply to this article, but it appears that a standard is being set that severely reduces the adviser's expected level of detachment from the inner workings of a government's psyche. In practical terms, this means that advisers are expected to work not only with the policy rationales that ministers present to them or ask them to construct, but also to guess at what additional, unspoken (and sometimes unspeakable) rationales might possibly motivate a policy choice.

The art of reading ministers' minds and detecting subliminal messages is nothing new to experienced advisers, and it is well understood that many of the best minister-adviser relationships operate as partnerships in which the full range of motivations and rationales for policy may be confidentially explored. Gregory's point is therefore a refreshing one, because it reminds us that analytical detachment is not always possible or desirable, and that every policy choice results from the convergence of multiple reasons and interests around a particular policy idea. Making this point in the context of the Iraq example, however, raises important questions about an adviser's obligations to engage with the dark recesses of political motivation when these are particularly contemptible.

A helpful distinction in this case is between the kinds of motivations and policy rationales that do and do not bear public scrutiny. In the case of Iraq, the unspeakable rationales are conveniently obvious. Some fail the test of being publicly presentable because they involve private agendas, such as exacting revenge for old Bush family grievances or distributing lucrative post-war reconstruction contracts to business cronies. Although access to oil has long been a key factor in the foreign policies of the US and many other countries (wink, nod), the goal of gaining control of Iraqi oil does not qualify as a public rationale for invading Iraq because it violates the principle that war is a last resort rather than an ordinary tool of foreign policy. If any of these hidden goals were animating Bush Administration decision makers, they could not have been presented forthrightly to American citizens without either violating core principles that the US espouses or distorting them beyond recognition.

The best of Bush's defence and foreign policy advisers under the circumstances would have been aware of these possible motivations but also kept their distance. They

would have focused exclusively on the kinds of arguments that could be vetted in public. They would have constructed these arguments, tested them, and presented their strengths and weaknesses, in the full knowledge that their advice was unlikely to influence policy choice but was nonetheless an important part of the historical record.

What kinds of rationales might pass the public presentability test in this case? The question is fraught and the answer depends on enormous assumptions concerning the morality of war and the degree to which international law should dictate a country's public policy options. Arguably, public rationales for invading Iraq might include removing illegal nuclear and chemical weapons (a rationale supported by international law but undone by lack of evidence), liberating Iraqis from oppression, hastening the spread of democratic freedoms in the Middle East, protecting Israel from its sworn enemies, demonstrating Anglo-American resolve to exercise hard power when it is deemed necessary, and punishing states that sponsor terrorism (referring to Saddam Hussein's support of Palestinian terror) in order to deter such sponsorship in future (e.g., in Saudi Arabia, Yemen, Jordan, and elsewhere). Each member of the US Congress who voted to finance the war would have had in mind his or her own preferred combination of these rationales. Some opponents of the war disagreed with these goals, while others supported the goals but felt that military intervention was the worst possible way to pursue them. Either way, most participants valued the opportunity to air the public rationales and debate them.

Conventional standards of good policy analysis practice require analysts to construct multiple policy options and assess these options against multiple goals, but rarely do the purveyors of conventional good practice mention the possibility that some goals may lay beyond the pale of public reasonableness. The policy adviser's role in these cases should not be confused with disdain for politics, as Gregory suggests. Advisers who refuse to help justify or pursue hidden agendas that would fail the public reasonableness test are not shunning politics, for the focus on public arguments contributes directly to political positioning. This approach to circumscribing policy advice is meant to promote public debate rather than suppress it and to support open politics over closed.

1980s New Zealand: when are analysts too powerful?

The second case is New Zealand's 1984 policy revolution, which Gregory (1998) describes as a case study in technocracy. As Gregory and other critics tell the now-familiar tale, the fourth Labour government allowed a small band of neo-classical economic advisers to formulate sweeping policy changes that touched all sectors of the economy and society. The reforms were driven through Cabinet and Parliament at top speed with woefully little public debate, according to critics, and along the way, the reformers rode roughshod over the public service's most valuable asset – trust between officials, elected representatives, and the people. The reformers shunned ordinary knowledge in favour of technical expertise, and asserted economic theory's dominance over democratic process. Although they claimed to be led by theory rather than political interests, Gregory argues that they were engaging in a misleading and quasi-dishonest form of covert politics.

With respect to the role of policy advisers in this episode, I respectfully disagree with Gregory and will argue, contrarily, that the policy advice supplied to the fourth Labour government was a stellar example of public argument advising. Elaborate rationales were constructed linking proposed policy directions to a particular vision of the long-term public interest. Although key planks of the resulting policy agenda were rushed through Parliament in urgency and many discussions were held behind closed doors, the advice itself was eminently presentable and, if presented, would have sparked a healthy, vigorous public debate in almost any other democratic country with a more heavily contested political environment and longer experience with ideas of deregulation, privatisation, and rolling back the state. This conclusion holds regardless of whether one agrees or disagrees with the content of the advice given at the time.

If 1984 was New Zealand's first serious encounter with full-throttle market liberal doctrine, then it should not come as a surprise that the public debate was a bit thin at first. Not only were the natural opponents of market liberalism understandably ill prepared for this burst of new ideas, having grown accustomed to a political system that largely delivered variations on social democracy rather than alternatives to it, but they were also taken off guard by the new doctrine's embodiment

in a Labour government. What's more, the frameworks and proposals being rolled out in 1984 and beyond were not the standard, garden-variety form of market liberalism. They were a complex hybrid of several different theoretical threads, some of them unfamiliar in this part of the world; it took time for the academics and practitioners to sort them out, both locally and internationally. Add to this the superb political skills of the people driving the agenda and their ability to wield the strong executive powers granted by the pre-MMP, first-past-the-post parliamentary system, and it becomes considerably harder to fault either the reformers or their advisers for behaving badly.

Viewed in this way, the general idea of a technocratic threat seems to lose some of its sting. The unusual circumstances faced in New Zealand in 1984 are unlikely to recur, given changes to the electoral system, and even if they did, Gregory argues that highly theoretical policy advice usually fails to move policy makers because it cannot speak to their political imperatives (Gregory 2004, 2002). New Zealand under the fourth Labour government is the exception that proves that rule.

Contrary to what its rationalist critics say, the practice of policy advice in New Zealand in the revolutionary period fits squarely within the boundaries of appropriate policy advice, understood within a public argument framework. Whatever one thinks about the wisdom of Treasury's advice to the fourth Labour government, it cannot be said that the policies were rigged to serve private motivations or hidden agendas. Just like any other ideologically and theoretically coherent set of policy proposals, their purpose was to give effect to a particular view of government's role in the economy and society. Toward that end, they employed the tried and true rhetorical method of asserting the absolute superiority of their approach ('there is no alternative'). Had the reformers been arguing the absolute superiority of a different body of doctrine - whether social capital theory, feminist theory, Keynesian economics, Methodist Socialism, post-positivism, liberation theology, or whatever you like – the sources and content of the criticism may have been altogether different.

This policymaking episode also helps to identify an important feature of good practice advice. The advisers to the fourth Labour government drew from several streams of theory to build their policy architecture, and this no doubt has contributed to the remarkable durability, or hybrid vigour, of its basic elements. Had the election of 1990 gone differently, yet more streams of thinking could have been incorporated, including perhaps a more social democratic approach to social policy, which, combined with the economic and state sector reforms, would have constituted New Zealand's unique brand of third-way governance.

Critics who worry about ideological narrowness among policy advisers would do well to encourage broad exposure of public servants to a spectrum of theories, policy ideas, and worldviews, rather than arguing against theory-based policy formulation on technocratic grounds. This does not mean that every policy paper should contain a full array of ideologically tailored options from the political left to the right. Most ministers would not tolerate such a practice for a moment. Over time, however, policy advisers can and should be expected to develop and keep up to date their own cognitive maps of their policy field, including both basic descriptive data about the relevant phenomena (whether clients or environmental patterns or economic indicators) and some sort of multi-dimensional chart that locates competing policy approaches in ideological space.

Armed with such a virtual map, advisers would be able to break out of the usual ideological stereotypes, place the government of the day's policy preferences in a larger context, combine smart practices across political brands, search for solutions suggested by the descriptive data, avoid capture by policy fads, and reduce the problem of policy whiplash (see box p. 9).

What is good practice in public argument advising?

Before the idea of distinguishing public from non-public policy rationales can become a useful guide for practice, criteria for making these judgments are sorely needed. The basic concept derives from philosophy's liberal restraint principle, which holds that citizens (including officials) who propose policies that involve coercion of their fellow citizens ought to restrain from using non-public reasons to support those proposals, out of respect for each other and the democratic system. Public reasons are understood as the kinds of reasons that other reasonable people might accept as reasonable without necessarily having to agree with them. The distinction between toleration and agreement looms large here. In

a system that values toleration, citizens should be able to accept a reasonable policy argument or rationale as worthy of democratic consideration and public debate while also disagreeing with it.

This formulation of the liberal restraint principle still leaves much to the imagination, however: What is a reasonable person? What might she reasonably accept as a tolerable argument? What about groups in society, such as religious fundamentalists, who reject the liberal restraint principle altogether? Philosophers have debated these points vigorously, and notions of what qualifies as a public reason will vary from society to society and age to age. A lot of work is needed to translate the abstract principle of liberal restraint into practice.

At a common sense level, the public argument approach simply requires analysts to ask themselves: What can I honestly and unashamedly say to my fellow citizens about the merits of this policy? Am I asking my fellow citizens to suspend either their core values or their common sense in order to support this policy? Beyond these deceptively simple questions, the job of recognising, building, testing, repairing, and refining public arguments for policy requires a sophisticated mix of skills, methods, and sensitivities. It requires confidence and clarity about the adviser's place within the larger policymaking process as well as finely tuned ethical radar. I agree with Gregory (2004, p.311) that policy advisers should be people 'who embrace political interaction; and who are both comfortable and effective in complex, conflict-ridden, uncertain, and transformational policymaking contexts,' but they also need to recognise the kinds of situations in which they ought to feel uncomfortable, as when they are expected to participate actively in non-public policy and politics.

