



Home Office's response submission to the CMA's Profitability methodology working paper

Introduction

1. The Competition and Markets Authority (**CMA**) has invited representations from interested parties on its proposed methodology to financial and profitability analysis in its market investigation into the secure private mobile radio communications network for organisations involved in public safety in Great Britain (the Airwave network).¹ This submission sets out Home Office's views on the CMA's working paper.
2. The Home Office welcomes the CMA's approach to the profitability analysis and the identified next steps. We also appreciate the CMA's intention to look into the details of Motorola's data to ensure accurate interpretation. Our main reflections on the CMA's methodology are as follows:
 - a. we consider it key to assess the profitability of the extension period (from 2020) to understand the extent to which Motorola has had a position of unilateral market power since its acquisition of Airwave Solutions in 2016;
 - b. we agree with the CMA's intention to use the net book value (**NBV**), subject to any adjustments required to appropriately reflect the useful asset lives that may deviate from accounting policy; and
 - c. we draw the CMA's attention to the importance of intercompany transactions and the allocation of group costs and assets – those need to be evidenced as being efficient and priced at market rates. The standalone approach that ignores the synergies (i.e. cost efficiencies and/or additional revenues) that Airwave may have from being part of the group is not appropriate – the synergies are an efficiency that can exist in a competitive market.
3. The rest of this response follows the CMA's working paper and specific questions the CMA invites views on.

Confidentiality

4. The Home Office requests the CMA to please treat this submission as confidential and to not disclose the submission, or any information contained within the submission, to any third-party without the Home Office's consent.

¹ CMA (2021), '[Land mobile radio network services. Profitability methodology approach](#)', 13 December.

The role of profitability analysis

5. The CMA plans to use its profitability analysis to help determine whether there are any adverse effects on competition (**AECs**) and the nature and degree of any detriment effect on customers.
6. The Home Office supports the CMA's objectives and proposed use of profitability analysis. The Home Office suggests that the CMA also draw on insights from profitability and financial analysis to inform its design of remedies, such as the type of remedies that may be required and, in particular and if relevant, the structure of an appropriate price control. Should it be the case that Airwave has already earned a fair return on its investment in the network, this may have implications for the revenues it can demand from the Home Office going forward.

Scope of the analysis – business activities

7. We consider that it is appropriate to assess the profitability of all Airwave activities that are related to the land mobile radio (**LMR**) services provided to public authorities and associated organisations in Great Britain.
8. We are aware that Motorola has argued that some (smaller) parts of Airwave operations are unrelated to the services provided to the UK government (for example, the software line of business, including Pronto and Mobile Assets Communications System (**MACS**)).² If this is the case, we agree that, from an economics perspective, they should be removed from the analysis. However, in practice, this may be difficult to do robustly. If any revenue lines are removed from the analysis, all the corresponding costs must also be removed, and identifying all the corresponding costs may not be straightforward as this would involve properly adjusting for any common costs that Airwave incurs for the services related and unrelated to those provided to the UK government. The CMA should consider whether it would be more informative to strip out the unrelated parts or not, and in either case ensure consistency of the treatment of revenues, costs and assets.
9. We further discuss intercompany transactions and group costs allocation in the corresponding section below.

Scope of the analysis – time period under consideration

10. The CMA is proposing to assess the full PFI period, which is deemed to cover the years from 2000 to 2026, as well as splitting the analysis between the two main periods – from 2000 to 2019 (the 'PFI period') and from 2020 to 2026 (the 'extension period'). We discuss various options in turn below.

The extension period

11. To understand the extent to which Motorola has had a position of unilateral market power since its acquisition of Airwave Solutions in 2016, we consider an assessment of the profitability of the extension period key. This is because, the

² Motorola Solutions (2021), 'IRR model', 10 September.

contract terms of this period reflect the outcome of negotiations since Motorola completed the acquisition of Airwave and therefore inform as to whether, from this date, it held a position of unilateral market power. In other words, if Airwave is earning excess profits over this extension period, it can reflect its market power in contract negotiations for the extension.

