KPMG

Review of technical aspects of the MSI calculation

Final Report

March 2025

About this Report

This Report has been prepared on the basis set out in our Works Order addressed to the Regulators and Funders Group (RFG) (the "Client") dated 19 May 2023 and amendment dated 26 October 2023 (the "Agreement") and should be read in conjunction with the Agreement.

Nothing in this report constitutes a valuation or legal advice. We have not verified the reliability or accuracy of any information obtained in the course of our work, other than in the limited circumstances set out in the Agreement.

This Report is for the benefit of only the Client and the other parties that we have agreed in writing to treat as parties to the Agreement (together the "Beneficiaries").

This Report has not been designed to be of benefit to anyone except the Beneficiaries. In preparing this Report we have not taken into account the interests, needs or circumstances of anyone apart from the Beneficiaries, even though we may have been aware that others might read this Report. We have prepared this Report for the benefit of the Beneficiaries alone.

This Report is not suitable to be relied on by any party wishing to acquire rights against KPMG LLP (other than the Beneficiaries) for any purpose or in any context. Any party other than the Beneficiaries that obtains access to this Report or a copy (under the Freedom of Information Act 2000, the Freedom of Information (Scotland) Act 2002, through a Beneficiary's Publication Scheme or otherwise) and chooses to rely on this Report (or any part of it) does so at its own risk. To the fullest extent permitted by law, KPMG LLP does not assume any responsibility and will not accept any liability in respect of this Report to any party other than the Beneficiaries.

In particular, and without limiting the general statement above, since we have prepared this Report for the benefit of the Beneficiaries alone, this Report has not been prepared for the benefit of any other person or organisation who might have an interest in the matters discussed in this Report.

Contents

1 Tables

2 Figures

1 Executive summary

1.1 Purpose of this work

1.1.1 The Margin for Sustainability and Investment (MSI) is a margin (EBITDA, or earnings before interest, taxes, depreciation, and amortisation) based cost adjustment in the Transparent Approach to Costing (TRAC) for UK higher education (HE) institutions. The purpose of MSI is to represent the sustainable cost of operation in TRAC.

1.1.2 A 2022 review of the MSI methodology identified several areas for funders to consider, and noted several recommendations, some of which the Regulators and Funders Group (RFG) has asked the TRAC Development Group (TDG) to explore.

1.1.3 Assistance has been sought from KPMG Economics to undertake further work and provide advice on some of the recommendations (recommendations 4(a)-(d), 9 and 10 that concern the adjustments made and the allocation methodology applied to EBITDA for MSI) from the 2022 review commissioned by the RFG. In this work we consider each of the recommendations in the context of economic and financial principles and model the impact of any changes on the overall MSI calculation.

1.1.4 The costs in institutions' financial ledgers do not reflect the full economic cost (fEC) of HE activities. The fEC includes the direct costs, indirect costs and an adequate investment in infrastructure and future productive capacity. It is important that costs reported under TRAC reflect the full long-term costs of maintaining the institution's infrastructure in a safe and productive state, and to a standard required to be competitive in the sector. This approach is in line with other regulated industries such as water and energy where the regulators set the necessary return to drive long-term sustainability. See Annex B for further detail.

1.1.5 To take account of these factors, the MSI is added to the costs reported in the consolidated financial statements to present a fEC. The MSI reflects each institution's own financial strategy and is based on an agreed definition of the EBITDA. In this report we assess the recommendations in light of these considerations.

1.2 Approach

1.2.1 The following approach has been taken to addressing the recommendations coming out of the April 2022 report.

i. Determine the economic principles that are required for the MSI to be a credible estimate of the (long run) sustainability requirement. These are based on economic principles and regulatory precedent from other industries, as presented in greater detail in Annex B.

Principles applied to EBITDA adjustments

- Economic cost for sustainability
- Large one-off impacts
- Matching of income and expenditure

Principles applied in allocation considerations

- Risk profile
- Cost causality
- Capital requirements

ii. Consider how these principles apply to the recommendations being explored in both the calculation and allocation of EBITDA for MSI in the HE sector.

iii. Model impact on MSI by carrying out empirical analysis on TRAC summaries and institution submitted data, where relevant, to determine the impact of any adjustments and illustrative analysis to show how allocation methodologies impact EBITDA for MSI in Teaching, Research and Other categories.

Allocation considerations

- Allocation to 'Other (non-commercial)'
- Is there a better alternative basis for allocation?
- Should residences inform a basis for allocation?

1.3 Summary of conclusions and recommendations

1.3.1 We carried out empirical analysis of TRAC summaries to determine the impact of any adjustments and illustrative analysis to show how allocation methodologies impact EBITDA for MSI in Teaching, Research and Other.

Recommendation 4 – Review of certain technical assumptions

1.3.2 The outcome from the April 2022 report was that:

a) Funders may wish to consider whether they continue to agree with the assumption used for the treatment of endowments in the MSI calculation. The current treatment is to adjust out receipt of new permanent endowments of EBITDA for MSI, but the finance income is included. Expendable endowments are not adjusted for.

b) Funders may wish to consider whether they continue to agree with the assumption used for excluding capital grants from the MSI calculation. Currently Capital grants are excluded from EBITDA for MSI.

c) Funders may wish to consider amending the MSI guidance to deduct capital donation income from EBITDA. Currently capital donation income is not adjusted for in the calculation of EBITDA for MSI.

d) Funders should consider changing the TRAC requirements to not require MSI to be allocated to the 'Other (non-commercial)' category. Currently, MSI is allocated to all categories, including 'Other (non-commercial)', by expenditure.

1.3.3 We have determined three key principles that support the purpose of the MSI. These are required for the MSI to be a credible estimate of the (long run) sustainability requirement. They can be applied to considerations around the level of EBITDA for MSI and the adjustments made in its calculation. These principles are based on economic principles and regulatory precedent from other industries, which are presented in greater detail in Annex B. Given this, we propose the following treatment:

a) Continue with the existing treatment of endowments in the MSI calculation.

b) Continue to exclude capital grants from EBITDA for MSI, but consider whether an adjustment is necessary where capital grants fund operational expenditure.

c) Adjust for capital donation income only when it meets our proposed materiality criteria.

d) No longer allocate MSI to the 'Other (non-commercial)' category.

Recommendation 9 – Basis of allocating MSI to TRAC categories

1.3.4 The outcome from the April 2022 report was that funders may wish to consider whether an alternative basis of allocating the MSI should be adopted. Some options have been modelled, but consideration would need to be given to whether adopting a basis of allocation that more directly reflected the estates expenditure of institutions would be appropriate to future financing strategies and risks. Currently, MSI is allocated based on proportion of TRAC expenditure.

1.3.5 We propose that MSI continue to be allocated based on proportion of TRAC expenditure, as gathering significant additional data for a more accurate allocation would be complex and costly (for example, it is difficult to ascertain the valuation of intangible assets).

Recommendation 10 – Assessing the relationship between student residences and MSI

1.3.6 The outcome from the April 2022 report was that funders and regulators may wish to undertake a further data collection exercise to assess any relationship between residences arrangements and the levels of MSI, as this may inform a different basis of allocation. No separate consideration is currently given to residences arrangements in allocating MSI.

1.3.7 Residences arrangements concern how HE institutions provide housing for students and how they are accounted for in institutions' financial statements. Some institutions own their own residence buildings and rent these out to students, covering any maintenance and associated finance costs. But there are also a range of options by which institutions may involve a third party in the provision and delivery of residences arrangements.

1.3.8 We considered Recommendation 10 in two phases. Our illustrative analysis in Phase 1 found that residences arrangements impact both the level and allocation of MSI. Based on illustrative modelling of British Universities Finance Directors Group (BUFDG) case studies for service concession arrangements, we find that residences agreements could inappropriately impact the level and allocation of MSI.

1.3.9 To robustly analyse the impact of residency arrangements on the level and allocation of MSI, Phase 2 involved gathering further data on the nature of university residences arrangements to carry out more detailed analysis of their impact on EBITDA for MSI. We categorised residences into arrangement six types, numbered 0 to 5 (see Table 7).