A good practice agenda going forward could focus on developing the following features of a public argument model for policy advice:

- Establishing clearer principles and rules of thumb for distinguishing public and non-public policy rationales.
- Scanning the ideological and evidence terrain and building cognitive maps of a policy field, as described in the previous section.
- Developing better methods for building and testing arguments. For example, intervention-logic-type and results-chain-type methods can be used to describe the arguments behind particular policy instruments, including both high-level rationales (which sit at the top of the chain linking policy to big-picture goals) and lower level delivery plans (which sat at the bottom of the chain and focus on implementation imperatives and risks) (Baehler 2001, 2003).
- Using evidence to build and support the argument framework. Note, here, that evidence is not the basis of policy. It is one ingredient in the overall argument, which consists of evidence linked with logic linked with an appeal to people's values and emotional commitments.
- Engaging ministers in the shared goal of building good public arguments. Policy advisers must give expression to ideas and aspirations that are often inchoate and complex. To do so requires both a good, collaborative relationship with the minister so that the minister's ideas can be drawn out and developed, and an eloquent tongue (pen) for articulating the ideas honestly, accurately and in ways that will help build political coalitions and win public support. In particular, advisers need to be able to engage ministers in crafting the outcome statements that sit at the top of results chains.

Conclusion

The most significant contribution that policy advisers can make to policymaking is to focus intently on the job of tending a broad range of public arguments and thereby feeding the connective tissue of political association. This role description, though simple in principle, seems rich enough to provide a steady focus for good practice across the ups and downs of ministerial demand, continuity across different types of tasks and relationships, guideposts when ethical dilemmas arise, and a bulwark against the pressures for advisers to become either political hacks or pointy-headed evidence purists. Thus, the idea of public arguments for policy provides not only a bridge between political and policy logic, but also an architectural structure for understanding the role of policy advisers within the political and policymaking system.

This article both argues with and expands upon Bob Gregory's critique of rationalist policy analysis in order to begin sketching how an alternative approach to good practice might emerge. Considerable further work is needed to develop this approach, and the few broad

strokes presented here are meant to stimulate comment and draw others into the enterprise. They are meant to focus attention again on the question: What, then, should the policy adviser do?

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How to Treat Policy Whiplash

Karen Baehler

Election day approaches, and conversations around Wellington are turning to what I will call policy whiplash. Opinion polls indicate that New Zealand voters may replace their current centre-left coalition government with a new centre-right government, in which case public servants would be asked to reverse policy direction once again in areas such as employment relations, resource management, the bulk funding of schools, school zoning, and work-for-the-dole. Over the last two decades, New Zealand has become known for its frequent changes in policy direction, epitomes of which include four major health sector restructurings, alternating models of public and private accident compensation, and alternating approaches to housing assistance based on income-related v market-based rents.

Policy whiplash refers to the effects of sudden policy starts, stops, and reversals. These effects, which include organisational instability, staff fatigue, high transition costs, and potential loss of trust in government, to name just a few, are borne by the public agencies charged with implementing change as well as the relevant sectors, such as schools, health care providers, and housing markets, which absorb the changes. In addition to producing these stresses, the habit of reverting to previous policies rather than advancing new ideas may indicate stale policy thinking and a lack of continuous improvement in policy formulation. New Zealand's multi-member proportional electoral system was designed partly to slow the pace of whiplash-like change by forcing decision makers to work in coalitions where a diversity of views and experiences must be accommodated and agendas negotiated. Slowing the pace of change does not, however, address the quality of policy thinking.

Reducing the incidence and severity of policy whiplash may depend as much on renewing the practice of policy advice within governments as it does on reengineering the electoral systems that produce those governments. The public argument approach to policy advising proposed in the accompanying article could help by encouraging advisers to be familiar with the broadest possible spectrum of acceptable arguments and ideas within their policy areas and developing their own big picture map of the ideological and evidence-based terrain, including lessons learned from past policies. Advisers with this kind of catholic perspective are less likely to become trapped in ideological stereotypes and the blunt policy instruments that these stereotypes peddle: e.g., devolve/centralise, privatise/nationalise, regulate/deregulate, universal services/targeted services. They are also less likely to be dazzled by the next new policy fashion being marketed as best practice. They are more likely to spot interesting cross-cutting policy ideas and new hybrid combinations of liberal, social-democratic, conservative, communitarian and other schools of thought.

As old problems wax, wane, and change form, and as new problems emerge, policies must continually evolve to keep pace. This does not mean that new and innovative ideas are always good ideas. On the contrary, they are often impractical, dangerous, or silly. But the process of continually scanning the full range of old and new ideas, looking for smart combinations, and cultivating hybrids may improve final policy choices and reduce the aches and pains of policy whiplash.

Value-Adding Policy Analysis and Advice: New Roles and Skills for the Public Sector

Claudia Scott[1]

Introduction

High-quality policy analysis and advice is critical to good governance. Teaching public policy for the Australia and New Zealand School of Government (ANZSOG) provides a welcome opportunity to discuss challenges and opportunities for the public sector advisory system with experienced practitioners from Australia and New Zealand. Public sector advisers in many jurisdictions recognize the existence of competition for these services from others, leading to some reflection on the comparative advantage the public sector can bring to its role (Bardach, 2000; Weimer and Vining, 1999; Radin, 2000).

This article discusses the way the public sector is adapting to the challenges and opportunities of a more contested policy environment. It begins by canvassing the distinguishing features of 'value-adding' policy advice, placing it in the changing context of policy analysis and advising in New Zealand and Australia. Next, it considers how the public sector has influenced and adapted to the changes. Suggestions are made for expanding specific public sector roles, skills and capabilities, in the interests of enhancing performance and leadership in public sector policy advising.

Value-adding policy advice

Policy advising is a profession requiring a multidisciplinary approach, using knowledge, skills and competencies that span the arts and sciences. Some describe policy analysis as a 'craft', drawing attention to the way it is context-specific and tailored for a particular client and purpose. It is difficult to get agreement among theorists about the defining features of value-adding policy analysis and advising in the context of the Westminster tradition of government. Many guidelines, templates and checklists purport to set out the qualities of good policy advice. Most of them, however, describe inputs and processes and establish, at best, the necessary rather than sufficient conditions for ensuring that advice is fit for purpose (Bridgman and Davis, 2004).

Fundamentally, the quality of policy advice is determined not by inputs and outputs, but by its outcomes. Advice must help decision-makers choose policies and associated interventions that support strategic directions and are effective in leading to desired policy outcomes. All policy is value-based, but value-creating advice is explicit regarding the values, criteria and assumptions that underpin the analysis of options.

Value-adding policy advice requires well-argued policy frameworks and the application of research-based analysis to underpin recommendations. The evidence-based policy movement is credited with encouraging more rigorous and robust policy analysis, monitoring and evaluation, and implementation. Analysts must be able to compare lessons from other countries with home-grown solutions. The increasingly global policy environment calls for a multidisciplinary approach, and a research and evaluation culture that can foster productive debate and critique in the public sector policy arm. Advisers and analysts need to read widely and anticipate changes in society and the climate of thought that may affect policy preferences and priorities.

The provision of policy advice is an industry, and it requires innovation and risk-taking to improve its performance. Like any other industry, the public sector needs significant investment in building the capability and performance of policy advisers, including investment in research and development, without which the sector's comparative advantage as a provider of policy advice and analysis will suffer (Lindquist and Desveaux, 1998). Advisers can add value by keeping abreast of

1 The author wishes to thank Karen Baehler and Jonathan Boston for comments on earlier versions of this article. Any errors are the sole responsibility of the author.

changes in the policy environment, including trends and developments in other countries.

Measuring the quality of and value added by policy analysis and advice will always be difficult. But we can do better than crude measures such as 'proportion of advice taken' or 'ministerial satisfaction'. However judgments are made, it is clear that assessments of quality and value need to have regard to both professional standards for value-adding analysis and advice, and to key features of the particular context, including the preferences and priorities of decision-makers (Uhr and Mackay, 1996).

The changing context of policy analysis and advising

Policy advisers in the Westminster system are apolitical, and serve successive governments irrespective of political stripe. While discussions of advice often portray a simple relationship between an agency and a minister, many government departments work to several ministers. Ministerial advisers are becoming a significant force, particularly in Australia, and the interface between these advisers and public sector advisers can be difficult, given the different roles and timeframes to which they work. Public servants report that their work is increasingly concerned with implementation and consultation rather than new policy design. Parties in opposition develop new policy platforms; but once in power, they find that coalition governments can be tightly bound by policy agreements, with less room to manoeuvre than in the past.

When the political environment lacks stability, it becomes difficult for the public sector to play a leadership role; and the instability can, at worst, hamper the development of strategic policy frameworks with a longer-term focus. This raises issues about how to balance the public sector's need to be responsive to policies and priorities of the government of the day against ensuring it has the capabilities and capacity to serve future governments with quite different priorities and policy settings.

There is no lack of challenge coming from the 'wicked' public policy issues before governments in New Zealand and Australia. Departments and ministries are addressing ambitious policy outcomes involving multiple, often conflicting, goals. Agencies are dealing with tough issues, about which there is little agreement regarding the nature of the problem and whether the public sector can assert jurisdiction and secure the necessary buy-in from others (Roberts, 2004).

New paradigms and ideologies are shaping public action. External threats to security, such as terrorism and public health risks, are creating new roles for governments, and requiring closer linkages between different policy areas. Top-down approaches to policy development are being replaced by the formation of policy networks that can more easily draw contributions from many sectors and agencies.

Whole-of-government processes and approaches to policy development are becoming well-established in many jurisdictions. In New Zealand this term refers to the need for seamless horizontal and vertical integration across agencies; however, in Australia it relates primarily to connecting up agencies at the federal government level (Ministerial Advisory Committee, 2004). In both countries, opportunities are expanding for partnering with organisations and stakeholder groups outside of government. An associated challenge to the public sector is to provide policy analysis and advice that reflects the diversity of values and viewpoints held by citizens and decision-makers.

Despite increased efforts to consult at local and state/regional levels, power over key public policy decisions is still concentrated at the central level in New Zealand and at the federal levels in Australia. Existing structures, and the way they assign roles between the federal government and states in Australia, and between central and local governments in New Zealand, are constraining whole-of-government policy developments on specific issues in areas such as transport, water supply, environment and health.

Special intergovernmental arrangements in Australia try to address these issues, but appear to lack sufficient collaboration and coordination to develop integrated policy approaches. In New Zealand, the Local Government Act 2002 has mandated that each local government facilitate the development of a Long Term Council Community Plan to deliver economic, social, environmental and cultural outcomes. Successful local government strategic planning requires significant collaboration and partnerships with key central government agencies and the private sector. This is particularly important since responsibility for the funding of major programmes that influence these outcomes belongs to central government ministries.

