



National Audit Office

# National Audit Office work on costing and forecasting

Presentation to SCAF workshop, 5 February 2013

# Plan of talk

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## Introduction

- Introduction to the NAO
- Overview of costing and forecasting in Government
- Government framework for assessing costs

## The role of economics

- Analysing cost drivers
- Understanding wider issues
- Understanding pressures on forecasts

## Our work

- Campaign and study on costing
- Study on forecasting
- Other initiatives

# Two minute introduction to the NAO

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## Our role

- To provide independent information, assurance and advice to Parliament on use of public resources
- To help promote better financial management and value for money

## Our audit work

- Totally independent of government
- Financial: To audit of the accounts of all central government bodies
- Value for money (VFM): To produce around 60 reports each year,

## Our audiences

- The Committee of Public Accounts (PAC) – chaired by Margaret Hodge
- Other Select Committees
- The public

# Costing and Forecasting in government

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Good costing and forecasting are essential in government. By looking beyond historic data to gain an understanding of relationships and driving factors, the uncertainty involved in service delivery can be reduced.

Austerity makes accurate costing particularly urgent. The NAO has found many weaknesses in the past. We reviewed 65 reports from the 2010-12 VFM cycle and found that:

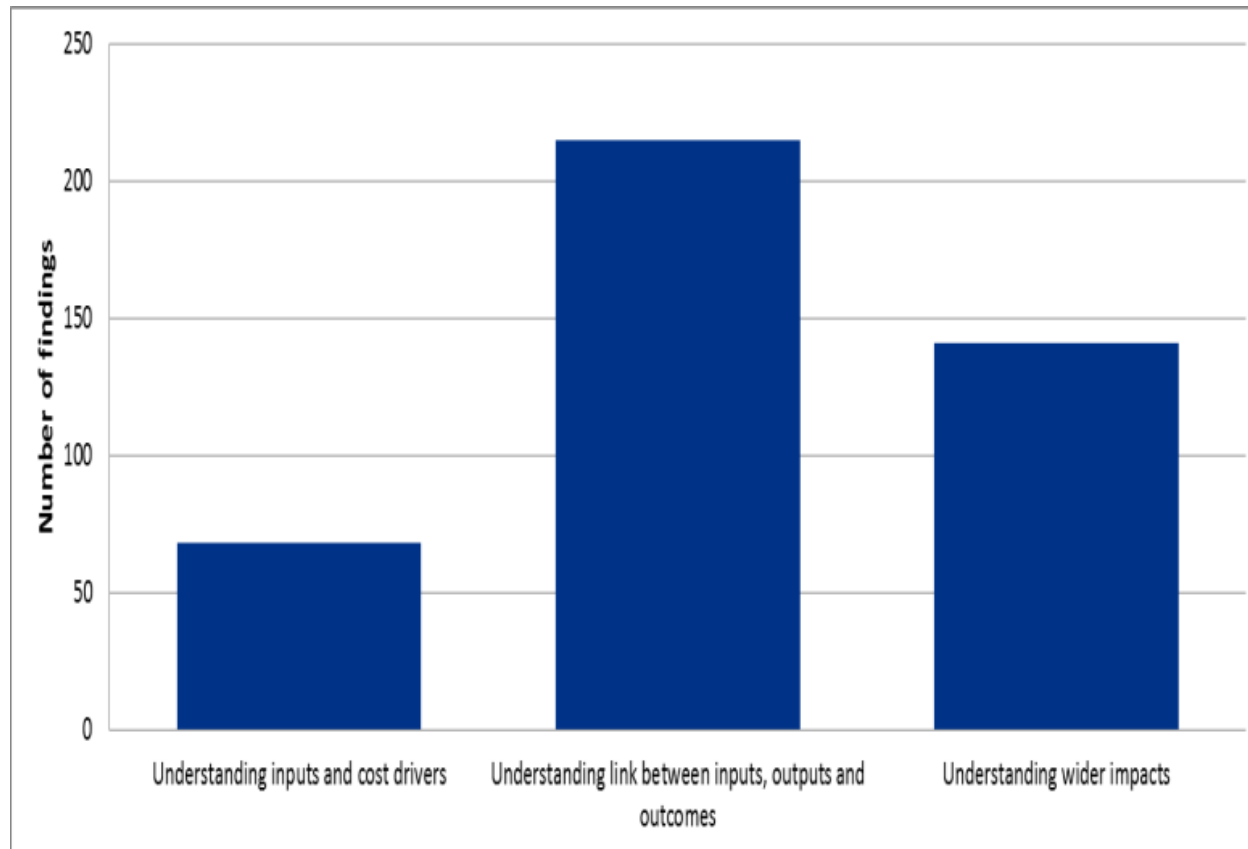
- 63 reports had at least one finding relating to a costing weakness
- 54 reports identified costing weaknesses in their value for money conclusions