1.3.10 The results of our Phase 2 analysis of institutions' data on residences confirmed that certain residences arrangements do distort the level of EBITDA for MSI for the sample of institutions that submitted data. Adjustments could be made to (i) remove any exceptional losses associated with residences (such as those experienced due to rental and nomination agreements in the Covid period) from the EBITDA calculation and (ii) treat finance costs as operating expenditure in the case of Type 4 (where an asset is recognised on the balance sheet despite not being owned). This would better align 'Residences EBITDA for MSI' to the relative risk exposure of the arrangement type.

1.3.11 The results of our Phase 2 analysis of TRAC allocation when adjusting for institutions' residences data also confirmed that residence arrangements distort the absolute value of EBITDA for MSI that is allocated to Teaching and Research. This impact is most material for residences Type 0 (institution-owned residences), which are held by over 70% of institutions that provided data. This indicates that the issue is material and pervasive. Adjustments to the TRAC allocation for residences costs may be made to recognise residences costs in a separate Other sub-category and calculate a separate Residences EBITDA for MSI.

1.3.12 Going forward, the RFG may want to consider requiring HE institutions to report residences information in TRAC. If TDG consider the issues to be material enough for adjustments to be made, adjustments for residences costs made by individual universities should be considered based on the treatment of expenditure as compared to a 'base case' of a university with no residences, considering the comparative risk of the arrangement.[1]

Further conclusions

1.3.13 There are other factors, outside of the scope of this phase of work, that could distort EBITDA for MSI in TRAC. Further analysis of the impact of these factors could be carried out if this issue became more pervasive and more institutions raise concerns.

1.4 Acknowledgement

1.4.1 We would like to thank those institutions that responded to our data request. We would also like to thank the British Universities Finance Directors Group (BUFDG) for promoting the data collection.

[1] Analysis in Table 8 shows how material residences are to EBITDA for MSI.

2 Background and introduction

2.1 Purpose and scope

2.1.1 The Transparent Approach to Costing (TRAC) is the methodology developed within the higher education (HE) sector to help HE institutions cost their activities. It is an activity-based costing system adapted to academic culture in a way which also meets the needs of the main public funders of higher education. TRAC uses institutional expenditure information from published financial statements and 'cost adjustments' to provide the 'full economic cost' (fEC) of activities.

2.1.2 The Margin for Sustainability and Investment (MSI) is a margin (EBITDA, or earnings before interest, taxes, depreciation, and amortisation) based cost adjustment in TRAC, with the purpose of representing the sustainable cost of operation. The MSI serves two purposes:

i. To enable the Research charge-out rates to be calculated based on the full economic costs.

ii. To enable the recovery of full economic cost to be understood.

2.1.3 The EBITDA for MSI represents cash generation rather than the accounting surplus. It is added to TRAC expenditure to arrive at a measure of full economic cost.

2.1.4 In 2022, KPMG produced a report detailing the findings from a review commissioned by the Regulators and Funders Group (RFG) to appraise the operation of the MSI. The review reflected some apparent concern in the sector that the MSI resulted in increased charge-out rates for Research. The report addressed:

i. The conceptual basis and rationale for a sustainability adjustment.

ii. A review of the MSI method, its calculation and impact on TRAC and the fEC charge-out rates.

iii. The presentation and communication of the MSI.

2.1.5 The 2022 review of the MSI methodology identified several areas for funders to consider, and noted several recommendations, some of which the RFG has asked the TRAC Development Group (TDG) to explore. The TDG has sought assistance from KPMG's Economics team to undertake further work and provide advice on some of the recommendations from the 2022 review (the work order for this work is detailed in Annex F). In this review, we consider each of the recommendations that we were asked to explore in the context of economic and financial principles and model the impact of any changes on the overall MSI calculation.

2.1.6 The basis of the need for the MSI is to ensure that full economic costs are included in TRAC costings and fEC charge-out rates. The costs in institutions' financial ledgers do not reflect the full economic cost of HE activities, which includes the direct costs, indirect costs and an adequate investment in infrastructure and future productive capacity.

2.1.7 It is important that costs reported under TRAC reflect the full long-term costs of maintaining the institution's infrastructure in a safe and productive state, and to a standard required to be competitive in the sector. This approach is in line with other regulated industries such as water and energy where the regulators set the necessary return to drive long-term sustainability. See Annex B for further detail.

2.1.8 To take account of these factors, the MSI is added to the costs reported in the consolidated financial statements to present a full economic cost. The MSI provides an institution-specific margin that is based on an average of past financial performance and forecast performance. This reflects each institution's own financial strategy and is based on an agreed definition of the EBITDA.

2.1.9 Calculating EBITDA for MSI from the Consolidated Financial Statements involves a number of adjustments to the reported operating surplus, which is then added to TRAC expenditure to arrive at the full economic expenditure. This is calculated for the last three actual years from the audited consolidated financial statements and forecasted EBITDA for MSI from the most recent financial forecasts submitted to the funding or regulatory body for the next three years.

2.1.10 EBITDA for MSI is first allocated to Estates and Indirect Cost pools and to academic Departments. EBITDA for MSI is then allocated to Teaching, Research and Other on the basis of TRAC expenditure.

3 Recommendation 4 – Review of certain technical assumptions

3.1 Introduction to Recommendation 4

3.1.1 The MSI calculation makes a number of adjustments in reaching the TRAC income and expenditure. Recommendation 4 stated that funders should consider the appropriateness of some of these adjustments. In order to conclude on the appropriateness of these assumptions, we have assessed the underlying economic rationale, considering relevant regulatory precedent, of the following:

A. Treatment of endowments in the MSI calculation

B. Exclusion of capital grants in the MSI calculation

C. Inclusion of capital donation income in the MSI calculation

D. Allocation of MSI to HE categories – should MSI be allocated to Other (non-commercial)

3.1.2 Key questions:

i. What are the principles that should be applied to these considerations?

ii. How do other regulated industries treat these adjustments?

iii. How do these principles apply to the calculation of MSI in the HE sector?

iv. What impact will making these adjustments have on MSI, and therefore what impact will the adjustments have on institutions, funders and other stakeholders?

3.2 Economic principles applied

3.2.1 We have determined three key principles that support the purpose of the MSI. These are the principles that are required for the MSI to be a credible estimate of the (long run) sustainability requirement. They can be applied to considerations around the level of EBITDA for MSI and the adjustments made in its calculation. These principles are based on economic principles and regulatory precedent from other industries, which is presented in greater detail in Annex B.

Economic cost for sustainability

3.2.2 All businesses need to cover the cost of financing and to generate a minimum level of retained surplus for investment, whether that be in capital, innovation or human resources (as businesses need to be sustainable). In economic theory, these surpluses are part of the costs of financing the business and contribute to full economic costs. EBITDA for MSI represents the amount of surplus that HEs need to sustain themselves (by, for example, servicing debt and/or generating appropriate surplus cash flow to invest in growth). The EBITDA for MSI is added to TRAC expenditure to arrive at full economic cost.

Large one-off impacts

3.2.3 Since the MSI is designed to support long-term investment requirements, it may be appropriate to make adjustments to EBITDA for MSI by excluding large one-off income or cost items that are not reflective of long run funding requirements and therefore distort an assessment of surplus. We discuss economic principles and regulatory precedent to arrive at a materiality threshold for adjustment of large one-off items.

Matching of income and expenditure

3.2.4 Expenditure should be considered within the TRAC surplus/deficit when it represents day-to-day activities and divided into categories based on the nature of the expenditure in order to reflect the day-to-day funding requirements of the institution. Consistently, income should be included within the TRAC surplus/deficit calculation when it is used to fund these activities and allocated to categories based on the profile of the specific activities funded by the income.

3.3 Economic theory and regulatory precedent to determine a materiality threshold for large one-off impacts

3.3.1 Financial Reporting Standard 102 (FRS102) does not require exceptional items to be shown below the operating profit line, nor does it dictate which items are to be shown on the face of the profit and loss account. Instead, it leaves this up to the entity to decide. It is important to note that items viewed as ‘exceptional’ for economic purposes may differ from items reported as exceptional in institutions’ financial statements, as the accounting threshold is typically higher. As a result, accounting standards cannot be relied upon to distinguish operating from non-operating items for economic purposes.