While analysis and advising in the public sector demands more skills and more complex roles, the concepts and frameworks underpinning policy analysis and advice remain somewhat simplistic. Models of policy development have tended to adhere to the basic 'policy cycle model', with additional requirements perceived as add-ons to the basic multi-stage approach. There is also a need for greater integration of the stages in policy development, including better linkages between policy design, implementation and monitoring of results. More comprehensive mapping of roles and styles, as has been done for the Netherlands (Mayer, van Daalen and Bots, 2004), has the potential to provide suggestions for new roles which could be adopted by policy analysts and advisers in New Zealand and Australia, with a view to providing further value to decision makers.

Adapting to changes in the policy environment

Some public servants, and indeed whole departments, feel constrained from exploring new approaches, particularly in sensitive policy arenas. Thin political majorities make governments more vulnerable to criticism from opposition parties for policy failures. Some public servants suggest that the policy environment has discouraged innovation, experimentation, and the piloting of new policies. Some agencies appear to be concerned with minimizing risk rather than managing it, thereby constraining their ability to provide advice that is new and innovative.

There are interesting debates as to whether changes in the policy environment, to some degree, are a response to perceived limitations and lack of capability in the public sector advisory system. During the 1970s and 1980s some political leaders and governments in Australia and New Zealand expressed concern about the public sector's lack of responsiveness and limited capability to quickly implement new directions in policy development (Scott, 2003).

Some public servants in both New Zealand and Australia assert that the current policy environment provides inadequate encouragement and support for strategic thinking, because medium-term policy settings and innovative policy approaches can challenge conventional wisdom and may be unpopular with individuals, interest groups or ministers. Others are more optimistic and see opportunities for public servant advisers to work more effectively, by forming relationships and partnerships with universities, research institutes and other sources of analysis and advice. The Australian public sector has a stronger tradition of research and analysis being undertaken outside the public sector, making it easier in some cases for the public sector to explore new policy directions that are not popular with the current government.

A more informed and engaged polity also assists advisers in designing and implementing new policy approaches and fostering public sector innovation. There are benefits when public policy issues can be debated across party lines and a wide range of different views can evaluate alternative policy options and strategies.

Allan Behm, an Australian defence strategist and former public servant, suggests that public servants are quite proficient in the core *transactional* policy skills, which involve delivering factually correct, well-informed policy products that present the adviser's conclusions honestly and fearlessly (Behm et al, 2000). Based on extensive interviews with current and former ministers and senior officials, Behm and his colleagues suggest that public servants are, however, less skilled at *transformational* policy advising, which looks beyond immediate facts and conclusions and brings to the advisory task a combination of vision, creativity, political awareness, risk sensitivity, and holistic understanding of government's aspirations. Transformational advice requires attention to medium-term policy settings and system approaches and perspectives to drive policy analysis.

The Behm et al model of value-creating advisory services has sparked considerable debate. Some critics have raised concerns that providing transformational policy advice to ministers has the potential to shift Australia from a Westminster to a more politicised 'Washminster' approach to policy advising.

Others have embraced the model, including many chief executives and senior managers in New Zealand and Australia who have responded with initiatives designed to enhance the quality and value-adding nature of public sector policy advice. Several of these initiatives foster a more strategic approach to policy development, though many different approaches to strategy have been adopted.

Some initiatives promote strategic thinking and medium term policy options and settings. Others are more

concerned with developing technical skills, such as environmental scanning, modelling, scenarios and futures research.

Expanding roles and skills

There are signs on both sides of the Tasman that senior public servants are taking up the challenge of enhancing policy capability and performance. In May 2005, Lynelle Briggs, newly-appointed Australian Public Service Commissioner, called on the public sector to exhibit "a passion" for policy in the pursuit of desired policy outcomes. She invited the Australian Public Service (APS) to take up the challenge of the more contested policy advisory market, to leverage off good research and evidence, and to add value by exploiting those features that position the APS well in the new environment. Such features include the public service's institutional knowledge and experience, its access to information and expertise, and its independence relative to competing sources of analysis and advice – many of which focus on crafting evidence suited to a particular perspective or interest group, rather than a vision of the public interest.

In a presentation to participants in an ANZSOG policy course in Brisbane, Dr Leo Keliher, head of the Queensland Department of Premier and Cabinet, voiced concern that 'evidence-based policy' has become a public policy mantra, and needed further examination. He suggested that the public sector has a comparative advantage in subjecting research and evidence to scrutiny, with a view to improving the accuracy, consistency and integrity of information, evidence and advice.

Providing advice that adds value to outcomes will require cross-agency and inter-disciplinary collaboration. Issues confronting today's government do not sit neatly within the portfolio responsibilities of one or even a few Ministers or agencies, and many issues have ramifications beyond a single jurisdiction. Performance will be enhanced by fostering closer linkages between policy design, implementation and research and evaluation roles. Functional integration within and across agencies is also required if a whole-of-government approach to policy is to become a reality. Coordinated state services was identified as one of six goals required for delivering world-class professional state services which serve the government of the day and meet the needs of New Zealanders (SSC, 2005).

High performance advising relates to the success of analysts and advisers in working with citizens, stakeholders and key players in the policy analysis and advisory market. It will be fostered by adopting a strategic approach to policy development and enhancing opportunities for strategic thinking and conversation. Strategic thinking is not simply thinking about medium-term policy, but rather a specific approach to thinking. The Liedtka model portrays strategic thinking as a distinctive approach to thinking which includes five elements: a systems perspective; intent focus; intelligent opportunism; thinking in time; and a hypothesis-driven approach (Lawrence, 2003). Strategic thinking questions underlying assumptions and parameters and is sometimes regarded as analogous to double-loop learning. Strategic thinking, at its best, disrupts status-quo-driven thinking by creating a gap between today's reality and a more desirable future.

Strategic conversation provides opportunities to make connections between various events, issues and ideas, to explore patterns and trends, and to consider the systemic structures and dynamics and worldviews which may have shaped these events. Marsh (2001) suggests that limitations on Australia's ability to have strategic conversations are constraining its ability to enhance strategic policy development.

As policy processes become more complex and extend beyond simple exchanges between advisers and decision makers, more robust and comprehensive approaches become necessary. Yet many government agencies continue to discuss policy analysis as a multi-stage process of applied decisionmaking, which oversimplifies the complexity of the current policy environment.

Benefits can accrue from reflecting on the different roles and related styles which can be adopted by policy analysts and advisers and the corresponding skills, capabilities and smart practices. Thinking more closely about roles can help the public sector to identify areas where it has a comparative advantage relative to others. Embracing a wider range of roles, approaches to and styles of policy analysis and advising will increase the opportunities for public sector advisers to extend their policy leadership role. Of course, adopting some roles will require a change of culture so as to accommodate more collaborative ways of working with citizens and stakeholders.

Dr Peter Shergold, head of the Department of Prime Minister and Cabinet in Australia, has called for the public sector to promote new forms of horizontal governance by focusing on the need for joined-up government, community engagement, and the relationship between the two concepts. He argues that the nature of the interaction between government and communities must change from consultation toward collaboration.

Effective responses to emerging policy challenges cannot respect organisational barriers; and whole-of-government approaches should consist 'not in rearranging the bureaucratic structures but in modifying the networks between them and the behaviour of those who work with them... Nothing can so undermine partnership as a view that government knows best' (Shergold, 2005, p. 1).

Individual agencies and departments must become less concerned about who is leading and in charge, with a view to working in a more collaborative way across government departments and at different levels of government. This approach can then be extended to working more effectively with NGOs and private-sector organizations on policy development. Improving research, evaluation and analytical skills will create new opportunities for public servants to develop formal and informal partnerships and relationships and to build skills to support higher levels of policy capability and performance.

Working in a more open environment for policymaking will require new skills and a change in culture to maximize the leadership potential of the public sector. A more pro-active role for the public sector in encouraging and facilitating policy analysis and debate will have benefits, including a longer-term perspective on policy opportunities and challenges, and the ability to work toward a consensus on appropriate medium term policy settings.

Conclusion

There are unrealized opportunities for the public sector to create additional value in policy analysis and advising. Public sector advisers need to devote more attention to networking with other key contributors to public policy analysis and advising. They need closer linkages to important sources of information and analysis, and should forge closer relationships with clients, customers and stakeholder groups. New skills in strategic thinking and conversation are needed, as are closer linkages between policy design, implementation and research and evaluation. The public sector must be proactive in exploring opportunities for policy leadership, while also expanding the range of leadership approaches and styles which it embraces. Sometimes the public sector should lead from the front. Other times, it must facilitate leadership by others, or form partnerships and collaborations to move the policy agenda forward.

As analysts and advisers adopt different roles in policy development, they will require different skills, capabilities and styles of leadership. Expertise need not be provided exclusively by the public sector; and public service advisers should identify specific roles, activities and topic areas where they have potential and comparative advantage to contribute and should contract out work and also encourage and facilitate analysis and activity by others.

Added value in policy analysis and advising will be enhanced by a more robust and engaged polity. Policy analysts and advisers can play value-adding roles in fostering democratic participation and political engagement and leadership on specific issues. It is important to ensure that the abilities of both advisers and decision makers are being developed to maximum potential, and that both groups are more aware of the various ways in which policy leadership can be advanced.

Making a policy advisory system more innovative and transformational will require effort and commitment. While maintaining the benefits of the Westminster tradition, the public sector can nevertheless play a bigger role in encouraging deliberation and decision making on medium-term issues. Public sector policy leadership can be extended by developing the public sector's capacity to anticipate policy challenges and opportunities, thereby enhancing the ability of governments and citizens to respond to and shape the future.

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Contemporary Economic Games

Antong (Andres G.) Victorio[1]

Introduction

The economic theory of games derives its name from the study of strategic interactions - games - between individuals known as players who are thought to be rational, self-interested and informed. The players use the information to form beliefs about each other's intentions. Their options for a decision are known as strategies. Their benefits or costs are known as payoffs and their decisions can be an equilibrium. The players may choose whether or not to cooperate with each other. If they do not cooperate, the theory is that of a non-cooperative game and the players are in a situation of conflict.