Accurate forecasting is also essential to prevent situations of crisis management. The problems with the franchising of West Coast Mainline highlight the importance of accurate forecasting. The Macpherson review of model QA will investigate this further.

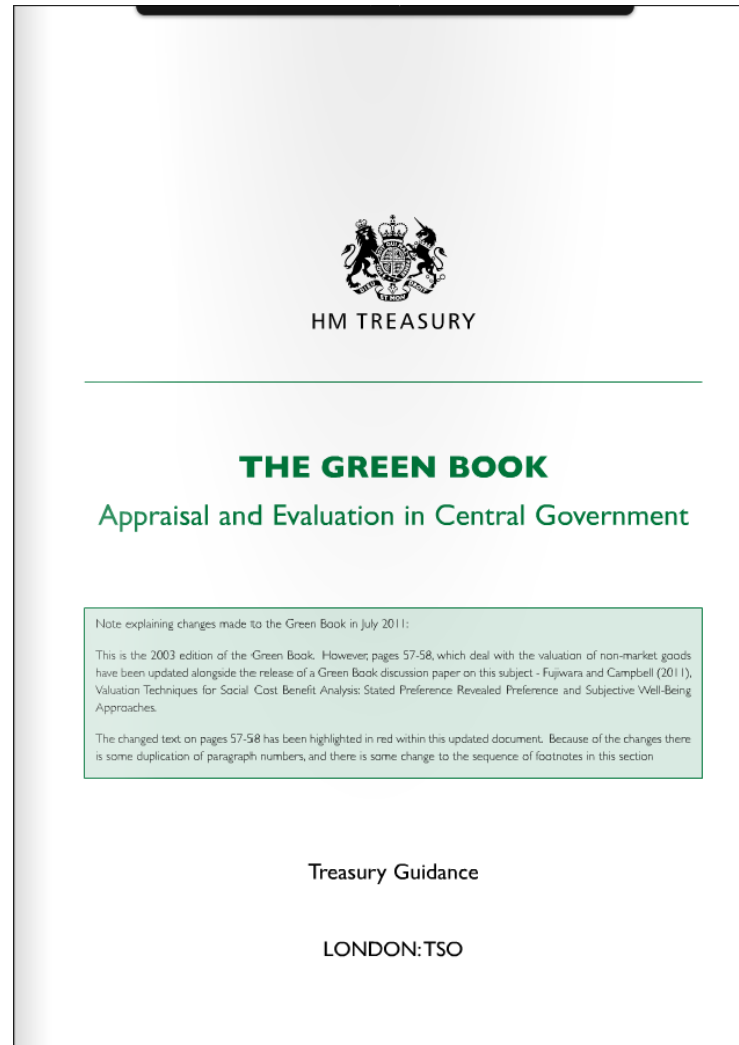
# Costing and Forecasting in government

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## 65 reports from the 2010-12 VFM cycle costing findings



# Government Framework for Assessing Costs



# Government Framework for Assessing Costs

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The Green Book sets out how the economic, financial, social and environmental assessments of a proposal should be combined.

- Emphasises the need to take account of the **wider social costs and benefits of proposals**, and the need to ensure the proper use of public resources
- Identifying **other possible approaches** which may achieve similar results;
- Attributing **monetary values** to all impacts of any proposed policy, project and programme
- Assessing the **costs and benefits** of relevant options

Separately, the Finance Transformation Programme prioritises a ‘cost-conscious culture.’

