National Audit Office

Report
by the Comptroller
and Auditor General

Ministry of Defence

The Equipment Plan 2020 to 2030

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Key facts

£197.4bn

the Ministry of Defence's (the Department's) estimated cost of equipment procurement and support projects in the 2020–2030 Equipment Plan (the Plan)

£7.3bn

the Department's central estimate of the most likely funding shortfall in the 2020–2030 Equipment Plan

£1.8bn to £17.4bn

the Department's estimate of the range within which the 2020–2030 funding shortfall lies, depending on whether risks materialise

The Equipment Plan continues to be unaffordable:

4	years in a row that we have reported that the Equipment Plan has been unaffordable
£8.3 billion	funding shortfall in the first five years of the 2020–2030 Plan. In contrast, the Department estimated that forecast costs were £0.9 billion less than budget in years 6–10 of the Plan

The Department has continued to face funding pressures:

Unknown	additional cost of equipment not yet included in the Plan, with the Department possibly facing cost pressures of at least £20 billion on capabilities which it has not yet decided how to develop
£25.1 billion	costs removed from the Plan as a result of the Department's judgements on the likelihood of delays on equipment projects and its ability to make future savings
66%	proportion of the Plan's efficiency target the Department is confident of achieving
£0	departmental contingency budget for 2020-21 to offset any unexpected cost increases during the year, having used this at the start of the year to reduce the funding shortfall

The Department now has the opportunity to re-assess its equipment expenditure:

£16.5 billion	additional funding announced by the government in November 2020[1] to support investment in military capabilities over the next four years, including capabilities outside of the 2020–2030 Plan

Note

1 The Department's assessment of the affordability of the 2020–2030 Equipment Plan was produced before this announcement.

Summary

1 The Ministry of Defence (the Department) publishes its Equipment Plan report each year, setting out its intended investment in equipment and support projects over the next 10 years. It assesses whether this is affordable within its future budget. The Equipment Plan summarises the Department's investment programme over a 10-year period because of the long-term nature of large, complex defence projects. It includes funding for equipment already in use, such as the Lightning II jets, and in development, such as the Type 26 global combat ship. It also includes budgets to support and maintain its military capabilities.

2 The latest Equipment Plan covers the period 2020–2030. It shows that the Department has allocated a budget of £190 billion to equipment and support projects, 41% of its entire forecast budget. It needs to manage this expenditure effectively to ensure the Armed Forces can secure and maintain the equipment they need to meet their military objectives. The Department faces financial pressures across its wider budget and must make choices about investment priorities, which can affect the money available for equipment procurement and support projects.

3 The Department introduced its Equipment Plan in 2012 after a period of weak financial management. Its original intention was to assure Parliament that its spending plans were affordable. The Secretary of State for Defence invited the National Audit Office's Comptroller and Auditor General to examine the robustness of the Equipment Plan's underlying assumptions. Each year since then we have, in parallel, published a report examining the Department's assessment of the Equipment Plan's affordability and its response to the financial challenges it faces.

4 Under the Department's delegated model, managing projects is the responsibility of the Front-Line Commands (Navy, Army, Air and Strategic Command), the Defence Nuclear Organisation and the Strategic Programmes Directorate. These organisations are known as Top-Level Budgets (TLBs) and are required to deliver their agreed defence outcomes within delegated budgets. The delivery organisations such as Defence Equipment & Support, the Submarine Delivery Agency and Defence Digital manage and deliver the equipment and support projects on behalf of the TLBs. The Department's Head Office aggregates the information provided by the TLBs to establish the departmental position on the affordability of the Equipment Plan.

5 In July 2020, the Department wrote to the Committee of Public Accounts to explain that it would not publish a full Equipment Plan report this year. It deferred a full report until the Spending Review and Integrated Review of Security, Defence, Development and Foreign Policy (the Integrated Review) have concluded. The Integrated Review will re-assess government's ambition, priorities and approach to delivering defence policy. The 2020–2030 Equipment Plan (the Plan) therefore provides the Department's latest assessment of the affordability of military commitments flowing from the 2015 Strategic Defence and Security Review. The Department's affordability assessment is based on financial information available at the start of the 2020-21 financial year and was therefore produced before the government announced additional defence funding over the next four years.[1]

6 In preparing the Plan, the Department has undertaken the same depth of financial analysis as in previous years. Its 2020–2030 summary provides an assessment of the affordability of equipment and support projects, with supporting cost and budget data. However, the Department has cut back the contextual commentary in its report and included less project-level information. The shortened summary also reflects the Department's need to divert resources to prepare submissions for the Integrated Review and Spending Review, and to adapt its working practices due to COVID-19.