The prospect of a conflict imbued with rational calculations makes non-cooperative game theory relevant for predicting the outcomes of a wide range of public policy issues. For many such issues, the decisions are made by organizations and nation-states rather than by individuals. In order that game theory can continue to apply, the decision-makers must be just as motivated and informed as the rational individuals of a game. Also, the decisions must not instead be propelled by bureaucratic processes and pathologies, for these can clearly displace original intentions.

This article describes three examples of non-individualistic games. Global trade negotiations are shown as a conflict where countries inevitably inflict upon each other mutual harm. Union participation is seen as the consequence of sequential responses where a threat of reprisal is not credible. And finally, the invasion of Iraq by the United States (US) and coalition forces in 2003 is cast as a best response to an unknown Iraqi weapons-decision given a tolerable ranking of policy alternatives. For these and other examples, the underlying uniformity is that of a conflict between non-cooperative players that generates an outcome according to some equilibrium.

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The prisoners' dilemma and trade negotiations

The most-common concept of equilibrium in games is undoubtedly that from an example known as the Prisoners' Dilemma. Two selfish and unprincipled *prisoners*, confront a *dilemma* about whether or not to confess to a crime that they both committed. The game's defining characteristic is that both prisoners will want to confess even though their collective interest is maximized by neither of them doing so.

A Prisoner's-Dilemma type of game can serve to explain why international trade negotiations often fail to achieve the removal of import tariffs. Tariffs are inefficient because they entice trading countries to locally-produce goods that can be produced more cheaply abroad. Their removal is therefore potentially beneficial to all negotiating parties. For some facts, consider how in 1995, when the World Trade Organization (WTO) was created to foster trade, international import tariffs were particularly excessive in agriculture. During that time, countries classified as "high-income" were estimated to have been charging "low-income" countries an average tariff of 15.1 percent for agricultural imports, at the same time that the latter were estimated to have been charging 21.5 percent upon the former (Hertel et al, 2000). The WTO felt it necessary to moderate the balance through tariff-removal trade talks. But never once did the launching of such talks succeed. It failed in Seattle in November 1999 and again in Cancun in September 2004.

Consider the suggestion that a 40 percent reduction in tariffs could have increased the real income of all countries (both high and low-income ones) by an

estimated $60 billion dollars per year (see Hertel et al, 2000). If the increase were apportioned according to import volume, the real-income gain for the high-income countries would have been $47 billion while that for the low-income countries would have been $13 billion. (In 1995, the agricultural imports of high-income countries from low-income ones were around $351 billion while those by low-income countries from high-income ones were around $95 billion.)

The payoffs in Figure 1 reflect the suggestion. Each of the players – a low-income country and a high-income one – can choose to *Do Nothing* about its high import tariffs. If both choose this strategy, there are no gains to be realized from a more efficient system of trade. If instead both choose *Repeal Tariffs*, the total gain of $60 billion is proportionately allocated as $47 and $13 billion. If one country chooses to repeal its tariffs while the other does not, there is a transitional (and equally applicable) cost of $C billion in terms of local job losses. These losses are emphasized because they are typically lobbied for more than any gains a country may make from cheaper imports. The country that does *not* repeal its tariffs can enjoy an interim benefit of $B billion, corresponding to an increase in its export earnings.

Figure 1. Global Trade Payoffs: Agricultural Imports, 1995

		Low-income Country
	Do Nothing	Repeat Tariffs
High-Income Country		
Do Nothing	(0,0)	(47+B, -C)
Repeat Tariffs	(-C, 13+B)	(47, 13)

It is apparent that each country is *always better off choosing Do Nothing* even though the highest sum of players' payoffs can be that for both of them choosing *Repeal Tariffs*. Such a sum for joint payoffs (of $60 billion) is highest provided that the net transitional benefit (B-C) is less than $13 billion. Thus it can be said that the repeated failures of global trade negotiations are the consequence of a Prisoner's dilemma, there being a disparity between what players will want to choose for themselves and what *they ought to choose* for their collective interest. The proper role of government - or the WTO in this example - is to find the power to enforce a binding agreement that none of the players wants for itself (see Victorio 2004 for other examples).

The dominant-strategy equilibrium and the Nash equilibrium

In Prisoners'-Dilemma games, the strategy chosen by each player has a payoff that is superior to that of the other strategy in all possible cases. This can be generalized. A strategy is said to be dominant if it is a player's best strategy *regardless* of what the other player does. If each of the players has a dominant strategy (for example, *Do Nothing* in the preceding case), the corresponding strategies are known as a *Dominant-Strategy equilibrium*. A Dominant-Strategy equilibrium is also a *Nash equilibrium*, defined as *best-response strategies that neither player will want to deviate from given that the other does not*. However, the former requires that each of the two players has a dominant strategy while the latter does not. Because of this a Nash equilibrium can be made to apply to a wider range of games.

To illustrate the difference between the two equilibrium concepts, consider the removal of any export-earnings advantage to the country that decides to do nothing if the other repeals its tariffs. This is tantamount to assuming that B is zero. A consequence is that neither of the players now has a dominant strategy. While the high-income country will still want to do nothing if the low-income country repeals its tariffs (0 > -C), it *feels indifferent about what to do* if the low-income country decides to repeal its tariffs (it gets $47 billion either way). Its former choice *Do Nothing* is no longer dominant because it is advantageous only if the low-income country does nothing. The rest of the time, the strategy is *felt indifferent toward*. The same thing can be said about *Do Nothing* if instead the strategy were instead wielded by the low-income country.

The reduced advantageousness of *Do Nothing* qualifies it for a reduced rank, that of a *weakly-dominant strategy*, defined as clearly advantageous to use sometimes and felt indifferent-toward the rest of the time. Above, the "sometimes" is when the other country also does nothing while "the rest of the time" is when the other country repeals its tariffs. With both of the players now converted to having a weakly-dominant strategy rather than a dominant one, the strategies (*Do Nothing, Do Nothing*) are now still an equilibrium. But rather than this equilibrium being a dominant-strategy one, it is now

"merely" a Nash equilibrium because it is composed of strategies that are best-responses to each other with neither player having a dominant strategy yet neither wanting to deviate from its choice.

Backward induction: union membership reprisal

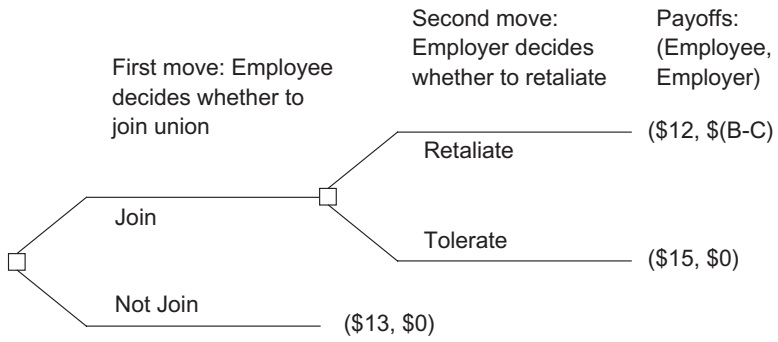
Weakly-dominant strategies can present the prospect of there being more than one Nash equilibrium. The prospect is uncomfortable because it introduces predictive imprecision: if the number of predictions to a game becomes anywhere close to the number of possible events, there might as well be none. In the preceding example of weakly-dominant strategies, a second possible Nash equilibrium is that of *(Repeal Tariffs, Repeal Tariffs)*. The reason is definitional: for this pair of strategies, neither will want deviate given that the other does not. (If the high-income country deviated while the low-income one did not, its payoff would remain at $47 billion, so why deviate? Analogously so for the low-income country.)

A single equilibrium can sometimes be narrowed if the game is instead a sequence of moves rather than a set of simultaneous decisions made by two players. The resulting description is known as a game tree or a dynamic game. The sequencing allows for an elimination of Nash equilibrium solutions that are not persuasive.

Thus consider a sequential game of two players, an employee and an employer, where decisions pertain to union membership. In the US, it is estimated that employees who join a union can earn a higher wage than those who do not, the wage premium being between 12 and 18 percent depending upon the extent to which other wage factors are controlled for (see, for instance, Budd and Na 2000). The reasons may stem from the greater power that a collective membership possesses when negotiating with an employer.

In the game, let the employee be the first to decide whether or not to join a union. Let the employer be the second to decide, who in spite of legal duties can choose to *Retaliate* against a union membership by way of punitive measures pertaining to tenure and promotion. The punitive measures yield for the employer a benefit of B dollars per employee-hour (in labour-cost savings) and entail a potential cost of C. The employer's alternative is to *Tolerate* the membership. Given this and if the employee were to join, the employee succeeds in obtaining a union wage of $15 per hour. If the employer were to retaliate, the wage is reduced to $12 per hour. Finally, if the employee decided not to join the union, the obtainable wage is $13 per hour. These payoffs are summarized in Figure 2.

Figure 2. A Game Tree



To uncover whether the game has any Nash equilibrium, one first investigates the optimal decision for the player at the end of the game tree. Then, given this decision, one *works backward* to investigate the optimal decision for the preceding player until the beginning of the game tree is reached. If $(B-C) were negative (as may be reasonable to assume of anti-discrimination laws), the employer's best response would be to tolerate the employee (zero dollars being better than a loss of $(B-C)). And given that the employer decides to tolerate, the employee's best response would be to join the union ($15 being better than $13). The joint decisions are thus *Join, Tolerate,* with payoffs ($15, $0), and these comprise a Nash equilibrium because neither of the players will want to deviate from its decision given that the other does not. This method of finding a Nash equilibrium by investigating decisions backward is known as *backward induction*. On this basis, the wage premium of union members is the result of a sequential game where membership has wage advantages to employees and punitive measures are more costly than beneficial to employers.

Non-credible threats

The option to retaliate against the employee is an example of a *non-credible threat,* defined as any threat that a threatener *does not want to* carry out (for instance, because it would imply for itself a loss) and *will not have to* carry out if believed. Non-credible threats are important because their presence can suggest the existence of a secondary Nash equilibrium that is itself not credible. This becomes apparent if one summarized the payoffs of a game tree according to a normal (matrix) form. In Figure 3, the employer's net benefit from retaliation, previously regarded as negative, is exemplified as -$1.