3.3.2 The HE sector is unique in the sense that items that might be considered exceptional items in other industries become part of day-to-day financing and underlying profitability due to the frequency in which institutions receive grants, donations or endowments. In this way, the precedent from other industries can inform on the approach, but there is limited direct read across.

3.3.3 Regulatory precedent often concerns itself with analysing underlying profitability for the purposes of assessing excess profitability (Competition and Markets Authority (CMA) investigations and reviews), or the price to be charged in certain industries (regulatory price determinations). We consider the CMA (and other national competition authorities) as a relevant comparator and their publications on profitability as relevant precedent for informing the MSI, which aims to reflect the economic cost of HE.

3.3.4 The Financial Conduct Authority (FCA) Strategic Review of Retail Banking Business Models defines underlying profits as "*the returns from ongoing retail banking activities, excluding business lines in wind-down, as well as exceptional costs and revenues such as fines and gains from asset sales*."[2]

3.3.5 Ofcom makes adjustments to smooth some volatile costs. "*[Ofcom] consider that [these costs] are forward looking and efficiently incurred if they produce future efficiency benefits and reduce future property related costs (and we are not aware of any information suggesting these costs may be inefficient). These costs fluctuate year on year therefore these costs have been included in the base year for the Statement by smoothing them over a three-year period.*"[3]

3.3.6 In a 2020 study of the funeral market, the CMA considered exceptional items in the analysis of underlying profit. "*Exceptional items typically occur infrequently or relate to transactions outside of the normal course of business […] As such, we do not consider them to be relevant to understanding the underlying profitability of the activity we are seeking to analyse*."[4]

3.3.7 Any item occurring more frequently than once every six years will be averaged over the six-year period of the EBITDA for MSI analysis. It will therefore not directly add to the volatility of the MSI calculation, and it would not be appropriate to adjust it out of the calculation. Items occurring less frequently than this should be considered with more scrutiny.

3.3.8 We have also considered the potential value of a materiality threshold against which to consider the impact of non-recurring items on the EBITDA for MSI. The Institute for Chartered Accountants in England and Wales (ICAEW) publishes guidance on materiality for audit procedures, making suggestions as to the line item to be considered as a benchmark, and the size of a percentage materiality threshold. The ICAEW recommends the following for not-for-profit entities:

i. Expenditure as a benchmark may be more appropriate than income as the level of income may vary from year to year but expenditure is more consistent.

ii. 1% of income or expenses is reasonable.

3.3.9 Ofgem also use a 1% threshold in their definition of a 'significant effect'. Stating that "*a change to the calculation of one or more Specific Items such that its effect on the calculation of Allowed Revenue for any Regulatory Year exceeds, or is likely to exceed, 1 per cent of Calculated Revenue for that Regulatory Year*."[5]

---

[2] FCA (2018) *Strategic Review of Retail Banking Final Report*. Available here, para.3.68

[3] Ofcom (2012) *Promoting investment and competition in fibre networks: Wholesale Fixed Telecoms Market Review 2021-26*, Annexes. Available here

[4] CMA (2019) *Funerals Market Study, Appendix S: Profitability of funeral directors*, Available here, p.S32

[5] ICAEW (2017) *Materiality in the audit of financial statements*, p.7, available here, and Ofgem (2023) *Standard conditions of the Electricity Distribution Licence.* Available here, para.46.19

3.3.10 We therefore consider that that where non-recurring items are recognised over an extended time period (for example, government grants recognised under the performance model), only the portion recognised in the relevant six-year period should be considered. If an income or expenditure item is less frequent than once every six years and impacts the six-year average EBITDA for MSI by at least 1% of total (TRAC) expenditure, it may be appropriate to adjust it out of the calculation.

3.4 Endowments

3.4.1 We considered the principles behind the assumption used for the treatment of endowments in the MSI calculation as well as the impact of changing the approach on the MSI calculation.

3.4.2 The accounting treatment for endowments in providers' financial statements involves recognising new endowments (restricted donations) in full at point of receipt in total income, which are therefore included in surplus. Expenses funded by endowments are also included in surplus. Endowment funds must be sub-divided into their capital element and an accumulated income fund in the accounts. Endowment income (both from new endowments and from permanent endowments) is allocated to the activity for which the endowment is given, or to other (non-commercial activity) if there is no direct category.

3.4.3 At the time of the adoption of MSI, the Financial Sustainability Strategy Group (FSSG) considered whether there was a case for excluding new permanent endowments from EBITDA to remove an element of volatility. It was agreed that it was important that the MSI was appropriate for sustainability purposes and therefore the deduction of new permanent endowments in the calculation for EBITDA for MSI was agreed. Income from permanent endowments artificially increase EBITDA, as only the investment income generated from them can be spent. It was proposed that this continue. In EBITDA for MSI, adjustments are not made to reported costs for expenses funded via endowments that are included in surplus.

3.4.4 Currently in the calculation for MSI, permanent endowments are adjusted out of surplus in the calculation of EBITDA for MSI. However, investment income generated from permanent endowments is recognised in adjusted EBITDA (as investment income is not removed). In EBITDA for MSI, adjustments are not made to reported costs for expenses funded via endowments. Expendable endowments are assumed to be typically expended over the period of the forecast and therefore income and expenditure tends to offset one another over the six-year period of the calculation. No adjustment is made to surplus/deficit.

3.4.5 We don't believe there is any relevant regulatory precedent from other markets, other than that expendable endowments are broadly equivalent to capital grants and the principles we outlined previously. However, following the principles outlined in 3.2 above:

i. The principle of economic cost for sustainability suggests the MSI needs to be appropriate for sustainability purposes. There is no risk associated with the endowment principle, but there is risk associated with its investment and hence it should be considered in MSI.

ii. Receipt of a new permanent endowment is material and infrequent but investment income is not.

iii. The investment income generated from permanent endowments may be used to pay for scholarships, financial aid and other charitable purposes. Where endowments can be spent on operational activities (and the expenditure recognised in TRAC), the income should be considered in EBITDA for MSI.

3.4.6 We, therefore, do not consider that an adjustment to remove expendable endowments from EBITDA for MSI is necessary, as they support day to day activities. Even if there were residual concerns about the treatment of these endowments, our analysis suggests that new expendable endowments are typically immaterial.

3.4.7 We consider that removing new permanent endowments from EBITDA for MSI is appropriate, as this income cannot be used to support operational activities and is likely to be volatile. We do not consider an adjustment for investment income generated from the permanent endowment to be necessary, as it is less volatile and supports day to day activities. Thus, we recommend that no changes to be made to the current treatment of endowments, and so no impact on the TRAC summary in respect of endowments.

3.4.8 To understand the materiality of new expendable endowments, we have analysed the TRAC summaries. ‘New endowments received and included in total income’ (Table A2) include new permanent endowments. The remainder is assumed to be new expendable endowments.

3.4.9 We analysed the materiality of expendable endowments by considering the number of Higher Education Institutions (HEI) for which the difference between ‘New endowments received and included in total income’ (Table A2) and ‘New permanent endowments’ (Table C1) that would materially impact EBITDA for MSI (by moving the six-year average above 1% of TRAC expenditure). This analysis suggests that that new expendable endowments are immaterial for almost all universities.

Table 1: Consideration of the materiality of expendable endowments

	2017/18	2018/19	2019/20	2020/21	2021/22
Number of institutions with total 'New endowments received and included in total income' (Table A2) that would materially impact EBITDA for MSI.	4	2	3	1	1
Number of institutions where the difference between 'New permanent endowments' (Table C1) and 'New endowments received and included in total income' (Table A2) is material.	2	0	2	0	1

3.4.10 The principles considered in relation to endowments can also be applied to the treatment of unitised funds in EBITDA for MSI. Although not in scope of this review, we understand that there are a small number of cases where institutions hold their endowments in a unitised fund. The accounting treatments of these arrangements may differ due to the terms of the fund and that this could have an impact on EBITDA for MSI.

3.4.11 We have not analysed all institutions to identify which may hold investments in unitised funds but have identified three institutions that discuss the existence of such funds in their financial statements. However, we are only aware of one that currently makes specific adjustments in TRAC as a result.