12. It would be most appropriate to study the profitability of this extension period by using the forecast revenues and costs that Airwave expected to make when negotiating the contract, rather than the actual profits, even for the years for which historical data is available. However, we agree with the CMA's approach to also refer to the actual data where possible given the asymmetry of information present and the overall lack of transparency behind Airwave's financials. In other words, the actual data could be used as a proxy for the expectations given that the true expectations may not be known.
13. We also agree with the CMA that it would be prudent to consider profitability over an extended timeframe as a sensitivity, to assess what Airwave's level of profitability would be if the shutdown of Airwave is subject to further delays, as this is a scenario that would be reasonable for the CMA to test.
14. Finally, the cost of capital to benchmark the expected profitability against, should reflect the market expectations at the time of negotiations of extensions and the risks associated with the extension of the contract rather than the original one, where the latter is likely to be lower.

The full and the original PFI periods

15. We agree that assessing the profitability of the original PFI period from 2000 to 2019 and the full period from 2000 to 2026 is informative. It provides useful context to Airwave's financials at the time of contract renegotiation. In addition, the analysis of historical data addresses a standard concern associated with forward-looking analysis – the uncertainty around the future and asymmetry of information, and in this sense, could also be useful.
16. Practically, when assessing the full and the original PFI periods, the assessment should ensure no double-counting of costs – e.g. the costs of decommissioning should be accounted for only once and there should be consistency between the closing asset value for one period and the opening asset value for the next period. In addition, when dividing the profitability assessment between two periods, the obligation to decommission the assets that existed in the earlier period needs to be reflected. The profitability of the original PFI period from 2000 to 2019 would be overstated if there is no adjustment for the cost of decommissioning obligations that accrued within this period. Similarly, the extension period profitability would be underestimated if the full charge of the decommissioning costs is solely allocated to this period, even though the cash outflow occurs in 2026. This can be accounted for by increasing the opening asset value in 2019 with the NPV of the proportion of decommissioning costs that will be accrued during the extension period, and then amortising these costs over the extension period. A provision within Airwave's statutory accounts for these costs already exists as they have included a £39m undiscounted provision

relating to property asset retirement obligations in their accounts.³ This provision should be amortised over the entire period of analysis since 2000.

17. However, we do not consider that analysis of the full PFI and the original PFI periods on their own can determine whether there is or is not an AEC.

Other periods

18. As a supplementary piece of analysis, we also propose that the CMA analyses the expected profitability of the acquisition of Airwave by Motorola in 2016. Understanding the return that Motorola expected to make in 2016 would provide insights into their assumptions at the time on how long the contract would be extended. In other words, this would allow the CMA to assess whether Motorola expected to achieve an IRR higher than the benchmark WACC by the end of the original PFI contract period, or whether this depended on the terms under which it would agree extensions to Airwave. This can provide indications to the CMA of Motorola's ability to exploit its position of monopoly supplier of a critical infrastructure to extract supra-competitive rents during the extension periods. For this, the CMA would need to look at the purchase price paid by Motorola in 2016 and estimates of financial forecasts for the years from 2016 onwards, and partition the analysis between the period of 2016–19, 2020–26, and such additional periods the CMA considers necessary.

Proposed approach to profitability analysis

19. We welcome the CMA's proposed overarching approach of comparing the IRR with the cost of capital.
20. We also welcome the CMA's intention to critically review Airwave's historical and forecast data. This could include, for example, the following:
 - a. stress-testing the forecasts that are based on a single year of data, and using the most updated budgets used internally by Airwave;
 - b. being mindful of the tax super-deduction on capital allowances;⁴
 - c. assessing the efficiency of material costs that cannot be benchmarked (e.g. decommissioning costs have no historical comparison available and will require careful consideration);
 - d. following the contractual terms to model Airwave's revenue—e.g. that the 5% discount achieved as a result of the 2018 negotiation applied only to the core fees and was not applied to the Menu Catalogue; and
 - e. looking into irregularities, such as sudden increases in costs or balances.