Figure 3. Union Membership in Normal Form

		Employer	
		Retaliate	Tolerate
Employee	Do Nothing	(0,0)	(47+B, -C)
	Repeat Tariffs	(-C, 13+B)	(47, 13)

In the normal form, there are two Nash equilibrium solutions, not one. The first is that previously predicted by the game tree which is *Join, Tolerate*. The second one is *Not Join, Retaliate*. This is also a Nash equilibrium because it qualifies the definition that if chosen by the players, neither will choose to deviate given that the other does not. It can arise simply because the employee may *believe* that the employer would retaliate.

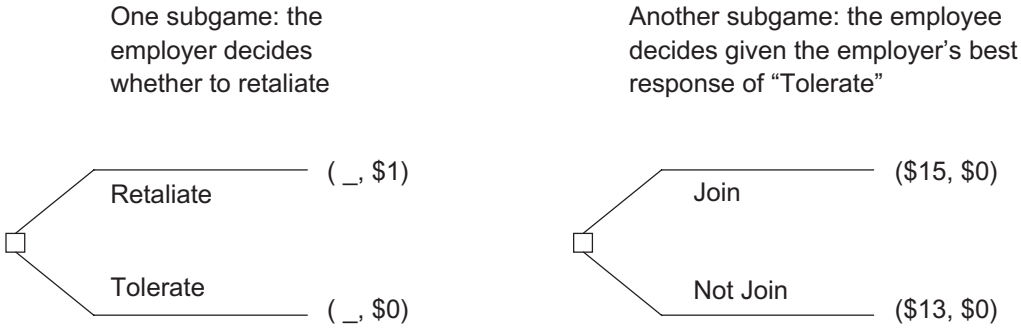
But in what sense is the second not as persuasive as the first and therefore itself *not credible*? Because the employer *no longer has to* carry out its threat of retaliation, which it knows is costly. (The equilibrium payoff to the employer is $0, not -$1, even though its equilibrium strategy is *Retaliate*.) Knowing this, the employee can gain by choosing to *Join*, which in turn elicits no other best response from the employer but *Tolerate*. As a result, what eventually re-emerges is the first equilibrium of the game tree – *Join, Tolerate.* In sum, the second equilibrium is *not credible* even though it is a Nash equilibrium, because it is based upon a *non-credible* threat that the employee must somehow *believe* and which the employer *does not want to carry out and does not have to* either.

Sub-games and sub-game perfection

Another way of repudiating the credibility of the second equilibrium is to say that it is not one that would emerge if all of the best responses were tabulated. The tabulation is conducted by first uncovering all of the sub-games of a game tree, each defined as any entire-remaining portion of the game to the right of an available decision node. When examined, each of the sub-games implies a best-response for the player making the decision. If all of these best responses (corresponding to all of the sub-games) are assembled together, the results are the strategies of a Nash equilibrium that corresponds to the credible one, e.g. the first equilibrium of the previous game, not the second one. The tabulation thus implies that if there were ever an equilibrium based upon a non-credible threat, it could be rigorously eliminated.

Applying the tabulation to the previous game tree, one uncovers two available decision nodes and therefore two

Figure 4. The Two Subgames. Payoffs: (Employee, Employer)



sub-games. In no particular order, the first is all that remains beginning from the employer deciding whether or not to tolerate the employee. The second is all that remains beginning from the employee deciding whether or not to join the union *after* the employer has decided upon its best response. This second sub-game is the entire game itself; in the right-hand-side in Figure 4 it is shown in a *reduced form,* that of the second-mover (the employer) having already decided upon its best response (*Tolerate*).

In the first sub-game, the best response is for the employer to *Tolerate*. In the second, the best response is for the employee to *Join* (given that the employer decides to *Tolerate*). These best responses form the strategies of the Nash equilibrium *(Join, Tolerate)*, a solution that eliminates the non-credible equilibrium that was previously discussed *(Not Join, Retaliate)*.

Clearly, an equilibrium that derives from the best responses of all possible sub-games must have a special rigour attached to it. For this reason, such equilibrium solutions are known as *sub-game Perfect.* Formally, a Nash equilibrium is also a sub-game-Perfect Nash equilibrium if the strategies contained in it are the best responses obtained from tabulating all the sub-games of a tree. A sub-game-Perfect Nash equilibrium is for a game-tree the way a dominant-strategy equilibrium is for a matrix of payoffs. Each is a more-focussed definition of an equilibrium than is merely required of a Nash.

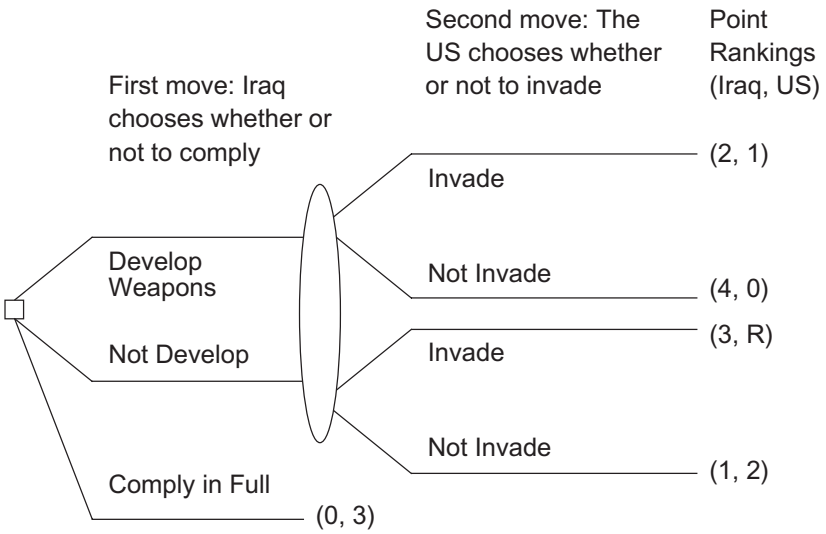
Game trees with imperfect information: Iraq versus the US

Quite often the one who makes the second move does not know which strategy was chosen by the one who made the first move. For instance, while the employer might know the employee's possible strategies, privacy laws might prohibit it from immediately finding out which of the two was chosen at the point of having to decide whether or not to *Tolerate*. In such a case, the game is said to be *dynamic with imperfect information.*

An example is the second invasion of Iraq by the US in 2003. The decision to invade was partly motivated by unsure expectations that Iraq's Saddam Hussein had developed unacceptable weapons of mass destruction. However, after the invasion inspectors could not find any strong evidence that such weapons were ever developed during the years that Iraq was under UN sanctions. In retrospect, the US made a decision to invade not knowing for certain whether or not the weapons had been developed.

The invasion can be regarded as the culmination of a dynamic game where Iraq moved first, followed by the US (see Figure 5). The game tree for it is such that Iraq can choose from among three strategies: *Develop* the weapons, *Not Develop* the weapons or *Comply in Full* with UN sanctions and resolutions. The third strategy – *Comply in Full* – includes not just avoiding the weapons development but also

Figure 5. Imperfect Information: Iraq vs. US



providing full disclosure of all military and economic activities in order to avoid reprisals. If this strategy is pursued, the US does not have to make a move and the game ends. For any of the others, the US can choose from either *Invade Iraq or Not Invade*. An oval is drawn around the options of the US in order to reflect its uncertainty about which strategy has been chosen by Iraq.

The payoffs are point rankings that might have reflected each country's national interests. Iraq is regarded as best off if it develops the weapons and the US does not invade (3 points). Its next-ranked outcome is not developing the weapons while invaded (2 points): for the destruction caused by the war is compensated by vindication in the international community. Next is developing the weapons despite a subsequent invasion (1 point). While this leads to destroyed weapons, the prospect of it is not nearly as severe as the loss of self-governance implied by complying in full (0 points). The payoffs suggest that Iraq will not develop the weapons if the US were to invade (3>2) and will develop if the US did not invade (4>1).

The US is regarded as obtaining a favourable outcome if Iraq complies with all UN sanctions and resolutions (3 points). Also favourable is the event pertaining to Iraq not developing the weapons and itself not having to invade (2 points). Both of these outcomes enhance its stature. Next preferred is the necessary evil of invading Iraq given that Iraq has developed the weapons (1 point). For this outcome, its war cost is regarded as justified by the added benefit of disarming what it perceives to be a malevolent dictator. Regarded as unsatisfactory is Iraq developing the weapons and itself not invading (0 points), an outcome it considers an admission of defeat. Listed as an unknown R, is the rank of the outcome that eventually materialized: that of Iraq not developing the weapons and the US deciding to invade.

Subjective probabilities as beliefs

Suppose that the game is at the point where Iraq has not complied in full with UN resolutions. However, the US does not know anything more. On what basis could the US eventually have decided upon an invasion? A useful way to begin is to conjecture that the US had in mind a subjective probability, p, associated with Iraq having secretly developed the weapons. This subjective probability, pertaining to what the initiating player (Iraq) may have chosen, is known as the responding player's belief. If this *belief* were to be combined with an acceptable rank, an invasion can be justified as having the highest expected payoff.

For example, suppose that the US ranked *Not Develop*, Invade as 1 point, (i.e. R=1), a value lower than the rank of 2 points for *Not Develop, Not Invade*. At the same time, suppose that the US also had a (probability) belief of 60 percent that Iraq had indeed developed the weapons (p=0.6). Then the *expected* payoffs for the US can be calculated using the beliefs as weights. For a decision to *Invade,* the expected payoff is 1 point (i.e. 0.6(1)+0.4(1) = 1). For *Not Invade*, the expected payoff is 0.8 points (i.e. 0.6(0)+0.4(2) = 0.8). The higher of the expected payoffs is thus for an invasion.

Accordingly, the values for the US's ranking of an invasion, R, are critically related to its belief, p. Given a fixed value for one of these variables, a high value for the other becomes a compelling reason for an invasion. A relationship between the two variables can be found by comparing the expected payoff of an invasion against the one for not invading, and then characterizing the values for R. If it were to invade, the US's expected payoff depends upon its belief and its ranking of an invasion, and this expected payoff is equal to the (points) expression: p(1)+(1-p)(R). (By definition of a probability, (1-p) is the US's belief that Iraq did not develop the weapons.) If it were *not* to invade, its expected payoff is equal to p(0)+(1-p)(2).