3.4.12 Where the unitised fund is used to fund operating expenditure, there will be a mismatch in EBITDA for MSI if the income is excluded from the calculation, which may unduly distort the return required for sustainability. We recommend that the TRAC guidance encourages institutions with such funds to consult and contact the helpdesk so that appropriate adjustments can be made in their TRAC returns.

3.5 Capital grants

3.5.1 We considered the principles behind, and impact of, the assumption used for excluding capital grants from the MSI calculation.

3.5.2 There are two methods under FRS102 and Further and Higher Education Statement of Recommended Practice (FEHE SORP) for accounting for capital grants (i) the performance model and (ii) the accrual model. Many grants have milestones that need to be met to release the payments. Other grants apply the matching concept and allow recognition at the point where the activities necessary to receive the grant have been completed.

3.5.3 This means that grant income tends to be deferred until the institution incurs eligible expenditure, which the grant then covers. HE institutions typically allocate grants to the class of asset to which they relate (revenue, land and other capital elements) and record under the relevant heading of funding body grants, research grants or other income as appropriate to the nature of the grant.

3.5.4 We note that 'capital' grants may, in some circumstances, be used to fund items that are recognised as operating expenditure in the financial statements of universities. For example, capital grants may fund investment in IT cloud systems, which is not typically capitalised.

3.5.4.1 Accounting for government grants when the accrual model is adopted leads to smooth recognition of grant income in line with expenditure. In the MSI the release of capital grants to income in line with depreciation is deducted from the surplus/deficit for the year.

i. Each grant is classified as either a capital or a revenue grant.

ii. Revenue government grants are recognised in income on a systematic basis over the periods in which the entity recognises the related costs for which the grant is intended to compensate.

iii. Capital government grants are recognised in income on a systematic basis over the expected useful life of the asset to which the grant relates.

3.5.4.2 Accounting for non-government grants and government grants when the performance model is adopted:

i. An institution adopting the performance model must recognise income from grants within the income statement when performance-related conditions are met.

ii. This can lead to large one-off grant income recognition at the point when a milestone is met.

iii. In the MSI, capital grants taken to income in the year are deducted from the surplus/deficit for the year.

3.5.5 We have identified several relevant regulatory precedents that can be considered in relation to grants.

3.5.6 Water companies receive grants and contributions from property developers towards specific expenditure for the provision of network services to new infrastructure. Ofwat consider that these grants and contributions do not underlie everyday profitability (effectively, they are contributions for one specific project).[6] Grants and contributions are not considered to be a driver of underlying return. When it comes to assessing the level of return that water companies can earn, income from grants and contributions offsets the funded expenditure, so that water companies do not double-recover these costs.

[6] Ofwat (2019) *PR19 Final Determinations, Securing Cost efficiency Technical appendix*. Available here, p.151

3.5.7 In telecoms, some parts of BT's network are funded by external entities. For example, Building Digital UK (BDUK) is a Department for Digital Culture Media & Sport scheme providing BT with funding to deploy broadband in areas that were not commercially viable.[7] Ofcom conclude that grant funding should be treated as a reduction in BT's asset and cost base and should be directly allocated and adjusted for in relation to the activity it is funding.[8] Ofcom require BT to provide information on grants received, including from BDUK. This will include details of the assets funded by grants, the level of grant funding for each asset and an explanation of how the grant arrangements work.

3.5.8 The precedent from both water and telecoms suggests that grants and contributions should not be included in calculation of regulatory return unless they are offset by corresponding expenditure so that they don't distort the profitability above normal levels. However, the argument for including grants within EBITDA for MSI in the HE sector may be stronger, as grants can underlie everyday profitability and fund day-to-day operations.

3.5.9 If grants are included, then the volatility of the income received should be considered, in line with our materiality threshold for large one-off impacts. The precedent in telecoms, alongside our principle of matching income and expenditure, suggests that any adjustments for grants should be made in the category to be funded. For example, any adjustments for grants relating to research should be made in the Research category.

3.5.10 Following the principles outlined in 3.2 above:

i. Capital grants form part of the financing of the institution's activity. Grants are usually for a nominated project or piece of work and often come with associated terms and conditions. A key question is whether the grants fund ongoing activities requiring support in excess of current or future grants to be sustained. If not, then it does not appear appropriate to include them in the MSI calculation.

ii. While grant income recognised using the accruals method will be smoothed in line with expenditure, grant income recognised using the performance method may be more volatile. We note that HEIs find it challenging to forecast future grant receipts.

iii. Grant income recognised using the accruals method will typically be matched alongside expenditure. However, grant income recognised using the performance method may not align exactly to the associated expenditure.

3.5.11 Capital grants typically fund capital expenditure, which is recognised as a cost through depreciation or amortisation. Under the current treatment, ignoring any timing differences, a capital grant and its associated expenditure are both excluded from the EBITDA for MSI calculation. Including capital grant income would significantly increase the EBITDA for MSI, as shown by our analysis in Annex C.

[7] Ofcom (2021) *Promoting competition and investment in fibre networks.* Available here

[8] A 'grant funding' asset category is included in the regulatory financial statements, which offsets the amounts reported in other asset categories.

3.5.12 If capital grants were to be included in EBITDA for MSI, then the calculation would produce a higher MSI for organisations which receive more grants. The activities funded by capital grants may require ongoing funding beyond the life of the grant, which may justify a higher MSI should future grant funding to sustain these activities not be available. However, as funders have historically supported these activities, we consider it reasonable to assume that similar grants will typically be available in future years to support ongoing funding of the activities. We therefore conclude that the current treatment is appropriate for government and non-government capital grants under both accounting treatments.

3.5.13 If 'capital' grants fund items that are recognised as operating expenditure, this operating expenditure will reduce EBITDA for MSI. In these cases, including grant revenue may be appropriate, as otherwise the net impact of the grant will be to reduce EBITDA for MSI. We recommend that information is gathered on the extent to which capital grants fund non-capitalised expenditure. If this is significant, the funder group may want to consider requiring HE institutions to report this information in TRAC, to enable an adjustment to be made on an ongoing basis.

3.6 Capital donations

3.6.1 We considered the principles behind amending the MSI guidance to deduct capital donation income from EBITDA, and the potential impact of this treatment.

3.6.2 In contrast to grant income, which must be recognised in line with expenditure, donations are typically recognised in the accounts of HE institutions at the point of receipt. When unrestricted donations are reported in the statement of comprehensive income in one year, but expenditure is made in subsequent years, the income forms part of TRAC income in the year the income is received (and the expenditure in the year it is made). Donations are included in providers' financial statements as part of total income, and therefore included in surplus and EBITDA, as well as the income part of the MSI calculation. Donations are allocated to the activity for which the donation is given, or to Other (non-commercial) activity if there is no direct category.

3.6.3 No adjustment is currently made to EBITDA for MSI for donations. Donations are assumed to be expended over the period of the forecast and therefore income and expenditure tend to offset one another over the six-year period of the calculation. Donations are analogous in some ways with the treatment of permanent endowments and capital grants. Although this circumstance arises only occasionally, it has been agreed on an ad hoc basis to deduct the resulting donation income from EBITDA.

3.6.4 We do not believe that there is any relevant regulatory precedent from other markets, other than that which can be drawn from the treatment of capital grants, and the principles outlined in 3.2 above. Following these principles:

i. If a HE institution expects to regularly receive donations so that it becomes part of expected income stream and, as such, is required for the operation of the HE institution, it is required for sustainability purposes.

ii. If a donation is material and infrequent, there is reason to adjust it out of EBITDA for MSI unless it can be recognised in parts and split over time.

iii. When received, donations income increases EBITDA. The general use of donation funds is typically specified, but they can typically be spent on day-to-day activities.

3.6.5 As donations are unrestricted, they can be spent on day-to-day activities. Institutions may reasonably expect to continue to receive donations on an ongoing basis, and so they may underlie everyday profitability. However, large, one-off donations may not underlie everyday profitability. Individual donations that are both infrequent and material (move six-year average EBITDA for MSI by more than 1% of total expenditure) should be adjusted out of EBITDA for MSI. All other donations should continue to be included (not adjusted out) in EBITDA for MSI.

