**Military Economics: defence choices for the UK**
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The story of British defence policy since 1945 has been one of unplanned imbalances between resources, capabilities and commitments, temporarily resolved by intermittent defence reviews. These defence reviews, usually at times of economic crisis, cut capabilities but did not resolve the underlying contradictions. This pattern of alternating imbalance and reappraisal is extremely wasteful and the Ministry of Defence (MOD) has been repeatedly subject to criticism for its poor financial planning. A recent example is Lord Levene’s 2011 report on Defence Reform, which noted MOD’s inability to take tough, timely decisions to ensure financial control, its lack of financial skills and a lack of financial rigour throughout the organisation.

Given the structure of UK defence decision-making and the difficult choices now facing the MOD, there are good reasons to doubt that the 2010 Strategic Defence and Security Review and the defence reform programme proposed by Lord Levene will lead to an affordable and sustainable defence programme for the UK. This is because the changes in procedures required are not in the interests of the main groups within MOD.

The incentives faced by the main groups within the defence community (politicians, civil servants, military and industry) produce outcomes that, while rational in terms of the objectives of each of these groups, are severely dysfunctional for MOD as a whole. These incentives mean that while analysis of the problem is easy, implementation of the solution is hard, because solving the problem is in nobody’s interest.

As a small example, every analysis of defence procurement failure, from Zuckerman in the early 1960s onwards, has argued that part of the solution is to spend about 15% of the development budget in advance of big projects on technology demonstrators to de-risk the project and determine whether it will work. This is almost never done, because it is not in the interests of military or industry to demonstrate the difficulties with a project before it is approved.

The incentives generate three biases in MOD decision making.

The “optimism bias” comes from the interest of the military and industry in underestimating the time, costs and technical difficulty of weapons projects. The under-estimate gets the project into the programme; the projects are rarely cancelled when the under-estimates are revealed, and by the time the under-estimates are revealed those responsible have moved on to other jobs so no-one is accountable.

The “certainty bias” comes from the political and bureaucratic pressures to treat the world as more predictable than it is. This produces a taut plan with inadequate financial and military reserves to respond either to the genuinely unexpected or the predictably unexpected, like cost over-runs.

This optimism bias and the certainty bias distort the defence budget and the structure of procurement reducing effective capability.

The “can-do bias” leads politicians to accept commitments and the military to agree to interventions despite the lack of effective capability. In both cases this exposes the UK and its armed forces to substantial risk.

The French have avoided the optimism bias to some extent. Their procurement authority, the DGA, is staffed primarily by engineers who come primarily from specialist polytechniques sponsored by the government. They have substantial technical experience and are independent of any one military service. The French system is characterised by: hard budget constraints, projects that go over budget are regularly cancelled; the technical capacity of DGA; the iterative relationship with a small number of suppliers; and the use of contracting techniques that empower project managers.

These biases are well understood within the system. The 2011 independent report by Lord Currie noted the optimism bias: the deliberate underestimation of project costs and time-scales and overestimation of performance capability, by both MOD and industry, to support the initiation and continuation of projects in the knowledge that they are unlikely to be terminated once reality becomes evident. There is also recognition of the lack of financial and contractual skills within the MOD and the too rapid turnover of project staff. However, Lord Currie rejected the move towards the French system of more legally formalised contracting system and less changes in requirement, because of the strong cultural differences between the UK and French defence systems. Attempts are being made to improve the financial and contractual skills of MOD staff, to keep project staff in post longer and make them more accountable. Each of these innovations faces bureaucratic obstacles.

Cancelling projects that went over time or budget would provide the right incentives against the optimism bias, but this may not be credible. In the US programmes should be cancelled if a 25% overrun occurs, but rarely are as the US Secretary of Defense can override this by submitting a report detailing why the programme is essential. So projects are rarely cancelled.

The MOD has promised in a recent White Paper to publish a sustainable 10 year budget for the equipment plan. But given the incentives on the actors, long-term planning is likely to remain an aspiration rather than a reality.

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