From comparing the two expected payoffs, the US would be expected to invade only if its expected payoff from doing so, p(1)+(1-p)(R), were greater than the one for *not* invading, [(1-p)(2)]. From this condition emerges a condition for the rank: R must be greater than the ratio given by (2-3p)/(1-p). For example, R must be at least 2 points (i.e. greater than the rank of *Not Develop, Not Invade)* if the US's belief were zero (i.e. if p=0). A rank greater than 1 point is sufficient if the belief were fifty-fifty (i.e. if p=0.5). A rank greater than 0 is sufficient if the US were *two-thirds sure* that Iraq had developed the weapons (i.e. if p=2/3).

The eventual outcome of the game *(Not Develop, Invade)* can thus be interpreted as the US's best response to an unknown Iraqi decision based upon its belief and ranking of an invasion. That Iraq might have anticipated such an invasion would then have been a compelling-enough reason for it to refrain from

developing the weapons. The outcome is analyzed differently from that of a conventional Nash equilibrium because the payoffs of the responding player (the US) are accompanied by a belief about an uncertain precedent. The belief is just as important as the payoffs in terms of projecting an equilibrium that was consistent with what happened.

Perfect Bayesian equilibrium

The equilibrium outcome *(Not Develop, Invade)* is an example of a Perfect Bayesian equilibrium which can be defined as strategies chosen for a dynamic game of imperfect information where players form beliefs about unknown previous decisions. The inclusion of beliefs makes the equilibrium distinctive from that of either a Nash or a sub-game-Perfect Nash equilibrium. The term Bayesian derives from Bayes's theorem, which in statistics describes the solution for a conditional probability given some knowledge of the likelihood of preceding events. Cast in terms of this theorem, the US's belief about Iraq's unknown decision is a conditional probability derived from knowing Iraq's non-compliance with UN resolutions and its apparent history of having used such weapons in the past.

Conclusion

The preceding examples have all been founded on the assumptions that players are rational, self-interested and informed. Also, they ignore other important player considerations such as ethical commitments. The reality of policy making of course is much more complex, for one (or more) of these assumptions may not apply. Other social sciences are more acknowledging of this reality than is the science of economics upon which game theory is based.

But there are helpful developments from within the theory itself. In contravening *evolutionary* games, there is no presumption that the players are rational (Kahneman 2003). Strategies are instead compelled by genetic tendency. Those that result in superior rewards have a greater chance of being passed on to future offspring. The recipients in turn become so dominant in number that mutant strategies are unable to invade successful ones. The outcomes that eventually persist are instead defined as evolutionary-stable equilibrium solutions, rather than as Nash solutions, precisely because they are thought of as being driven by Darwinian self-selection rather than by rational intentions.

The predictive implications of such evolutionary games remain unexplored. But if genetic tendency were instead organizational predisposition, and if predisposition were acquired from strategies that were previously successful, then the decisions of organizations and nation-states can still be game-theoretic even without the theory's usual assumptions.

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Funding for Defence

Peter Cozens[1]

> The superior man, when resting in safety, does not forget that danger may come. When in a state of security he does not forget the possibility of ruin. When all is orderly, he does not forget that disorder may come. Thus his person is not endangered, and his States and all their clans are preserved.
>
> Confucius
>
> Chinese philosopher & reformer (551 BC - 479 BC)

Introduction

The Roman statesman Cicero once said that "endless money forms the sinews of war". It is perhaps just as well that the New Zealand Defence Force is not endowed with such largesse otherwise one might have to contemplate a permanently fractious state of affairs. Nonetheless, if the nation is to utilise a Defence Force it is axiomatic that it is properly equipped, sustained, managed and commanded for the various missions it is intended to perform.

The catalyst for writing this article was the government's announcement of the *Defence Sustainability Initiative* (DSI) in May 2005. This entails a commitment to invest some $4.6 billion of extra funding over a period of 10 years into the Defence budget. This article provides an overview of the significant twists and turns of defence policy over the past twenty years and supplies some answers to the question of why the DSI became necessary and what it is expected to achieve.

Differing policy approaches

In broad terms, there are three distinct periods of differing attitudes to defence policy aligned with the Lange, Bolger and Clark-led administrations:

a. The End of ANZUS (1985 - 1991);

b. A Peace Dividend (1991 - 1999); and

c. A Joint Force (1999 - 2005).

What follows is a short commentary on the first period, a more detailed discussion concerning the effects of reduced Defence budgets during the second period and finally, a broad examination of significant policy announcements and initiatives during the Clark-led administration.

The end of ANZUS

Writing in a recent issue of the *New Zealand International Review,* Dick Gentles (2005, p.7), a former Deputy Secretary of Defence, states that the Labour government under David Lange in the mid 1980s made significant changes to New Zealand's defence policy before the end of the Cold War in 1989 to:

a. include anti-nuclear policies in New Zealand's defence posture;

b. assert an independent voice in security matters and not to be inhibited by alliance arrangements; and

c. refocus defence on the South Pacific.

These measures were articulated in the 1987 Defence White Paper. Gentles (225, p.8) suggests that there was a suspicion by the Lange-led administration that the New Zealand Defence Force had been shaped and equipped to suit the requirements of allies rather than to meet New Zealand's place in the South Pacific. It is not the intention to comment on the politics of the consequent fracturing of the ANZUS alliance. However, in a practical sense, it resulted in a reduction of support from the US in the form of intelligence cooperation, operations with US forces and logistic support for the New Zealand Defence Forces.

1 The author appreciates the assistance of Jim Olsen of the Ministry of Defence with the preparation of the quantitative data.

The senior leadership of Defence who had coped with the demands of the Cold War were apparently hostile to the ambitions of the new political direction. Deep suspicions developed between the government and the senior echelons of Defence. Caught in the middle as these titans confronted one another in the change from one military posture to another, the New Zealand Defence Force suffered a detrimental loss of military capability and effectiveness.

A peace dividend

The end of the Cold War in 1989 heralded for many the potential for a welcome reduction in expenditures for Defence - the so-called peace dividend. This idea seemed to pervade political thinking during the Lange and Bolger administrations and appeared to be reflected in reduced budgets (see Figure 1). A popular misconception is the notion that a peace operation force would cost less than a war-fighting or combat capable force. It is probably true that equipment needs may differ slightly for peacekeeping activities and would therefore be in addition to those required for fully combat capable activities. This places an extra burden on the budget. Nevertheless, professional military advice is that peace operations to be successful can only be performed by properly prepared, well led, fully equipped, comprehensively trained and combat capable armed service professionals. These operations are usually dangerous and complex missions – the recent deployments to East Timor underscores this contention.

Contributions to peace operations by the New Zealand Defence Force during the past 15 years or so include East Timor, Bougainville, Bosnia, Iraq, Afghanistan, the Arabian Sea, Solomon Islands, Cambodia and several others besides. The New Zealand armed services have performed with distinction in all these missions - for example, the Australian Commander of the East Timor operation, General Peter Cosgrove, publicly stated his approbations. Nonetheless, it underscores the line of reasoning that appropriate resources are required to raise and sustain the armed services whatever their missions may be.

To compound a generally declining fiscal situation for Vote:Defence as a consequence of the Lange administration's policies, the incoming National government in 1990 accepted that New Zealand did not face a direct military threat and thus spending on Defence could be reduced. The Bolger administration cut funding to Vote:Defence, according to Gentles (2005), by some 18% in real terms and significant major re-equipment plans were shelved during its first term. In its third term of office, the administration produced the 1997 Defence White Paper; this included a long-term investment plan – but because of a subsequent change in government it was not implemented.

The effect of reduced Defence budgets

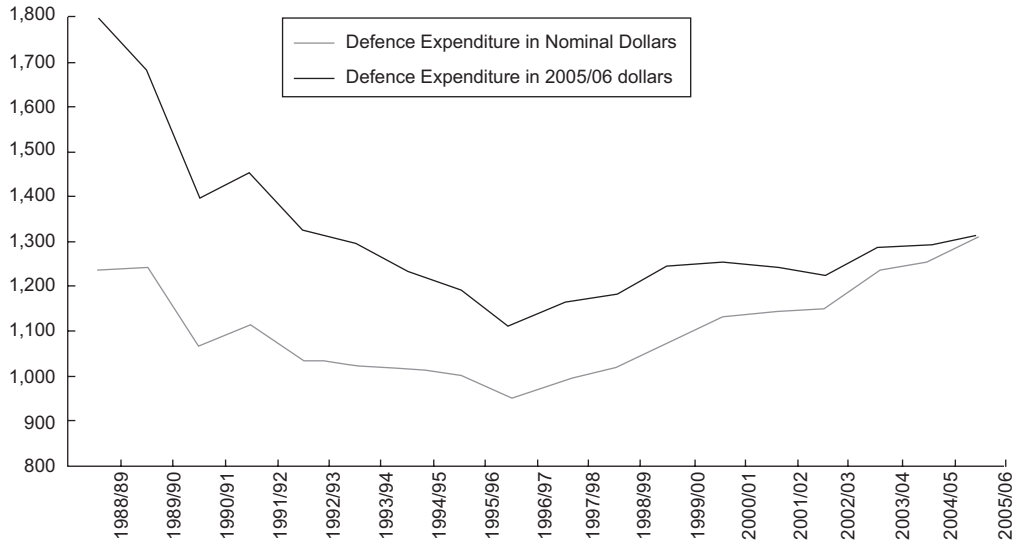
During the course of the final decade of the 20th century, different political perceptions of the role of the New Zealand Defence Force - caused in part by the end of the Cold War, the fracturing of ANZUS, peacekeeping operations and an estranged defence relationship with the US – resulted in lower budgets and investment in defence operations and infrastructure. Complicating this situation was the ANZAC ship project, a scheme to re-equip the Royal New Zealand Navy with new combat capable ships at a cost of approximately $500 million each. Two ships were ordered by the Lange-led administration. This had damaging effects within Defence where it promoted bitter and acrimonious competition between the three armed services each of which wanted to maintain or even extend its share of an ever-diminishing pool of resources.

Compromising the previous duality of responsibility, the Defence Act of 1990 divided Defence Headquarters into the Ministry of Defence under the Secretary of Defence and the New Zealand Defence Force under the command of the Chief of Defence Force. The two institutions were intended to provide contestable advice to the Minister of Defence. But a disagreeable outcome of this arrangement was a "them and us" mentality that impeded good management and the optimum allocation of sparse resources to best effect.

Figure 1 illustrates the general downward trend of the defence budget in the latter stages of the Lange-led government to 1990, a further decline during the first two terms of the Bolger administration and since the low point of 1996/7 a period of recovery.