³ See Airwave (2021), 'Annual Report and Financial Statement – Year ended 31 December 2020', p. 32.

⁴ See, for example, HM Treasury (2021), '[Guidance—Super-deduction](#)', 3 March, last accessed 10 January 2021.

21. To answer the CMA's question in para. 39 of the working paper about the exact timing of cash flows within the year, we see no reason to deviate from using the annual data.
22. Below, we discuss the approaches to asset valuation and the allocation of common costs and assets in more detail.

Asset valuation

23. The CMA has identified three major asset groups held on Airwave's balance sheet—intangible assets, tangible assets, and current assets. We note that if any revenue and cost lines are removed from Airwave's operations for the purpose of the profitability assessment, then the commensurate assets should also be removed. Thus, the assets considered within these three groups should solely be the assets used to provide the LMR services to public authorities and associated entities in Great Britain.
24. In respect of **intangible assets**, the CMA should follow the principles for inclusion of the intangible assets set out in its Guidelines.⁵ For example, removing goodwill from the asset base would be in line with CMA Guidelines, as goodwill fails to meet the three criteria set for inclusion of the intangible assets (namely, it is not an identifiable asset). Furthermore, the inclusion of goodwill within a profitability analysis is associated with the circularity problem and can lead to incorrect conclusions – if a proportion of goodwill is a reflection of higher expected profits, then including goodwill in the asset base will lead to profitability being underestimated.
25. With regards to **tangible assets**, the CMA's proposal to use the NBV is appropriate, subject to adjustments required to appropriately reflect useful asset lives that may deviate from the accounting depreciation policy.
26. In particular we agree that, in this context, it is more appropriate to look at the cost of the asset, rather than the recoverable amount. The recoverable amount is usually determined by either calculating the net realisable value (**NRV**) of the asset, that is, the amount that can be earned by selling the asset net of expenses, or alternatively by calculating the value in use, which is the net present value of future cashflows. In both cases, circularity would be present as the recoverable amount of the asset would be wholly dependent on the terms agreed with the Home Office.
27. The modern equivalent asset (**MEA**) value (to estimate the replacement cost) is typically relevant for an assessment of market power as it proxies what an entrant would need to invest to compete with the incumbent, i.e. when efficiency gains from replacing the existing infrastructure before the end of its useful life are outweighed by the additional investment costs that would have to be passed to customers. However, in this case, given that Airwave is towards the end of its lifecycle, there is no commercial prospect of a new entrant constructing a

⁵ See Competition Commission (2013), 'Guidelines for market investigations: Their role, procedures, assessment and remedies', para. 14.

competing infrastructure.⁶ This is supported by the fact that in 2018 the contract negotiations were solely bilateral between the Home Office and Motorola, and no potential entrant was considered. Therefore, the MEA value is not appropriate for the current context.

28. As a result, we view the historical cost as a more appropriate measure of valuing the assets in this case. Furthermore, even if the CMA decides to use the MEA value, we note that in its report for OFT, Oxera mentioned that historical costs can be similar to the MEA value, with statutory accounts being a useful data source given that it is an audited and objective source of information.⁷
29. An adjustment that the CMA could consider is the restatement of the accumulated depreciation if accounting depreciation does not reflect the economic asset life. For example, if the economic asset life of an asset goes beyond the end of Airwave network's operations, there would be a positive residual value.
30. Finally, if Airwave identifies any operating costs that need to be capitalised to the asset base to reflect an asset that is not present on Airwave's balance sheet, the CMA should ensure the operating costs are consistently removed from the analysis.
31. With respect to **current assets** (which are subsequently accounted for net of current liabilities), our understanding of Airwave's business is that it does not require high balances of working capital. In particular, that applies to cash balances—we consider it appropriate to adjust Airwave's cash balances wherever they appear to be excessive or volatile.