3.6.6 Material one-off transactions should be excluded from EBITDA for MSI. We therefore recommend that no adjustment is made for capital donations unless they are above the materiality threshold. Analysis of the materiality of capital donations should be done on a per-donation basis, however current TRAC reporting does not segregate individual donations. Therefore, using Table A2 of the TRAC summaries, we have examined the materiality of the balance of 'New donations included in total income' for each year to understand the impact that making this adjustment could have. Individual donations would have a less material impact than the analysis presented below.

- 2017/18: seven institutions had total 'New donations included in total income' that would materially impact EBITDA for MSI, at a total of £43.4m. 5 out of 7 of these institutions are in peer group F, 1 in peer group A and 1 in peer group E.

- 2018/19: eight institutions had total 'New donations included in total income' that would materially impact EBITDA for MSI, at a total of £124.4m. 5 out of 8 of these institutions are in peer group F, 2 in peer group A and 1 in peer group E.

- 2019/20: six institutions had total 'New donations included in total income' that would materially impact EBITDA for MSI, at a total of £45.7m. 5 out of 6 of these institutions are in peer group F, and the other in peer group A.

- 2020/21: five institutions had total 'New donations included in total income' that would materially impact EBITDA for MSI, at a total of £43.9m. Out of 5 of these institutions are of peer group F, and the other in peer group A.

- 2021/22: seven institutions had total 'New donations included in total income' that would materially impact EBITDA for MSI, at a total of £107.8m. 4 out of 7 of these institutions are in peer group F, 1 in peer group A, 1 in peer group B and 1 in peer group E.

3.7 Allocation to 'Other (non-commercial)'

3.7.1 We considered the principles behind and impact of changing the TRAC requirements to not require MSI to be allocated to the 'Other (non-commercial)' category.

3.7.2 MSI in TRAC is allocated between the categories of Teaching, Research and Other on the basis of all expenditure. Other is sub-categorised into 'Other (income generating)' and 'Other (non-commercial)'. Therefore, EBITDA for MSI is allocated to 'Other (non-commercial)'.

3.7.3 This sub-category was created in line with FRS102 to capture items where the accounting treatment could distort the other categories. 'Other (non-commercial)' is reserved for specific sources of income and corresponding expenditure (arising primarily due to impact of FRS102 on timing of income recognition).

3.7.4 Items that will typically be included in this sub-category include:

i. Investment income including gains and losses on investments or endowments (that is not allocated to Teaching or Research).

ii. New endowments and donations (that are not allocated to Teaching or Research) and possibly new capital grants that have been allocated to this category in either the current or previous years.

3.7.5 It may also be the case that income and costs allocated to this category do not match, as the accounting requirements of FRS102 may mean that the income is recognised and therefore allocated to this category before any associated expenditure is incurred. The TRAC return does not require HE institutions to report TRAC expenditure split into 'Other (income generating)' and 'Other (non-commercial)' (although it does split TRAC full economic costs into the subcategories).[9]

3.7.6 The figures reported include the allocated EBITDA for MSI, and institutions often take different approaches to allocate expenditure and MSI. A key consideration in that the 'Other (non-commercial)' category contains one-off, non-operating items as a result of accounting treatments and would not be expected to generate a margin and it would seem appropriate that MSI is not allocated to this category.

3.7.7 Following the principles outlined in 3.2 above:

i. The purpose of the MSI is to calculate full economic costs of activities. The size of the margin allowance in a full economic cost stack should be driven by the risk profile, investment needs and the capital intensity of the activity. Therefore, under this risk principle, riskier activities would expect to have a larger proportion of MSI allocated. The items typically recognised in this category incur little risk.

ii. This category was introduced alongside the implementation of FRS102 to prevent the changes in accounting treatment, predominantly in respect of endowments, donations and investment gains and losses, from distorting the reporting of Teaching, Research and Other (income-generating) activities.

[9] See FSSG (2015) *TRAC - A guide for Senior Managers and Governing Body members*. Available here (henceforth 'TRAC guidance')

iii. TRAC guidance states that operational income and expenditure should not be allocated to this sub-category. This category should enable the Other (income-generating) activity category to be free from items that distort the reporting of that activity. The sub-category was created for FRS102 items to avoid the distortion of income under TRAC.

3.7.8 As the Other (non-commercial) category contains items that would not generate margin and are outside core activities then, on the basis of the principles outlined earlier, it aligns with the principles considered to not allocate MSI here, assuming this is not part of what is generating the surplus. However, the TRAC return does not currently require HE institutions to report TRAC expenditure split into 'Other (income generating)' and 'Other (non-commercial)'. The TRAC return also does not require the split of MSI between Other (income generating and Other (non-commercial). Therefore, several assumptions were made to model the impact of this change. Requiring HE institutions to report TRAC expenditure between the subcategories under Other would allow for TRAC to more accurately re-allocate MSI and mean that institutions more uniformly report costs in this category. This would require a change in the way in which data is collected.

3.7.9 In the TRAC summaries, TRAC expenditure and MSI are not split into 'Other' subcategories, however Table A reports TRAC full economic costs split between 'Other (income generating)' and 'Other (non-commercial)'.[10] From Table A, we assume that 'TRAC full economic costs (from Section A)' allocated to 'Other (non-commercial)' is representative of (or in proportion to) the level of TRAC expenditure and EBITDA MSI allocated to the category. In reality, some institutions may allocate TRAC expenditure and MSI in a different proportion. However, the analysis carried out provides some indication of the impact of not allocating MSI to 'Other (non-commercial)'. We then apply the calculated percentage to the apportionment of the EBITDA for MSI between TRAC categories excluding 'Other (non-commercial)' in a revised Table C3. Further details are provided in Table 2 and Figure 1.

Table 2: Impact of not allocating EBITDA for MSI to 'Other (non-commercial)' on Teaching, Research and Other (income-generating)[11]

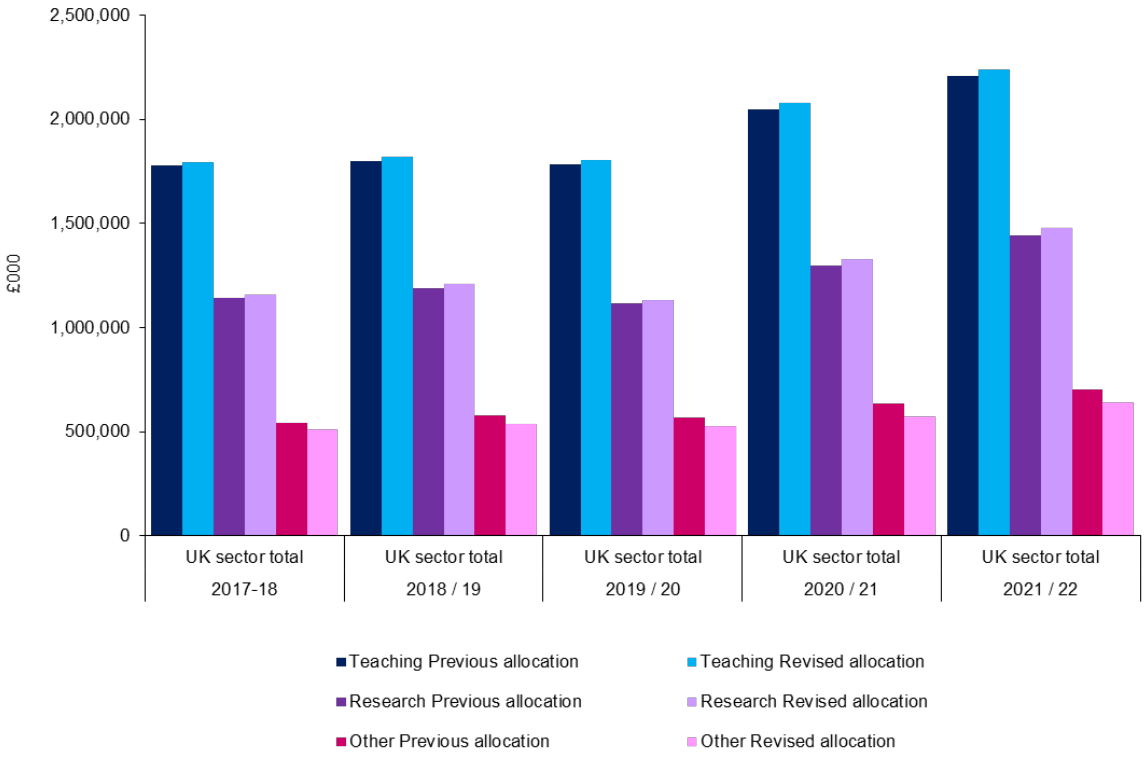
	Teaching	Research	Other
5-year average	+ £24.1m	+ £23.1m	- £47.1m
2017/18	+ £18.3m	+ £14.8m	- £33.1m
2018/19	+ £20.8m	+ £16.8m	- £37.6m
2019/20	+ £21.4m	+ £19.0m	- £40.4m
2020/21	+ £30.2m	+ £31.7m	- £61.9m
2021/22	+ £30.0m	+ £33.3m	- £63.3m