During the first term of the Bolger administration, each of the three armed services, as part of a centrally directed policy initiative, sought to move resources "from the tail to the teeth" and to employ and reduce any "fat" in the system in the interests of fiscal

Figure 1. Defence Expenditure 1988/89 - 2005/06



Source: Ministry of Defence, Wellington.

efficiency and effectiveness. Unfortunately, uncooperative attitudes between the three services as they each sought resources for their own projects impeded and deferred important decisions of capital procurements. Rather than promoting a more cohesive and coherent military force, these policies and the division of the Defence Headquarters into separate entities tended to produce an "isolationist mentality" within Defence itself and to inculcate a sense of severe distrust with the ambitions of outside agencies, in particular, the Treasury. Not assisting the cause of prudent and effective allocation of resources within Defence were the apparently bewildering and rapid changes occasioned by the economic reforms introduced by Roger Douglas in the mid-to-late 1980s and Ruth Richardson in the early 1990s.

In August 1999, Parliament's Foreign Affairs and Defence Select Committee, under the chairmanship of Derek Quigley, produced a report entitled *Inquiry into Defence Beyond 2000*. It was extremely critical of the Bolger government's approach to the whole question of Defence. In terms of fiscal impact, there were two significant implications for the future:

a. a focus on operations in the South Pacific, and;

b. a reduction in war-fighting capacity in favour of peace operations.

A joint force

The incoming centre-left administration led by Helen Clark in 1999 accepted the broad thrust of Derek Quigley's report and in June 2000 the new administration issued its *Defence Policy Framework* based on that assessment. A précis of the five objectives follows:

a. to defend New Zealand and to protect its people, land, territorial waters, EEZ, natural resources and critical infrastructure;

b. to meet our alliance commitments to Australia by maintaining a close defence partnership in pursuit of common security interests;

c. to assist in the maintenance of security in the South Pacific and to provide assistance to our Pacific neighbours;

d. to play an appropriate role in the maintenance of security in the Asia-Pacific region, including meeting our obligations as a member of the Five Power Defence Arrangement; and

e. to contribute to global security and peacekeeping through participation in the full range of UN and other appropriate multilateral peace support and humanitarian relief operations.

Nearly a year later the government announced its intentions to re-shape the New Zealand Defence Force. It appreciated that because of previously reduced investments in Defence, resources were spread too thinly across a range of capabilities, thus compromising overall military effectiveness. Several reductions in force structure followed, including the axing of the air combat fighter force, but not necessarily as a consequence of any specific public strategic review or White Paper assessments. Nonetheless, the government stated that the key components of the New Zealand Defence Force would be:

a. a joint approach to structure and operational orientation;

b. a modernised Army;

c. a practical Navy fleet matched to New Zealand's wider security needs,

d. a refocused and updated Air Force; and

e. a funding commitment to provide financial certainty.

This particular policy initiative of a "joint" approach was intended to remove much of the previously destructive tribalism and to enhance cooperation between the three services. The recognition of "a funding commitment to provide financial certainty" was a significant appreciation of the previous handicap affecting the complexities of defence organisation and planning. These two firm policy directions provided opportunities for a more coherent New Zealand "profession of arms" as a consequence – cooperation rather than competition has obvious merit.

The Long-Term Development Plan

In 2002 the government introduced its *Long Term Development Plan* (LTDP) a planning tool to assist decision-making in respect of defence policy objectives but with a significant focus on major weapon systems and capabilities. The new scheme included provision for an injection of an extra $1 billion over 10 years.

The LTDP is a dynamic instrument that was updated in June 2003 and again in November 2004 but with an ability to accommodate other changes. Such inbuilt flexibility is a vital part of defence readiness and potency. A significant feature of the LTDP is to enhance confidence that new major capability projects will be well managed and that acquisition schemes are consistent with the government's defence policy. Procedures are therefore incorporated in the LTDP to achieve capability development and implementation on a robust and sustainable basis. The plan includes non-financial descriptions of projects, their "Policy Value", "Capability Gaps", "Links to other Capabilities", plus the all-important details of costs. Irrespective of whether there are disagreements over the actual acquisitions under consideration from a strategic or security perspective, the LTDP provides some certainty as previously proposed in the government's May 2001 *Statement on Defence*.

Some examples of the major re-equipment programme for the armed services include the following plans. Project Protector is a scheme to acquire one multi-role vessel, two offshore and four inshore patrol vessels, to be operated by the Royal New Zealand Navy. These ships will conduct tasks for and with New Zealand Customs, the Department of Conservation, the Ministry of Agriculture and Forestry, the Ministry of Foreign Affairs and Trade, the Ministry of Fisheries, the Maritime Safety Authority of New Zealand and the New Zealand Police Force. This indicates an integrated whole-of-government approach to security management in the seas around New Zealand and beyond. The inshore patrol vessels will operate around the New Zealand coast throughout the year. The offshore ships, capable of operating naval helicopters, will conduct maritime operations throughout New Zealand's EEZ and the Southern Ocean and also be used to assist Pacific Island states to patrol their EEZs. The multi-role vessel will provide a sealift facility for 250 troops, operate two naval helicopters and have an ability to transfer cargo and personnel ashore when port facilities are not available. It can also be used for disaster relief especially in the South Pacific islands after cyclones and other natural catastrophes. The government endorsed a project budget of $500 million.

The six P3K Orion aircraft of the Royal New Zealand Air Force are to be provided with substantial upgrades. This includes the replacement of the data management, sensor, communications and navigation systems, and the provision of associated ground systems - with a cost of some $150-220 million for mission systems upgrade and $60-100 million for the communications/ navigation systems upgrade.

The five C130H Hercules aircraft operated by the Royal New Zealand Air Force are to have a life extension programme. This entails the replacement of specific mechanical, avionic and structural components, and the design and installation of flight deck communications and navigation improvements to meet evolving air traffic management regulations. The cost is estimated at $100-170 million, plus a further $100-150 million for the communications/navigation system upgrade.

The New Zealand Army acquired the first tranche of 188 Pinzgauer Light Operational Vehicles (LOVs) out of a programmed total of 321 in October 2004 to replace the ageing Landrovers. The cost is estimated at $60-$110 million. This includes the vehicles, training, publications, specialist test and tools equipment, spare parts and project management costs.

These major re-equipment plans indicate a serious commitment to ensuring that the New Zealand Defence Force has the hardware to be able to perform the tasks demanded by government policy.

The Review of Accountabilities and Structural Arrangements

In addition to the LTDP the Clark-led administration also sought to improve the performance of Defence itself. This was an important measure to improve co-operation not only between the three armed services but also between civilian and military personnel within and between both organisations. There had previously been an unhelpful culture between the two institutions that precluded cooperation between some military officers and their civilian counterparts. The government therefore commissioned the *Review of Accountabilities and Structural Arrangements* (RASA), also known as the Hunn Review, which was published in September 2002. It aimed to improve not only the quality of strategic advice but also to improve cooperation, consultation and consensus building between the three services as well as with and between civilian staff. The review criticised the division of Defence into the Ministry of Defence and the New Zealand Defence Force as occasioned by the Defence Act 1990 saying that "the defence management system ... has not worked as well in practice as was hoped when it was first designed". Recommended changes included a revision of the Act itself to provide "shared responsibilities between the Secretary of Defence and the Chief of Defence Force to manage an integrated defence process". That recommendation has not been instituted. However, the RASA has certainly had a significant effect elsewhere.

In 2004 the government introduced the Capability Management Framework to replace the cumbersome Defence Planning System as part of its ongoing performance improvements. The new methodology was designed to improve transparency of the governance and management of long-term investments in Defence. It has also proved to be part of the foundation of what was to become the Defence Sustainability Initiative in 2005.

The Defence Capability and Resourcing Review

The events of 9/11 and other international turbulence during the past seven or eight years have committed the New Zealand Defence Force to operate at a much higher tempo. This has had an effect on the resilience and power of the armed services to maintain operational effectiveness. One outcome of increased activity was the exposure of significant deficiencies within the infrastructure of Defence as a whole. The government decided to investigate the problem and in December 2003 the Ministers of Defence, Finance and State Services directed a multi-agency team to produce the *Defence Capability and Resourcing Review* (DCARR).

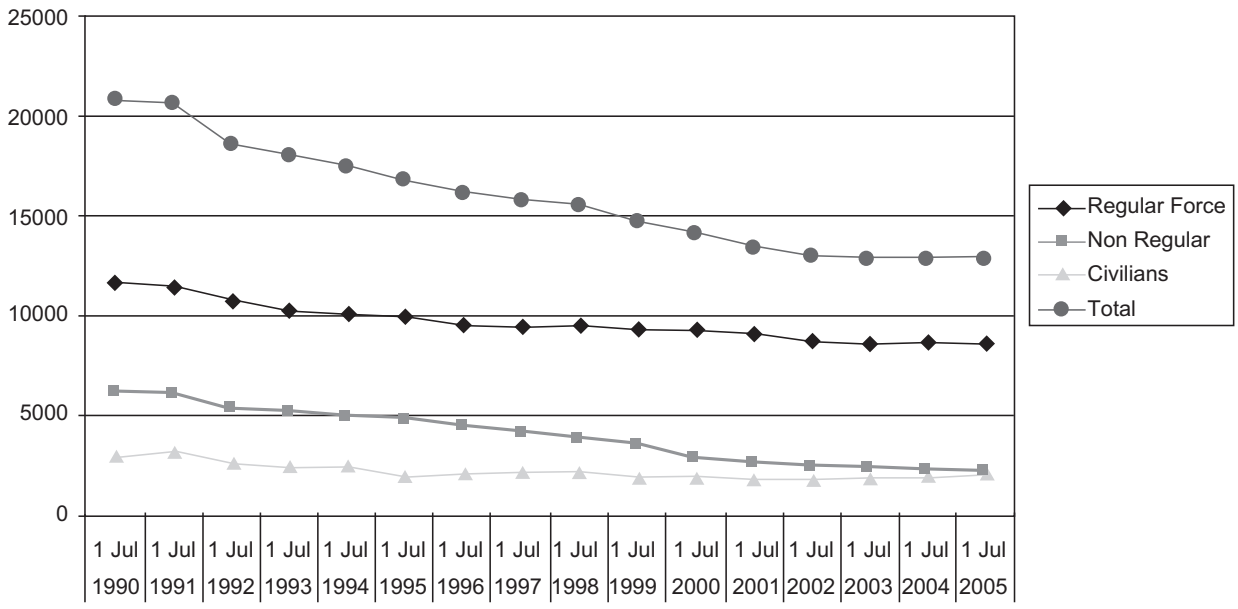
In 2004 the DCARR team conducted an exhaustive survey to establish the contemporary operating environment of the New Zealand Defence Force and its likely future requirements. The reviewers also examined the ability of the Ministry of Defence to provide policy advice. Arising from these studies the review team produced a report identifying specific shortfalls of capability, capacity and output issues but also a 10-year plan to restore them to the levels required. It may seem that 10 years is a long time in which to achieve these ambitions - however, it must be appreciated that the armed forces are comprised of people many of whom require lengthy and sophisticated training plus experience to be militarily proficient.