# Government Framework for Assessing Costs

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## Cost-Benefit Analysis

- Analysis which quantifies in monetary terms as many of the costs and benefits of a proposal as feasible
- This includes items which the market does not provide a satisfactory measure of economic value.

## Cost-Effectiveness Analysis

- Analysis that compares the costs of alternative ways of producing the same or similar outputs
- The relevant costs and benefits to government and society of all options should be valued, and the net benefits or costs calculated.



# Analysing Cost Drivers: Adverse Exchange Rates

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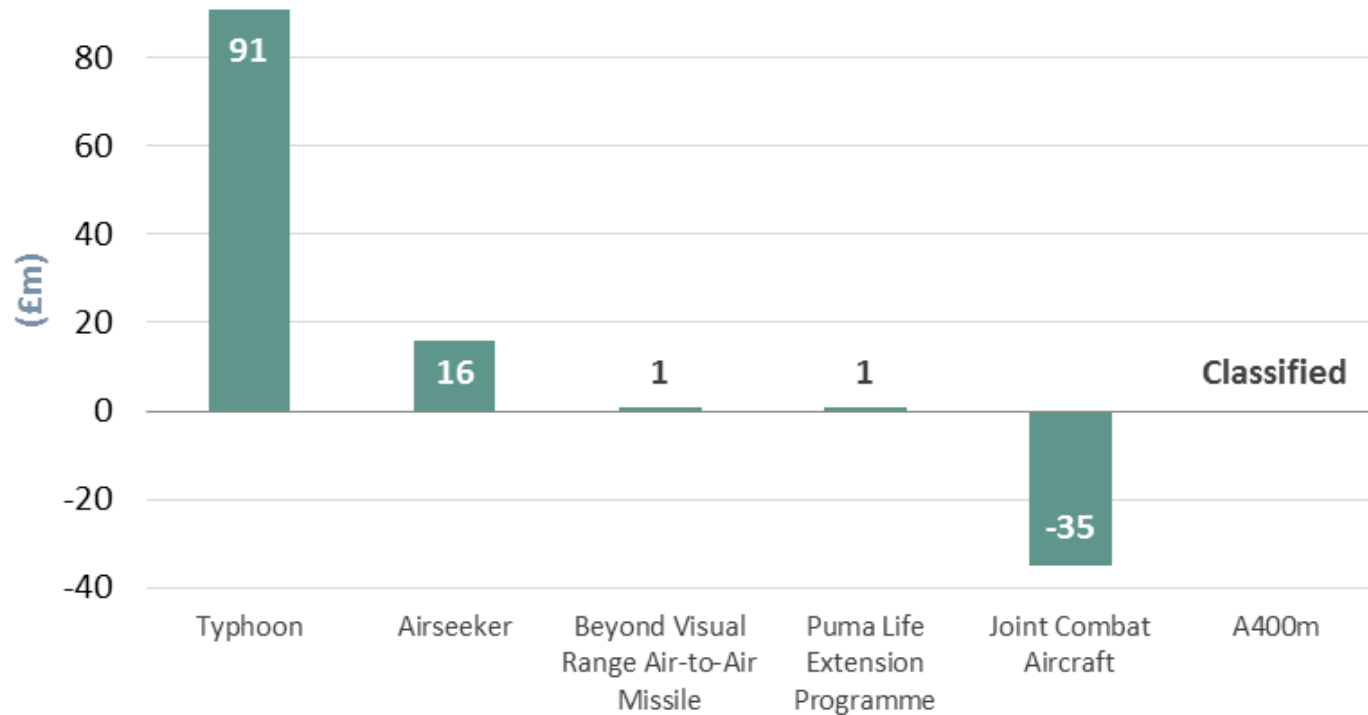
Macroeconomic factors such as adverse changes to foreign exchange rate can cause large changes in the costs of programmes.

- The NAO's Ministry of Defence Major Projects Report 2011 assessed the MOD's 15 largest projects.
- Forecast costs had risen by £466m. £176m of this was due to changes in exchange rates, the second biggest reason for cost increases after central planning decisions.