Common costs and assets allocation

32. The Home Office agrees that some intercompany transactions would be appropriate to account for if Airwave relies on services not reflected in its own accounts. That can also include common costs incurred and assets owned at the group level (such as the cost of HR or finance functions). In relation to this, we highlight the following:
 - a. as the CMA suggests, it is important that the levels of those payments and adjustments are reasonably justified and evidenced as being efficient and priced at market rates, especially if the amounts are significant. For example, we note that the cost line 'Administrative expenses' in Airwave's

⁶ The new ESN cannot be considered as the MEA to Airwave due to the fact that it is not a like-for-like replacement as it has a number of additional functionalities. Any assessment of deriving a replacement cost for the Airwave network using ESN costs would require substantial downward adjustments to account for the relative obsolescence of the Airwave network.

⁷ Oxera (2003), 'Assessing profitability in competition policy analysis', Economic Discussion Paper 6, July, para 5.10.

statutory accounts increased from £55m in 2018 to £78.5m in 2019,^{8,9} with the [redacted] of the increase in this cost [redacted] explained by [redacted]¹⁰

- b. while it is reasonable to allocate a portion of a specific cost or asset, we disagree with taking a standalone approach that ignores the synergies (i.e. cost efficiencies and/or additional revenues) that Airwave may have from being part of the group – that is an efficiency that can exist in a competitive market; and
- c. the CMA may also find it informative to investigate the impact of any reallocations on the profitability of other business segments within the MSI group.

Approach to estimating the WACC

33. Our comments on the overall approach of the CMA to WACC are as follows:

- a. the CMA mentions that it would estimate WACC based on the CAPM, and the actual gearing and cost of debt. When considering the actual levels of gearing and cost of debt, the CMA should consider whether these financing decisions were efficient or not;
- b. we agree with the CMA that its PR19 redetermination is a sensible starting point for the bottom-up CAPM calculations that it would undertake;
- c. We have reservations about the CMA using other PFIs as benchmarks for the WACC given the concerns that have frequently been raised about whether such projects represent value for money. For example, the National Audit Office highlights that,

‘Major contractors and investors can improve their returns through cost efficiencies not shared with the public sector, or, high margins on the changes in asset usage which are likely to occur over a long contract’,¹¹ and that ‘The public sector [...] risks failing to secure value for money during the expiry negotiations with the private sector’.¹²

If the CMA uses other PFIs as benchmarks for WACC or its parameters, it should adjust for differences in risks and timings between the benchmarks and Airwave’s PFI. As an example of the risks, there can be substantial differences with the expected demand risk of the project. In terms of the

⁸ See Airwave Solutions Limited (2020), ‘Annual Report and Financial Statements – Year ended 31 December 2019’, p. 12.

⁹ This higher administrative expense was sustained in 2020. See Airwave Solutions Limited (2021), ‘Annual Report and Financial Statements – Year ended 31 December 2020’, p. 15.

¹⁰ [redacted]

¹¹ National Audit Office (2011), [‘Lessons from PFI and other projects’](#), para. 14.

¹² National Audit Office (2020), [‘Managing PFI assets and services as contracts end’](#), 5 June.

timing, the risk-free rate changes over time, and therefore WACC estimates cannot be compared unless adjusted for those differences; and

- d. as discussed above in relation to other PFIs, when comparing WACC for the original PFI period with that for the extension period, the CMA should account not only for changes in the market data but also for changes in risks, as the extension is arguably much less risky than the original contract.

Assessment of potential inefficiencies

34. In relation to potential inefficiencies, we draw the CMA's attention to the comparison of Airwave's CAPEX levels it expected in 2018 with those realised as per the statutory accounts over the period 2018–20. We observe that the actuals are a third lower than the forecasts. While one could argue that Airwave simply achieved greater efficiencies than expected, given the short time period and magnitude of the outperformance, this could hint at CAPEX forecasts not reflecting the most efficient costs. The CMA should assess the level of costs that Airwave forecasts for the forward-looking profitability.
35. We also draw the CMA's attention to the substantial increase in the Airwave's headcount, which increased from 482 employees in 2018 to 572 employees in 2019.¹³ [X]. Any irregularities found, such as this increase in headcount, should be adequately justified.