The review team identified a significant decline in total staff numbers, comprised of both military and civil personnel, from 20,785 in June 1991 to 12,889 in June 2004, an overall loss of about 40%. Although other parts of the economy may benefit from the acquisition of well-trained and capable personnel, the effect on the New Zealand Defence Force has been to place extra

strain on recruitment and training, thus detracting from operational potency. Figure 2 illustrates the downward trend of personnel numbers in Defence between 1990 and 2005.

at the expense of others often characterised the relationship resulting in less than optimal outcomes. It is not known who decided to insert the State Services Commission into the process of the DCARR, but this

Figure 2. NZDF Personnel Numbers as at 1 July



Source: Ministry of Defence, Wellington.

Another latent but equally negative effect on the mission capability of the New Zealand Defence Force arising from the increased tempo of operations was the effect on families of service personnel. Personnel returning from an extensive deployment overseas were sometimes required to re-engage in the same or another theatre of operations after only a short period of recuperation at home. The consequent stress on families often resulted in well trained, experienced and competent personnel making a choice to terminate their military careers. One means of correcting this problem is to increase the number of personnel under arms and to rotate them through a more measured series of operations, retraining and upskilling.

In the past, relations between the Treasury and Defence were not always constructive. Obfuscation, second-guessing, personal meddling and single service agendas

piece of ingenuity, together with the new joint approach, appears to have had a beneficial effect by helping the two traditional protagonists to be more focussed on producing optimal outcomes. The review team concluded that as a result of many years of under-investment, and notwithstanding the intentions of the LTDP, the capacity and capability of the New Zealand Defence Force and the Ministry of Defence in some very important areas were below the requirements of government policy. It was noted, for instance, that:

a. personnel numbers in the New Zealand Defence Force are below required levels;

b. in some trades the number of personnel and their trained state is deficient;

c. some major weapons platforms require upgrading or replacement;

d. some military equipment no longer meets the required standard;

e. contingency reserve stocks of ammunition, fuel and spares are depleted;

f. there is a backlog of maintenance and capital expenditure in Defence real estate; and

g. aspects of corporate management capability are depleted.

The review team acknowledged various reasons for the loss of capability, and including:

a. a prolonged period of fiscal restraint in the 1990s;

b. a higher tempo of operations since 1998;

c. equipment continuing in service beyond its economic life;

d. a strong labour market affecting the ability to recruit and retain key personnel; and

e. a reduction in the Headquarters of the New Zealand Defence Force of support capabilities due to the high and pro-longed operational tempo.

The DCARR thus identified and quantified practical problems confronting the New Zealand Defence Force and the Ministry of Defence. The developing of appropriate expertise, experience and other desirable changes will take time in an organisation that is already actively engaged and employed in complex operations overseas. The armed services are inherently conservative and traditional - it is part of the military ethos. Change, if not properly explained and executed, runs the risk of producing unwelcome outcomes.

The Defence Sustainability Initiative

In May 2005, the government announced the *Defence Sustainability Initiative* (DSI). The purpose of this plan is to not only rebuild the New Zealand Defence Force to be able to produce the military outputs deemed necessary by the government's defence policy settings but also to improve corporate management within the Defence Headquarters itself. It gives material substance to the findings of the DCARR published a few months previously. The DSI is thus the latest measure in a long string of policy formulations to improve in all respects the contribution made by Defence to the government's policy objectives.

The most important part of the announcement concerned the investment of an extra $4.6 billion in defence spending over a period of 10 years. This includes:

a. an increase of operating funding of $4.438 billion (GST exclusive) for the New Zealand Defence Force over ten years from 2005/6;

b. capital injections of up to $209 million over the period FY 2007/08 to FY 2009/10 (or later if the LTDP allowance is not exhausted by then) with a review of the appropriateness of this amount at the mid-term;

c. a permanent baseline increase of $0.844 million (GST exclusive) from 2005/6 for the Ministry of Defence;

d. the Crown bearing the risk associated with the impact on depreciation of asset revaluations for the first five years of the DSI, reviewable at the mid-term review of the DSI; and

e. a multi-year arrangement that allows for flexibility in the funding of operational deployments.

The DSI in many respects reiterates previous policy statements but in this case actually commits the Crown to provide the wherewithal. In other words, it provides funding certainty, a weakness identified several years ago in the government's Defence Statement of May 2001. Some proposals included in the plan underscore this contention, including:

a. strengthening the organisational and corporate capability of the Headquarters of the New Zealand Defence Force, and indeed the Ministry of Defence as well;

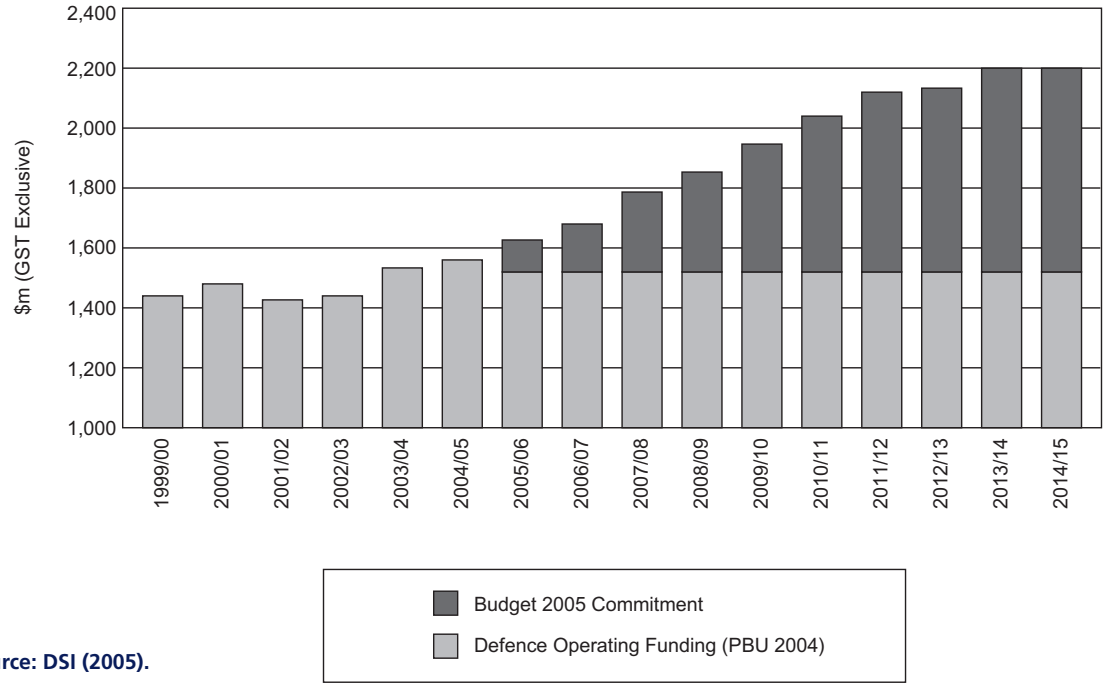
b. a new recruiting drive to lift personnel numbers;

c. the development of a New Zealand Defence Force real estate strategy; and

d. a programme to build up infrastructure including new IT capabilities.

The financial picture of the plan depicted in Figure 3 reveals a gradually increasing level of expenditure from 2005/06 for the next 10 years. This suggests a measured increase as more personnel are recruited, trained and reach the required levels of competence.

Figure 3. Defence Operating Funding – Budget 2005



Source: DSI (2005).

As part of the whole series of policy developments initiated by the Clark-led administration, future plans will include a new Strategic Plan and the expansion of the Defence Corporate Planning Framework to guide strategic management and to coordinate subordinate plans to integrate the management of personnel, infrastructure, equipment and resources.

An alternative approach

A significant expression of an alternative approach to Defence policy was published by the Royal New Zealand Returned Services Association in April 2005. It is a comprehensive survey and merits close study. Of particular importance the document states:

> The development of defence policy in New Zealand has been an unnecessarily opaque process. Successive governments have failed to consult citizens adequately. Major reviews have been far too infrequent – the most recent White Paper was done in 1997, well before the events of September 11, 2001 changed our world. (RNZRSA 2005, p. ii)

This political criticism is not without validity. Getting the nation's defence strategy right is of critical importance within a broader schema to ensure collective security. A significant weakness in the Clark-led administration with respect to New Zealand's defence policy is that there has not been a Defence White Paper or major public review of defence during the past six years within an overarching review of national security. Nonetheless, the Minister of Defence (Burton, 2005, p.6), in an address to the International Institute of Strategic Studies at the Shangri La Dialogue in Singapore in June 2005, sought to dispel criticism of this omission and instead to suggest that there were differing policy-making approaches that worked just as well. He emphasised that the approach taken by the government was "carefully calibrated, publicised and debated in our open society, and circulated to our allies and friends". A differing approach is taken in Australia where the *Defence White Paper 2000* addressed strategic policy which then guides defence policy. Following the events of 9/11 another review – *Australia's National Security: A Defence Update 2003* – was released in February 2003. In the United Kingdom, *The 1998 Strategic Defence Review* was followed by the *Defence White Paper* in December 2003. Given the rapidly changing strategic environment, it is important that defence policy is continually reviewed. The White Paper process provides a suitable vehicle.

Conclusion

The policy initiatives in Defence during the past six years offer substance, clarity of purpose and certainty. After substantial reductions in expenditure (in real terms) by previous administrations, plans and political commitment are now in place to rebuild the New Zealand Defence Force to provide an ability to meet future policy objectives. The various newly introduced corporate management and planning tools provide a robust foundation on which successive administrations will be able to build and alter capabilities as changing circumstances dictate. The adage by Confucius quoted at the beginning of this article remains germane.

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