7 The Department needs effective long-term financial planning to maintain and develop future military capabilities. The aim of this report is to evaluate the Department's assessment of the affordability of equipment and support projects, and to set out how it can strengthen its approach to preparing future Equipment Plans. It examines:

- the affordability of the 2020–2030 Plan, considering the Department's approach to cost forecasting and reasonableness of its adjustments (Part One); and
- how the Department has been seeking to manage the funding shortfalls (Part Two).

8 We do not consider the value for money of the specific projects mentioned in this report. Nor do we comment on the specific decisions that the Department must take to develop an affordable Equipment Plan to meet future needs, which are policy choices. Our review examines the Department's approach to producing the Plan and how it ensures that it contains everything that it should. It focuses on the Department's approach to cost forecasting and the reasonableness of the assumptions underpinning its assessment of the Plan's affordability. We have not reviewed the Department's systems to test the accuracy of its data but have examined its quality assurance arrangements for testing the consistency and reliability of data used in the Plan.

1 The 2020 Spending Review was published in November 2020 and set out additional defence funding over the next four years.

Key findings

The affordability of the 2020–2030 Plan

9 **The Plan remains unaffordable, with the Department estimating that costs will be £7.3 billion higher than budget between 2020 and 2030.** Its central estimate is that its equipment procurement and support costs of £197.4 billion would exceed the available budget of £190.0 billion. The 2020–2030 Plan shows:

- a £13.8 billion increase in forecast costs compared with 2019–2029. This mainly reflects the inclusion of new equipment projects, cost growth on existing projects and additional commitments at the end of the 10-year period (paragraph 1.13); and
- a £9.4 billion increase in budget compared with 2019–2029, based on the Department's assumption that additional funding provided in 2020-21 will be followed by an increase in the defence budget from 2021-22 to 2029-30. However, the Department has not reduced the Plan's budget to reflect restrictions on spending commitments, as it did for 2019–2029 (paragraphs 1.6, 1.9 and 1.33).

We continue to have reservations about the Department's approach to estimating its funding shortfall, which are set out in paragraphs 12 to 15. The Department's assessment of the affordability of the 2020–2030 Plan shows the position before the government announced additional funding for military capabilities in November 2020.

10 **In our view, the Department's estimated funding shortfall is not comparable to previous years.** On paper, the Department's central estimate of the Plan's funding shortfall has increased from £2.9 billion over 2019–2029 to £7.3 billion over 2020–2030. While the Department has applied the same cost methodology as last year, there is continued uncertainty over the completeness of cost forecasts and its approach to making management adjustments (paragraph 14). It has also presented the equipment budget on a different basis to previous years, due to changes in its approach to setting the TLBs' overall budgets (paragraphs 1.9, 1.33 and 1.34).

11 **The financial pressures on equipment and support projects have built up over the past five years.** The size of the Plan has increased as the Department has added new capabilities set out in the 2015 Strategic Defence and Security Review, with the forecast cost of the Plan increasing by £31 billion since 2015. As financial pressures have increased, the Department has made larger deductions to cost forecasts, with planned efficiency savings more than doubling since the 2016 Equipment Plan to £12.3 billion. However, previous reports on the Equipment Plan have concluded that these adjustments have been over-optimistic and there has been patchy progress in achieving planned savings. The Department's focus on short-term financial management and deferring project expenditure has led to higher overall costs and larger funding shortfalls in later years (paragraphs 1.24, 1.38 and 2.4).