MoD is often aware of such issues – but other public bodies might not be.

# Analysing Cost Drivers: Adverse Exchange Rates

MOD Major Projects 2011 In-year Cost Variation due to Exchange Rate



# Understanding Wider Issues: Housing Benefit Reform

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A number of reforms are being introduced to housing benefits. Two key measures due to be implemented in April 2013 are:

- i) A cap on household benefits of £500 per week for families or £350 per week for single persons
- ii) Changing the uprating of Housing Benefit to the lowest of; Consumer Price Index, or the 30<sup>th</sup> percentile of local market rents (formerly based on just the 50<sup>th</sup> percentile).

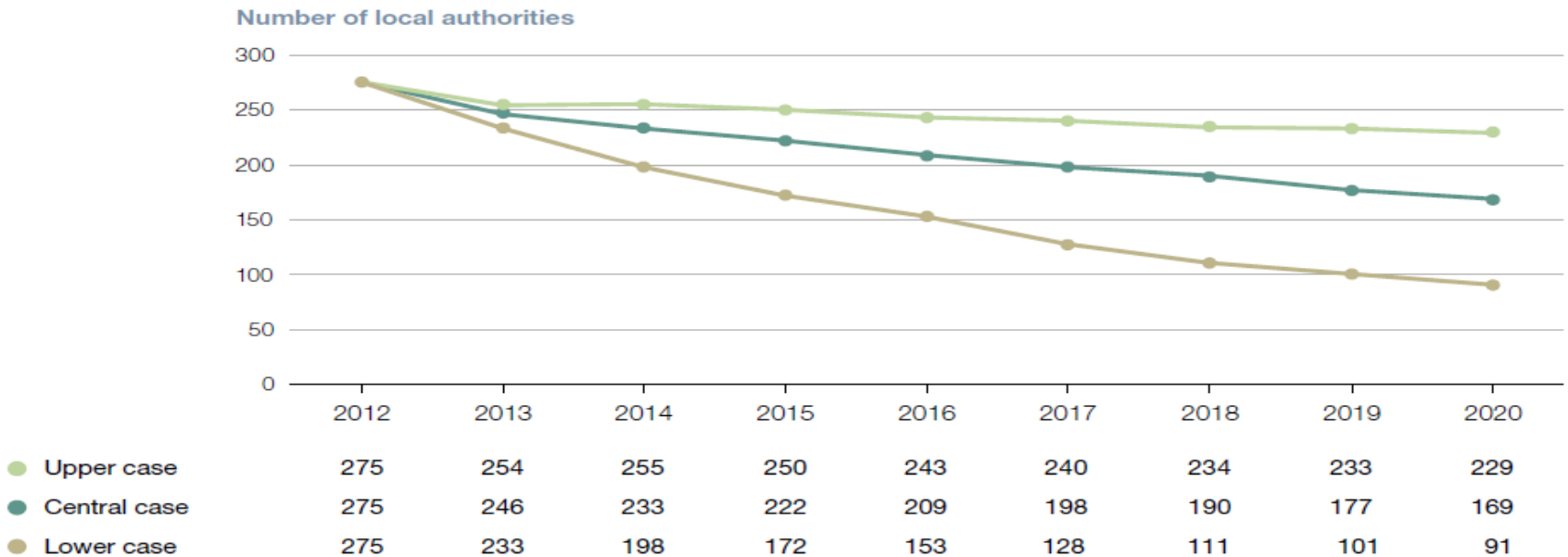
Changing the uprating system may lead to a divergence between local area rents and benefits, and a shortfall between the number of claimants and affordable housing.

# Understanding Wider Issues: Housing Benefit Reform

**Figure 13**

Illustration of the effect of uprating Local Housing Allowance by the Consumer Price Index rather than local rents

Number of local authorities where 'affordable' two bedroom housing meets needs for 50 per cent of claimants for Local Housing Allowance at the two bedroom rate



# Understanding Wider Issues: Housing Benefit Reform

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- NAO's forecast of the effect to changes in uprating, based on current trends, is that 36% of local authorities could experience a shortfall by 2017
- Potential behavioural responses are uncertain. Positive responses could be increased employment, negative responses could be increased homelessness.