[10] TRAC full economic costs = TRAC expenditure + EBITDA for MSI

[11] See Annex C for detailed results.

3.7.10 Vertical axis shows the amount of MSI allocated. Horizontal axis shows the following six categories of TRAC activity which the MSI was allocated to. There are six columns. Two represent the allocation to Teaching, the first includes allocating to Other (non-commercial), and the second without the allocation to Other (non-commercial). The third and fourth columns represent Research and the fifth and sixth columns represent Other, again with and without allocation to Other (non-commercial). The amount allocated to Teaching and Research is increased slightly across the sector when MSI is not allocated to Other (non-commercial).

Figure 1: Impact of not allocating to 'Other (non-commercial)' on EBITDA for MSI for the UK sector total



3.7.11 Further analysis of the impact on a peer group basis is presented in Annex C.

3.8 Summary

Endowments

3.8.1 Expendable endowments (of which there are no adjustments for expendable endowments in the EBITDA for MSI calculation) support the day-to-day running of HE institutions. This approach aligns with the principles applied. For permanent endowments, the principal value is excluded from EBITDA for MSI as the endowment itself cannot be spent and income generated from the permanent endowment (investment income) is recognised in EBITDA for MSI as it is not adjusted out. This also aligns with the principles applied as it can be spent on day-to-day activities.

3.8.2 As such, no changes are required to the MSI methodology, and hence there is no impact on EBITDA for MSI.

Capital grants

3.8.3 Capital grants typically fund capital expenditure, which is recognised as a cost through depreciation or amortisation. Under the current treatment, a capital grant and its associated expenditure would have no net impact on EBITDA for MSI. Should future grant funding to sustain these activities in future years not be available, an increase in MSI may be appropriate. However, we consider it reasonable to assume that similar grants will typically be available in future years if necessary. If 'capital' grants fund items that are recognised as operating expenditure, an adjustment may be appropriate to include these grants in the calculation of EBITDA for MSI.

3.8.4 Therefore, no changes are required to methodology but information should be gathered on the extent to which capital grants fund non-capitalised expenditure. If this is significant, an adjustment to recognise some proportion of capital grants may be appropriate. This should be kept under review. This results in no impact on EBITDA for MSI.

Capital donation income

3.8.5 Currently, no adjustments are made for donations. Donation income is unrestricted and can be spent on day-to-day operations. Institutions may reasonably expect to continue to receive donations on an ongoing basis, and so they may underlie everyday profitability. Where donations are immaterial and infrequent, they are expected as part of regular financing, however, large, one-off donations may not underlie everyday profitability.

3.8.6 We, therefore, suggest that TRAC continues to make no adjustment for capital donations unless individual donations are above the materiality threshold. Analysis of the materiality of capital donations should be done on a per-donation basis but given the small number of cases, this may be considered unnecessary. They would be considered material if they move the six-year average EBITDA for MSI by more than 1% of total expenditure, in which case they should be adjusted out of EBITDA for MSI. Where necessary, institutions could provide information on large one-off donations to enable a materiality assessment to be completed.

3.8.7 We have considered the materiality of the full donation amount received in any one year. An average of 6.6 institutions had total 'New donations included in total income' that would materially impact EBITDA for MSI, at an average total of £73m. Making an adjustment will decrease overall EBITDA for MSI, however, this adjustment is likely to have minimal impact on TRAC when considered on a per-donation basis.

Allocation to 'Other (non-commercial)'

3.8.8 The items typically recognised in this category incur little risk and are capital employed. As the Other (non-commercial) category contains items that would not generate margin and are outside core activities, then they would not generate the MSI surplus. It therefore does not make sense to allocate MSI to this category.

3.8.9 We suggest changing the allocation methodology to not allocate EBITDA for MSI to 'Other (non-commercial)'. This will not involve a significant amount of data collection, however, to be able to accurately allocate, TRAC summaries should report TRAC expenditure to each 'Other' subcategory in Tables C3 and F1.

3.8.10 On average, across five years for the total UK sector, the allocation of EBITDA for MSI to Teaching has increased by £24m (1.24%), Research increased by £23m (2.24%) and Other decreased by £47m (-9.28%) as a result of no longer allocating MSI to Other (non-commercial).

4 Recommendation 9 – Basis of allocating MSI to TRAC categories

4.1 Introduction to Recommendation 9

4.1.1 EBITDA for MSI in TRAC is allocated to Teaching, Research and Other on the basis of all (TRAC) expenditure. The size of the margin allowance in a full economic cost stack should be driven by the risk profile, investment needs and the capital intensity of the activity (see Annex D for detail)[12].

4.1.2 MSI should therefore in principle see a higher allocation to activities that are more capital intensive and riskier. Allocating based on expenditure is assumed to capture the capital intensity side of the equation. TRAC expenditure is allocated to each sector using an activity-based costing system.

4.1.3 There are three key questions considered in relation to Recommendation 9:

i. What are the economic principles that can be applied to allocation considerations?

ii. How appropriate were the methodologies considered in the previous report?

iii. Should an alternative basis of allocating the MSI should be adopted? Would adoption of a basis of allocation that more directly reflects the estates expenditure of institutions be appropriate to future financing strategies and risks?

4.1.4 Calculated charge-out rates provide an institution specific basis for the research-related elements of indirect costs, estates costs, facilities and equipment, and technicians. These rates are accepted by the UK Research Councils as the only basis of costing research bids and are used by institutions in forecasting the full costs of research projects and informing pricing. The method of allocation of full economic costs, of which EBITDA for MSI is a key component is a key driver of the research charge-out rates.

4.1.5 The April 2022 report (Section 4.2.6) considered different approaches to the allocation of EBITDA for MSI in an Activity Based Costing system:

i. Method 1: Finance charges, depreciation and amortisation components of the EBITDA for MSI allocated in proportion to estates costs; remainder of EBITDA for MSI allocated in proportion to all expenditure (less estates costs).

ii. Method 2: Depreciation and amortisation components of the EBITDA for MSI allocated in proportion to estates costs; remainder of EBITDA for MSI (including finance charge component) allocated in proportion to all other expenditure (less estates costs).

[12] Note that 'capital intensity' does not necessarily mean purely physical capital and should also consider intangible capital.

iii. Method 3: EBITDA for MSI allocated in proportion to all estates costs.

4.1.6 The report concluded that Method 3 should likely be discounted as the purpose of the MSI is not solely to support estates development and renewal. Changing the basis of allocation to Method 1 would assume that there was a relationship between depreciation, amortisation and finance charges and expenditure on the estate. Method 2 would make similar assumptions, but that finance charges were not as closely aligned with estates expenditure.

4.1.7 Each of these alternative bases of allocation tended to reduce the indirect charge-out rates, whilst driving more cost to estates and thereby increasing the estates charge-out rates (both lab and non-lab rates) significantly and reducing the composite research charge out rates overall.