The Department's assessment of the Plan's affordability

12 **The level of funding for equipment projects over 2020–2030 remains uncertain.** In April 2020, as part of its 2020-21 planning round, the Department assessed that it faced a wider funding shortfall of £4.1 billion over the next five years. It also imposed spending restrictions on the TLBs to provide it with flexibility to respond to the possibility of an unfavourable Spending Review settlement. However, its budget forecast for the 2020–2030 Plan assumed that neither the shortfall nor the restrictions would affect equipment spending. The November 2020 government announcement of additional funding will help to address the shortfall in the next four years, and the Department is forecasting a surplus on its defence budget between 2025-26 and 2029-30. However, it has not yet determined how the additional funding will be allocated to develop new capabilities or announced any disinvestment decisions that will be needed to develop an affordable equipment programme. If the additional funding does not fully address the shortfalls, it is likely that further savings will need to be found on equipment projects as they represent 41% of the total defence budget, and the Department faces wider financial pressures, including on the defence estate, which mean that it will need to continually re-assess its priorities (paragraphs 1.8, 1.9 and 2.9).

13 **The Department faces substantial additional cost pressures to develop future military capabilities which are not yet reflected in the Plan.** The Plan excludes the full costs of buying equipment that TLBs will need to replace existing capabilities as they become obsolete, such as the Navy's mine-hunting capability. The Department has also started major procurement projects, including new submarines and combat aircraft, or is seeking to develop new capabilities, such as space capabilities, but has not made full provision to fund them to completion. As there is no unallocated funding in the Plan, the Department can only add new projects by disinvesting elsewhere or securing additional funding from HM Treasury. Including these new capabilities would add substantially to the cost of the Plan. Our review of TLBs' submissions indicates that this could be at least £20 billion (paragraphs 1.11, 1.20, 1.21 and Figure 2).

14 **The Department continues to make over-optimistic and inconsistent judgements when forecasting costs.** Its Cost Assurance and Analysis Service independently estimated the forecast costs of a sample of projects in the Plan and concluded that costs were again understated, this year by £3.9 billion. In the Plan, the Department reduced its overall cost forecast by £25.1 billion to reflect adjustments for expected savings. It has made improvements in some aspects of its approach, such as introducing a new process for estimating efficiency savings, but has not yet made sufficient progress in establishing a consistent and evidence-based approach to making management adjustments to its cost forecasts (paragraphs 1.12, 1.18, 1.26 and 1.30). In particular:

- in 2020-21, the Department introduced a new methodology for assessing and verifying efficiency savings, although there is still some variation in approaches across TLBs. The Department is implementing plans to achieve £8.2 billion of savings on equipment projects (66% of its target) and has assumed it will realise all of these savings. It has also included £3.7 billion of savings that it has not yet implemented plans to deliver and needs to find further savings of £430 million to achieve its target. The TLBs face a significant challenge finding these savings, which have been deducted from forecast costs, and failure to do so would make the Plan even more unaffordable. The Defence Nuclear Organisation and Air also included £2.6 billion of other cost reductions in the Plan, but we have not seen plans to deliver these savings (paragraphs 1.23 to 1.27 and 1.32);

- the Department reduced cost forecasts by £10.4 billion to reflect judgements that it will not deliver projects as quickly as originally planned. However, it has once again removed these costs from the Plan rather than reprofiling them over a 10-year period. We found that the TLBs continued to make these adjustments on an inconsistent basis and had limited evidence to support their judgements. There was also a risk of double counting between deductions made by TLBs and delivery organisations (paragraphs 1.28 to 1.31); and

- the Department's approach to analysing cost risk and uncertainty means that, in our view, it is likely to have understated the level of risk in the Plan's central forecast. It should explore whether its approach to assessing risk remains appropriate for new, complex projects (paragraphs 1.15 to 1.19).

15 The Department has not explored the full range of uncertainties that affect its affordability assessment. It estimated that the funding shortfalls could be as large as £17.4 billion should the risks it has considered materialise. It tests parts of its forecast, including the potential range of some efficiency savings, foreign exchange movements and portfolio delays. However, it does not consider potential changes to its budget and does not fully test the range of potential project costs. Considering the uncertainty in these forecasts would improve how it estimates the range within which the funding shortfall lies (paragraphs 1.36, 1.37 and Figure 7).