# Understanding pressures on forecasts: Northern Rock

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In the run up to its eventual nationalisation Northern Rock's business model included optimistic assumptions on continually rising house prices.

- Following nationalisation Northern Rock developed a business plan forecasting two scenarios. The 'base' case (approved by HMT) assumed a 5% drop in house prices remaining unchanged for 3 years, the 'recession' case assumed a 20% reduction over three years.
- In August 2008 Northern Rock reported losses of £585 million for the six months to June 2008, £314m higher than the base case, and also worse than the 'recession' case

# Understanding pressures on forecasts: Northern Rock

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Comparison of Northern Rock's assumptions on house prices in the base case and recession scenarios with market traded house price futures

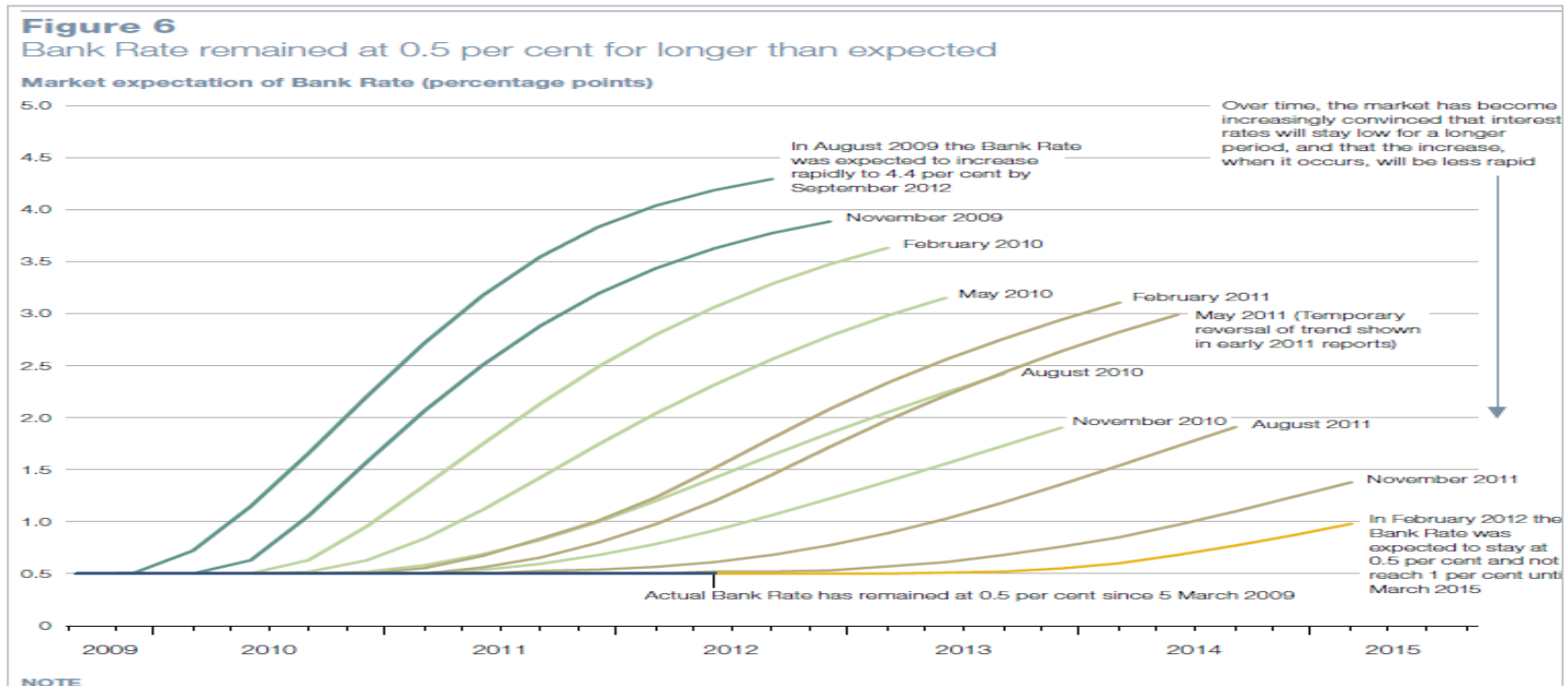
| Trading in forward contracts during: | Annual implied change (%) |        |        |        |
|--------------------------------------|---------------------------|--------|--------|--------|
|                                      | Year 1                    | Year 2 | Year 3 | Year 4 |
| September 2007                       | 0.0                       | 2.0    | 3.0    | 8.0    |
| October 2007                         | -6.5                      | -6.5   | -6.5   | -4.0   |
| November 2007                        | -8.0                      | -8.0   | -7.0   | -4.5   |
| December 2007                        | -9.0                      | -10.0  | -10.0  | -7.0   |
| January 2008                         | -9.0                      | -11.0  | -11.0  | -11.0  |
| February 2008                        | -8.0                      | -11.5  | -11.5  | -9.0   |
| March 2008                           | -8.0                      | -13.0  | -14.0  | -11.0  |
| <b>Northern Rock Business Plan:</b>  |                           |        |        |        |
| Base case                            | -5.0                      | 0.0    | 0.0    | 0.0    |
| Recession case                       | -10.7                     | -2.3   | -6.5   | 1.8    |

