



The Politicisation of cost-forecasting

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Introduction

- Consider cost-forecasting within the wider context of the politics and management of defence
- Consider parametric techniques along the literature on project and risk management, knowledge management and complexity management
- Appreciation of the conference organisers' readiness to allow the layman's voice

The purposes of cost forecasting

- People want forecasts for different purposes
 - appraising and comparing potential investments
 - assessing affordability and enabling planning
 - support for tender evaluation
- Cost-forecasting has a range of stakeholders
 - identical interests?
 - compatible interests?
 - different risk appetites and abilities to calculate risk

Cost-forecasting as a technical task?

- Cost-forecasting as a technical task based on skills and knowledge of qualified personnel
 - the UK MoD run-down of its expertise
 - ‘The Ministry of Defence can’t do a defence review because, to save money, it sacked all the people who could figure out what things were going to cost’
 - Bernard Gray
 - Concern in UK and US about
 - Premature forecasts
 - Biased forecasts
 - ‘The conspiracy of optimism’

The conspiracy of optimism

- MoD teams
 - emotional commitment
 - lower the cost, the easier approval
- MoD high-level
 - fewer difficult decisions about what to omit
- Industry
 - the must-win competition
 - availability of future modifications
 - requirement changes
 - The in-service phase

‘My conclusion was that there is a set of incentives operating at the centre of the Ministry of Defence that causes people both to over-programme and to systematically understate the costs of those capabilities’.

Bernard Gray

The conspiracy of optimism

- Has it peaked in the UK?
 - Nimrod
 - Astute
 - A400M
- Corporate governance impact?

- Essentially a political phenomenon
 - groups of stakeholders seeking to prevail
 - today ministerial involvement

The 'independent cost forecaster as the solution?

The independent cost forecaster

- US
- Single service procurement organisations
- CAPE within OSD
 - parametric 'will-cost' estimates should be treated warily
 - reflect previous poor management

- You use independent cost-estimate will-cost to help plan budgets over the long-run, tame unreasonable expectations at the outset, and control for the contractors' and the military services' rosy expectations of technological performance, integration and cost... You should use should-costs to help negotiate better contracts with a relatively uncompetitive defense industry, but there are risks.
- Nick Schwellenbach

The independent cost forecaster

- UK
- A defence procurement organisation
- Cost Assurance and Analysis Service within DE&S
 - Should it be in NAO?
(David Kirkpatrick)

But limit expectations: three approaches to cost forecasting

Three approaches to cost-forecasting

- Parametric techniques: assumptions, data and equations, and the people needed
- Personnel with analytical skills, allied to a thorough understanding of all the relevant technologies and project processes, and of financial management in government and industry. These people must be able to present unwelcome truths convincingly, and have the hardihood to resist intimidation. The organisation would have to assemble – from government and industry sources – an extensive and trustworthy database on the histories of past projects, with sufficient design, performance and cost information to support rigorous analysis. The group would then be able to relate the cost and timescale of past projects to key features of their design, performance and management arrangements, and to formulate parametric methods of cost forecasting for each class of defence equipment. Such methods allow credible and realistic forecasts to be derived from the data available when major investment decisions are made. (David Kirkpatrick)

Three approaches to cost-forecasting

- Project management
 - project planning
 - work breakdown structures
 - time and cost estimates
 - Perhaps some use of parametrics at the disaggregated level
 - Incorporation of risk management

Government best placed to do parametric techniques?

Industry best placed regarding project management

Three approaches to cost-forecasting

- Knowledge Management (Government Accountability Office)
 - forecasting accuracy should improve with
 - gains in knowledge, following from
 - the expenditure of money and
 - the passage of time
- Three sub-approaches here
 - the UK 15% guidance
 - The US (GAO) technology, system and engineering production approach
 - the time (five years?) to in-service concept

Implication

Project and risk
management

Knowledge
management



- Risk diminishes with time
- Early (parametric) forecasts can be refined

In addition

The growing demands on cost forecasters

- Development and procurement cost (Equipment)
- In-service support costs (Logistics)
- Other capability costs
 - Training
 - People
 - Infrastructure
 - Doctrine
 - Organisation
 - Information

Interoperability

Design to cost

Off the shelf &
foreign exchange

Implications

- MoD should moderate its confidence in its ability to forecast costs
- Cost forecasts as an element in risk management
- What can go wrong with cost forecasting
- ‘errors can arise if the cost models are obsolete and do not well represent the technologies incorporated in the project, or if the forecaster fails to make due allowance for difficulties in incorporating a new technology and in overcoming problems at the technological and managerial interfaces. A simple cost forecasting model may fail to predict the special features of the project considered’ (David Kirkpatrick)

Implications

- The cost forecasters logo?



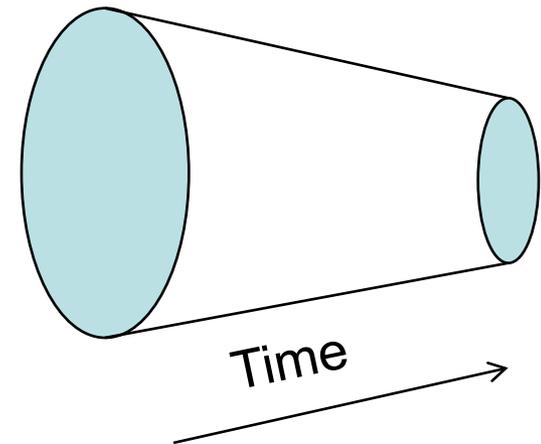
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Implications

- The cost forecasters logo?



or



Implications

- The relevance of complexity management literature
 - the need to delegate
 - the need to experiment
 - the need to accept failure
 - acceptance that meaningful prediction very difficult
- But
 - Forecasters will be valued the more they offer precision
 - Forecasters will continue to be the focus of political attention from their stakeholders