Impact on TLBs

16 The affordability pressures have continued to grow in the short term and are increasingly restricting the Department's ability to develop military capabilities. The Department's affordability assessment shows a funding shortfall of £8.3 billion before 2025-26 on its equipment and support projects.[2] It also shows that, over the same period, TLBs need to achieve £4.6 billion of expected efficiency savings and identify or secure a further £3.8 billion of savings. The Department also has no contingency for 2020-21, restricting TLBs' ability to respond to any unexpected demands or cost increases, such as pressures caused by unfavourable changes to foreign exchange rates. The TLBs have responded to the ongoing funding pressures by again reviewing their equipment programmes to reduce expenditure in 2020-21, stopping projects or deferring expenditure into later years. They have highlighted that this short-term approach to managing costs is increasingly restricting their ability to develop the capabilities they need (paragraphs 1.11, 1.35, 1.40, 2.3, 2.4 and 2.6).

17 The TLBs face differing challenges in managing their equipment programmes. All of the TLBs had funding shortfalls in their 10-year equipment programmes, with the Navy reporting the largest of £4.3 billion (12% of overall costs). The ability of individual TLBs to address these shortfalls depends on the nature, maturity and complexity of the military capabilities that they are developing. For example, Air Command's long-term contracts mean that 62% (£16.2 billion) of its forecast equipment support costs are already committed over the next 10 years, limiting its flexibility to adjust its programme. TLBs also carry different levels of exposure to foreign exchange risks. Air Command's portfolio includes £16.9 billion (41%) of costs in foreign currencies, compared with 4% (£1.4 billion) in Strategic Command (paragraphs 1.39, 1.40 and Figure 8).

2 The estimated shortfall in the first five years of the Plan is higher than the 10-year shortfall as the Department is forecasting that its equipment budget is £0.9 billion greater than forecast costs in years 6–10.

The Department's approach to producing the Plan

18 **The Department has made some improvements in its approach to producing the Plan but weaknesses in its quality assurance remain.** Over recent years, the Department has made improvements to its processes for producing the Plan and enhanced the transparency of its report. More recently, it has introduced a new streamlined process for reviewing project cost forecasts and a standardised framework for verifying potential efficiency savings. However, Head Office does not have the data, resources or remit to undertake the level of quality assurance we would expect and relies on the TLBs to test their own information. Neither could demonstrate that their quality assurance work had ensured that the Plan was based on consistent and fully documented data and assumptions. In addition, the Department found errors in its 2017–2027, 2018–2028 and 2019–2029 reports after publication (paragraphs 1.26, 2.12 to 2.14 and 2.16).

The Department's approach to managing funding shortfalls

19 **Faced with an unaffordable defence programme, the Department has again focused on managing short-term financial pressures.** In 2020-21, the Department has again focused on living within its annual budget. Head Office required the TLBs to make £1 billion of savings, released all departmental contingency funding and retained the controls which reduce TLBs' ability to enter into contracts. The Department has also assumed that HM Treasury will fund cost increases from pensions changes, foreign exchange movements and the Dreadnought submarine programme. Despite these measures, the Department started 2020-21 with a £250 million shortfall, which means that the TLBs may need to conduct another in-year exercise to find further savings to stay within their annual budgetary limits. We have previously highlighted that this short-term focus on living within annual budgets has led to higher overall costs, creating increasing risks to value for money from the Department's management of the Equipment Plan (paragraphs 2.2 to 2.6).

20 The increases to the Department's budget, announced in November 2020, should help it establish a more affordable equipment programme. We have previously reported on the missed opportunities to determine priorities on future military capabilities and develop an affordable equipment programme, such as the 2018 Modernising Defence Programme review. The Department expected the Integrated Review to reset government's defence policy and ambitions, including the military capabilities that it will need in the future. Although completion of the Integrated Review has been delayed to 2021, in November 2020 the government announced it would provide an additional £16.5 billion of defence funding over the next four years.[3] This funding is intended to allow the Department to modernise and invest in new technologies, including its cyber and space capabilities. The Department now needs to ensure that long-term decisions on equipment expenditure are based on realistic assessments of future project costs and the deliverability of efficiency savings. Otherwise, it risks a continuation of the financial problems faced in recent years (paragraphs 2.6 to 2.9 and 2.12).