Source: Promontory Financial Group/DTZ Tullett Prebon HPI mid-price derivatives

**NOTE**

There are limitations on using this information for interpretative purposes: a) these markets are often illiquid; b) they are relatively new; and c) they are dominated by a small number of large banks, mostly seeking to hedge exposures to the property markets and may lead to a downward bias. A more liquid, established market may have indicated a less precipitate change in prices. The futures markets have, however, tended to give a largely accurate indication of actual price declines.

# Understanding pressures on forecasts: Northern Rock



- By December 2008, NR had recorded a loss of £1.4 billion, £463m higher than the 'recession case' in their business plan, mostly due to the falling quality of its residential mortgage book due to weakening economic conditions



# NAO initiatives: Costing Campaign and Study

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The NAO has been highlighting the consequences of poor costing in our reports for many years. We are now building upon this with a campaign to improve the use of costing across government.

As part of this, we are publishing a study on **‘The impact of poor costing in government’**.

We will examine how the government uses costing in decision-making, and the impacts the current approach has on value for money for taxpayers and service users.

We will evaluate the government’s use of costing when;

- informing resource allocation decision
- managing programmes and projects
- attempting to reduce costs while minimising impact on services
- letting and managing contracts with the private sector

# NAO initiatives: Forecasting Study

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The NAO is also working on the 'Forecasting Expenditure and Managing Risk' study.

The study will focus on the quality of departmental forecasting of programme and administrative expenditure (DEL) and how this feeds into management strategies.

The study will examine whether departments:

- understand exogenous cost drivers of spend;
- produce high quality forecasts of expenditure;
- and integrate forecasts in decisions making process to plan expenditure and manage risk.

We will make explicit comparisons between government departments and the private sector's approach.

# NAO forecasting and costing initiatives

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The NAO has undertaken several other pieces of work that address costing and forecasting. These include:

- In our report on **‘Lessons from cancelling the Intercity West Coast franchise competition’**, we found that DfT did not appreciate how the decisions and assumptions in its forecasts affect the level of capital that bidders would need to provide to protect against default, **and** that the model used to size the loan contained an error.
- We examine MoD forecasting and costing assumptions in our **‘Review of the Ministry of Defence's assumptions underpinning the affordability of its ten year Equipment Plan’**.
- We examine the Department of Energy and Climate Change’s forecasting in **‘The government’s long-term plans to deliver secure, low carbon and affordable electricity’** and **‘HM Treasury: Planning for economic infrastructure’**.

# Summary

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- Accurate costing and forecasting are vital to government's delivery of a cost-effective service to citizens, particularly in times of austerity.
- The NAO has examined many instances of problems with costing and forecasting, across all parts of the public sector.
- We are undertaking further work to highlight the importance of good costing and forecasting.