4.2 Critical analysis of previous modelling

Methods 1 and 2

4.2.1 The risk and capital intensity of the activities should be considered. Allocating deprecation by estates costs aligns with economic principles, however it does not follow that amortisation should be allocated in this way. It is not clear why Method 1 allocates finance charges in this way, as it is not necessarily the case that loans are taken out purely for the purchase of physical assets. A breakdown of depreciation, amortisation and finance charges and the items they relate to would support this consideration.

4.2.2 Methods 1 and 2 also ignore intangible assets that are crucial to the sustainability of HE institutions, for example reputation and intellectual property. These assets also require investment. Allocating based on the capital requirements of each activity could be considered, as more capital intensive and higher risk activities should get a higher allocation of MSI.[13]

Method 3

4.2.3 Method 3 was not considered in detail as we agree with the conclusion of the previous reports that the purpose of MSI is not solely to support estates maintenance. Estates expenditure also does not necessarily align to the risk profile of activities.

4.3 Other considerations for MSI allocation

4.3.1 There are several other factors that could be considered in an allocation of MSI. In typical economic regulation, the margin allowance is driven by the risk profile, investment needs and the capital intensity of the activity. This is used to derive a cost of capital, which is applied to the capital employed to produce an allowable margin. In line with this, more capital intensive and higher risk activities should get a higher allocation of MSI.

[13] See Annex D for more detail.

4.3.2 Determining the risk profile of the activities is important for considering the margin that should be applied. Activities with higher risk profiles (which concerns the exposure of the activity to both market and systematic risk) require higher expected return to drive investment.

4.3.3 Determining the capital requirements of each activity may not be as simple as assessing the physical assets associated with that activity. For activities such as teaching and research, there are significant intangible assets associated with the success and sustainability of the activity. As these activities increase the value of HE institutions, the associated intangible assets are of high importance to the sustainability of the HE institution.

4.3.4 Further, when basing a margin allocation in proportion to costs, costs themselves should be allocated in accordance with the activities that cause them. Regulatory precedent suggests that allocation of grants should be made to the activity to which they relate.

4.3.5 These considerations are equally valid but will require more detailed data, such as data on the comparative riskiness of assets held by universities, and the value of intangible assets, However, they suggest that there are significantly more factors driving sustainability in the sector than estates costs, and focusing solely on estates costs would distort an allocation. We believe that intangible assets are a particularly material consideration.

4.4 Intangible assets

4.4.1 Internally generated intangible assets are frequently not capitalisable and so are not reported on the balance sheets of universities. However, there are some intangible assets that may be considered in relation to the capital requirements of universities.

4.4.2 The reputation of a university directly impacts its ability to attract funding and can be thought of as an asset that has been cultivated by high standards of teaching and research. This is similar to the brand value of corporates. This is an asset that needs sustaining so that HE institutions can continue to attract the same level of funding.

4.4.3 The CMA recognise that firms incur higher marketing costs in building a brand or reputation with the aim of generating earnings in the future, and that this brand or reputation has a value. In its study of the funerals market, the CMA considered that it was reasonable to make an adjustment to include additional capital employed for firms, representing the cost invested in “trade name or reputation” assets.[14]

4.4.4 R&D and intellectual property may not always be capitalised and may be generated using human capital, which is generally expensed. However, these assets are important for HE institutions’ ability to attract funding and institutions would operate less effectively without these assets.

4.4.5 Taking account of the key unrecognised intangible assets for universities would facilitate a more accurate allocation of MSI. However, there are some significant challenges with this approach:

[14] CMA (2019) *Funeral market study, Appendix S Profitability of funeral directors*. Available here

i. Valuation of intangibles is typically complex, and often results in uncertain, subjective outcomes. It is likely to be highly challenging to design a methodology to accurately estimate the value of intangibles held by each institution, and which category of Teaching, Research or Other they should be recognised in.[15]

ii. It would also be challenging to design a methodology that is sufficiently robust to support ongoing investment in these intangible assets, without excessively rewarding institutions with the highest intangibles balance due to historical investment or creating inappropriate incentives for universities to invest in certain activities.

iii. Should an appropriate methodology be designed, it would require significantly more data to be submitted by the HE institutions.

4.5 Omitted variables may distort an allocation

4.5.1 Updating the allocation to take account of estates costs will lead to certain costs being allocated more in line with tangible assets. It may also be appropriate to allocate other costs more in line with intangible assets, which are not currently recognised on the balance sheet. However, this is likely to be very challenging to accurately estimate. As it is not known whether intangibles assets costs are distributed on the same basis as physical asset costs (estates costs), an allocation based on these risks distorting the allocation.

4.5.2 These adjustments may be expected to have differing impacts on the overall allocation of MSI. Taking account of one of them, but not addressing the other due to estimation challenges, may result in a more inaccurate allocation than not accounting for either. This is broadly consistent with the omitted variable problem in econometrics.

4.5.3 Econometrically, omitted variable bias occurs when factors that are useful in explaining the variation in the value in question ('explanatory variables') are omitted from an econometric model, leading to incorrect estimates and misleading conclusions.[16] The impact of this might be that the effect of one variable is overestimated, giving a biased result, as the net effect of the two variables (where only one is observed and the other is omitted from analysis) is not modelled.

4.5.4 In an allocation methodology, where there are multiple variables impacting an econometric model, including just one of them can make it more inaccurate than including none and any allocation may be distorted. It is quite plausible that intangible valuations and/or risk would be proportionately higher for research activities than for teaching; and that the opposite would apply to estates costs. Allocating MSI by estates costs would therefore be likely to lead to too high allocation to teaching and too low an allocation to research.

---

[15] See CMA (2017) CC3 *Guidelines for market investigations: Their role, procedures, assessment and remedies*, Annex A, paras.12-14. Available here

[16] Clarke et al. (2016) *Omitted Variables, Countervailing Effects, and The Possibility of Overadjustment.* Available here

4.5.5 We have provided in Fig. 2 and Table 3 an illustrative example below that shows how the proportion of assets in each category may change when including intangible assets.

Figure 2: Proportion of assets in each category, illustrative tangible and intangible assets

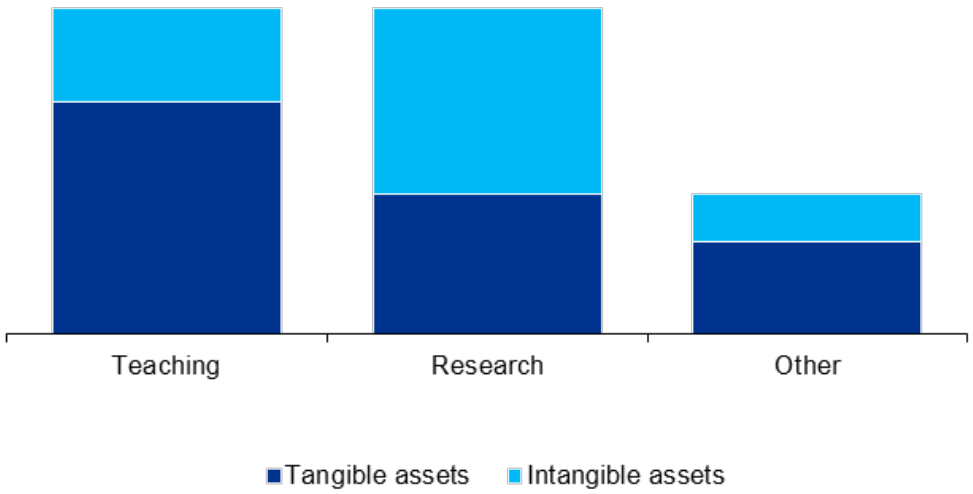


Table 3: Proportion of assets in each category

	% tangible assets	% total assets
Teaching	50%	41%
Research	30%	41%
Other	20%	18%

4.5.6 Further, estates costs are not necessarily linked to the valuation of the estate. Higher estates costs may be incurred for lower value properties (such as older, more dilapidated properties). To illustrate the potential impact of different allocation methods, we have expanded the previous modelling to incorporate a further three potential scenarios. These are applied to real data from a select institution in Table 4, with amounts standardised, to show how the allocation to Teaching, Research and Other may change under each allocation method.