Conclusion

21 For the fourth successive year, the Equipment Plan remains unaffordable. However, the Department has still not established a reliable basis to assess the affordability of equipment projects, and its estimate of the funding shortfall in the 2020–2030 Plan is likely to understate the growing financial pressures that it faces. The Plan does not include the full costs of the capabilities that the Department is developing, it continues to make over-optimistic or inconsistent adjustments to reduce cost forecasts, and is likely to have underestimated the risks across long-term equipment projects. In addition, the Department has not resolved weaknesses in its quality assurance of the Plan's affordability assessment. While the Department has made some improvements to its approach and the presentation of the Plan over the years, it has not fully addressed the inconsistencies which undermine the reliability and comparability of its assessment.

22 The Department faces the fundamental problem that its ambition has far exceeded available resources. As a result, its short-term approach to financial management has led to increasing cost pressures, which have restricted TLBs from developing military capabilities in a way that will deliver value for money. The growing financial pressures have also created perverse incentives to include unrealistic savings, and to not invest in new equipment to address capability risks. The recent government announcement of additional defence funding, together with the forthcoming Integrated Review, provide opportunities for the Department to set out its priorities and develop a more balanced investment programme. The Department now needs to break the cycle of short-termism that has characterised its management of equipment expenditure and apply sound financial management principles to its assessment and management of the Equipment Plan.

3 The £16.5 billion funding is additional to the Department's planning assumption of 0.5% real growth from its 2020-21 budget, based on the economic determinants in the Office for Budget Responsibility's July 2020 *Fiscal sustainability report*.

Recommendations

23 The Department will now need to make tough decisions on its future equipment programme, including how to allocate the additional funding announced in November 2020. It will also have to identify and achieve savings in order to balance its 10-year budget and ensure the intended funding is available to develop military capabilities. Our recommendations are intended to help the Department develop a reliable assessment of affordability and use the Plan to manage its long-term investment in the development of military capabilities. The recommendations are designed to help strengthen its production and management of future Equipment Plans:

a **The Department needs to develop a comprehensive and realistic assessment of the affordability of its 10-year equipment and support programme.** It should improve the consistency of judgements that underpin its budget and assessments of future costs. In doing so, it should:

- ensure all adjustments to cost forecasts are fully evidenced, transparent and supported by a clear rationale. Forecast savings and future efficiency initiatives should not be deducted from budgets until there is a high-quality audit trail to provide confidence in their deliverability;
- include funding provision across the later years of the Plan to make it more adaptable to future needs to develop new military capabilities. This would allow more flexibility to adapt the equipment programme to changes in the strategic environment and make it less vulnerable to repeated short-notice exercises to reduce investment in existing projects;
- re-assess its approach to assessing risk and how this affects future costs. It should consider how to improve the quality of risk analysis, including whether strategic risks are fully assessed in the Plan's affordability analysis; and
- explore a more complete range of outcomes in its affordability analysis by improving its understanding of uncertainty in project costs, reflecting the potential additional cost pressure of new capabilities, undertaking more detailed testing of project cost forecasts and considering the level of certainty in its budget over the 10-year period.

b **The Head Office team should review and define its role in producing the Equipment Plan, and ensure it is capable of delivering its remit.** In doing so, it should determine its role and responsibilities, in terms of providing a reliable departmental statement on the affordability challenge and engaging with the TLBs to challenge the basis of their cost forecasts and manage funding challenges. At the very least, the central finance team should:

- provide robust quality assurance to ensure the Plan is based on reliable data, including consistent management adjustments and a sound evidential basis. It should provide meaningful challenge to the TLBs on the robustness and consistency of their costed plans and adjustments to forecast costs;
- better understand past performance, undertaking detailed reviews of outturn against forecasts to improve the rigour of cost forecasting. For example, conducting analysis on its efficiencies programme would give a more realistic view on what is achievable and the future cost of the Plan; and
- continue to improve the integrity of the cost forecasts and establish consistency between TLBs' plans. Building on its recent reviews of realism and risk, it should use the lessons it has learned to ensure all parts of the Department apply best practice.

c **The Department needs to focus on strengthening its analytical capacity.** Continuing to develop staff with financial qualifications and improve its use of data would help it more effectively produce and analyse the Equipment Plan. It should identify and exploit opportunities for more effective data analysis and sharing. It should make its data – such as records of reasons for project cost changes, detailed outturn data and breakdowns of forecast efficiencies – more accessible to finance and planning staff throughout the Department, reducing the need for Head Office to commission bespoke reports.