Additional analysis—price or margin benchmarking

36. It is notable that Airwave contributes approximately 8% of the revenues of MSI but 19% of the profit, indicating that profitability of Airwave is high relative to the MSI group.¹⁴ Motorola operates several TETRA networks around the world, which in principle should enable benchmarking of Airwave prices and profitability against Motorola's services in other countries. We would expect that Motorola would be able to provide the CMA with the necessary information to undertake such benchmarking.¹⁵
37. In addition to benchmarking Airwave's prices and/or profits against similar products or services in other countries, the CMA could consider comparing the change of the terms from the original PFI agreement to the extension with examples of changes in terms in other markets – a hypothetical finding that in a

¹³ See Airwave Solutions Limited (2019), 'Annual Report and Financial Statements – Year ended 31 December 2018', p. 21; Airwave Solutions Limited (2021), 'Annual Report and Financial Statements – Year ended 31 December 2020', p. 26.

¹⁴ This is based on the turnover and operating profit specified in the 2020 Airwave statutory accounts and the net sales and operating earnings specified in the 2020 Motorola Solution statutory accounts. No adjustments were made for different accounting practices. The exchange rate as at 31 December was used to convert Airwave's figures to dollars. See Airwave Solutions Limited (2021), 'Annual Report and Financial Statements – Year ended 31 December 2020', p. 15 and Motorola Solutions (2021), '2020 Annual Report to Shareholders', p. 28.

¹⁵ The Home Office observes that previous attempts at benchmarking did not result in agreement, as Motorola argued available comparisons were inappropriate. The CMA should consider whether Motorola's assessment is robust.

different country, a discount of 30% (compared to 5% in GB) was granted by the incumbent for a contract extension would be insightful and worth exploring in detail. A finding of the change in terms in a situation where a network was taken over by another provider would be even more insightful, as it would reflect more competitive circumstances.

Residual value

38. The CMA is looking to understand how the Airwave's assets may be used after the transition to ESN.
39. Some of the assets will be of use for ESN, for example, the Home Office is planning to take over a small number of mast sites from Airwave and use those for the ESN equipment. In addition, it is the Home Office's understanding that Motorola intends to use its sites after the Airwave network is shut down, as it requested continued access to those sites that the Home Office is planning to take over. For example, Motorola Solutions' CEO Greg Brown commented that he expects Airwave and ESN will complement each other.¹⁶
40. Although the Home Office is not aware of Motorola's specific plans, we assume it could use the assets to offer services to private or other government organisations or rent the mast space to telecom operators. This suggests that there will be a positive residual value of the Airwave fixed assets once the ESN transition is complete.
41. Extending asset lives beyond the ESN transition date would allow the CMA to account for that.
42. In relation to the probability of extension of the Airwave contract beyond 2026, although quantifying it would be challenging, extension cannot be ruled out and it would be appropriate to assume that the assets continue to be suitable for operations after 2026. This could be modelled by extending the cash flow forecasts beyond 2026.
43. Finally, we ask the CMA to ensure the costs of decommissioning, the corresponding provisions and their unwinding are treated consistently in the analysis and that there is no double-counting.

Conclusion

44. As reflected in this response, the Home Office welcomes the CMA's intended approach to the profitability analysis subject to the comments and suggestions outlined above. In addition, the Home Office encourages the CMA to look into the details of any financial information provided by Motorola and assess whether the information is reliable.

11 January 2022

¹⁶ Jackson, D. (2021), '[Motorola Solutions CEO anticipates extension of Airwave contract in UK by end of year](#)', 26 May.