Table 4: Potential impact of different allocation methods

	Detail	Notes
0	**Allocated in proportion to TRAC expenditure**	This is the current TRAC approach
1	**Finance charges, depreciation and amortisation allocated in proportion to estates costs.**	As per previous modelling. Remaining EBITDA for MSI is allocated in proportion to all other expenditure (less estates costs)
2	**Depreciation and amortisation allocated in proportion to estates costs.**	As per previous modelling. Remainder of EBITDA for MSI is allocated in proportion to all other expenditure (less estates costs)
3	**EBITDA for MSI allocated in proportion to all estates costs**	As per previous modelling.
4	**Allocate all EBITDA for MSI in proportion to capital employed**	Data is not available to allocate some capital assets between categories, so in these instances we have had to rely on estates costs to provide an indicative allocation of capital assets.[17]
5	**Allocate all EBITDA for MSI in proportion to risk of the activity to which it relates**	Allocates in line with an estimated beta (a measure of the relative risk of different activities) for each category, assuming an equal capital intensity across all activities.[18]
6	**Granular depreciation and grant allocation**	Depreciation allocated in proportion to estates costs. Any grant or other specific income and expenditure allocated directly to the activity to which it relates. Remainder of EBITDA for MSI allocated in proportion to all other expenditure.[19]

[17] Annual report and asset assumptions

[18] FT Beta for comparable teaching and research companies. Beta for Other is assumed to be in line with charity assumptions.

[19] KPMG analysis of TRAC summaries

Table 5: Appraisal of approaches to allocating EBITDA for MSI

	Teaching	Research	Other	Appraisal
0	35,851	53,699	10,450	Method is operationally simple but may not take account of all factors that should impact MSI allocation.
1	46,896	43,758	9,346	Both of these methods account for estates costs but ignore other considerations that may impact allocation methodology. It is unclear whether the treatment of finance costs and amortisation is appropriate. This method adds complexity compared to Method 0 and may not improve the accuracy of allocation.
2	43,343	46,956	9,701	
3	48,221	42,565	9,213	As per the previous analysis, this method is not considered appropriate.
4	48,210	42,579	9,211	This attempts to consider capital intensity of the category in line with principles discussed in Annex D. However, due to data unavailability, including for intangible assets, this method is not considered appropriate.
5	30,915	37,430	31,655	This attempts to consider the different risk profile of each activity, in line with principles discussed in Annex D. However, due to data unavailability, this does not take account of the relevant capital intensity of each activity, and so this method is not considered appropriate.
6	41,349	48,659	9,993	This builds on Scenarios 1 and 2, using available data to allocate depreciation and certain income items in a more granular manner. However, it still does not account for other issues such as intangible assets and adds significant complexity to the allocation. More data would be required to justify a change in approach.

4.6 Conclusions

4.6.1 There are significantly more factors driving sustainability in the sector than estates costs. The most appropriate way to allocate the MSI would be to take account of the capital intensity and relative risk profile of different activities. However, there are significant data challenges in doing this, most notably:

i. There are likely to be significant unrecognised intangible assets, which are challenging to value and allocate between activities.

ii. Measuring the relative risk profile of different activities may be challenging, with few pure-play comparators available given the different business models of universities and for-profit firms.

iii. The cost of gathering and assuring this data is, in our view, likely to outweigh any potential benefits from a more accurate allocation.

4.6.2 In the absence of data to perform a comprehensive, capital and risk-based allocation, making individual tweaks to the existing valuation method to account only for particular items, such as estates costs, may distort the allocation, and increase the complexity of allocation. We note that more complex allocation methodologies not only increase the administrative burden of TRAC, but also increase the risk of errors being introduced into the calculation.

4.6.3 Our recommendation is, therefore, to continue with the current approach of allocating based on overall TRAC expenditure. However, should the potential increase in accuracy be viewed as worth the risk of increasing bias and complexity, we consider that Scenario 6 presented represents the next most appropriate allocation basis, as the adjustments it introduces are individually justifiable and require minimal additional data.

5 Recommendation 10 – Assessing the relationship between student residences arrangements and MSI

5.1 Introduction to Recommendation 10

5.1.1 The impact of residences arrangements on MSI was highlighted as an area for further review in the previous report.

5.1.2 Residences arrangements concern how HE institutions provide housing for students. For example, in the majority of cases, institutions own at least some of their own residences buildings and rent these out to students, covering any maintenance and associated finance costs. But where institutions might involve a third party in their residences arrangement, the institution may pass through student rents but receive an arrangement fee.

5.1.3 No separate consideration is given to residence arrangements in allocating MSI currently. Given our understanding of the different arrangements of residences arrangements that universities may have, then it is feasible for them to impact both the level and allocation of MSI.

5.1.4 This impact may be appropriate if it accurately reflects differences in the risk borne by different universities but may be inappropriate if it results in an undue distortion to (i) the level of EBITDA for MSI and (ii) the allocation of EBITDA for MSI.

5.1.5 KPMG analysis provides advice on Recommendation 10 of the report concerning the impact of residences arrangements on the level of MSI. Phase 1 provides a theoretical basis for the allocation of MSI in the context of residences.

5.1.6 This phase considered illustrative modelling of British Universities Finance Directors Group (BUFDG) case studies for service concession arrangements and concludes that residences arrangements had the potential to inappropriately impact the level and allocation of MSI.

5.1.7 Phase 2 builds upon the findings in Phase 1 by incorporating residences data from HE institutions to assess whether residences agreements are materially impacting the level and allocation of MSI. The analysis considered the below questions.

Do residences arrangements impact the level of EBITDA for MSI, and is this commensurate with the risk assumed?

5.1.8 If a particular way of arranging residences does not change the risk exposure of the institution, compared to if it was arranged in an alternative way, then the economic cost of the residences does not change. As a result, the level of EBITDA for MSI a university received should not change either.

5.1.9 However, when a particular residence arrangement changes the level of risk assumed by the university or the quantity of capital employed, compared to another particular arrangement, we would expect a resulting change in the necessary return, and so MSI.

5.1.10 The key concern is that when the accounting treatment for a residency arrangement results in expenses being moved ‘above’ or ‘below’ the line of EBITDA, this may change the level of EBITDA for MSI in a way that is not consistent with MSI principles. For example:

i. Where an institution owns their own residences, they are exposed to risk. Any associated finance charges and depreciation are added back to surplus/deficit when calculating EBITDA for MSI, thus increasing the level commensurate to the risk profile.

ii. Where the institution should recognise an asset on the balance sheet as per service concession arrangements despite not owning it or incurring operating expenses, the institution may instead pay a finance charge. Under this arrangement all costs, including those (such as operating expenditure) which are not added back when calculating EBITDA, are added back when calculating EBITDA in TRAC, as expenses are incurred by the operator and recognised as a finance charge by the university. This leads to a higher reported EBITDA for the university as compared to the previous example, which is not aligned to any increase in the risk profile for the institution.

Do residences arrangements distort the allocation of EBITDA for MSI to Teaching and Research?

5.1.11 EBITDA for MSI is allocated between Teaching, Research and Other. Residences expenditure is recognised in Other, and we have reviewed how the inclusion of residences impacts the allocation of EBITDA for MSI to Teaching and Research, and whether it is appropriate. We consider the principles that could be considered in respect of residences arrangements as a basis for MSI allocation in Annex B.

What adjustments to the MSI calculation may be necessary, and what data would be required?

5.1.12 Based on our findings from the above two questions, we have proposed adjustments to the MSI calculation to remedy distortions and identified the additional data that would need to be gathered as part of TRAC returns.

5.2 Principles applied

5.2.1 As explored in discussion of Recommendation 9, there are other drivers of sustainability that should also be considered in a methodology for allocating EBITDA for MSI. The size of the margin allowance in a full economic cost stack should be driven by the risk profile, investment needs and the capital intensity of the activity.

5.2.2 Businesses with high capital intensity require higher margins than those with low capital intensity (such as asset-light firms). Capital investment also increases associated risk.[20] Where a residences arrangement increases the risk and capital requirement for an institution, this would require an increased allocation of MSI.

[20] As discussed in the CMA's energy market investigation, an EBIT margin for a relatively asset-light firm would make a return approximately equal to its WACC, but a firm that holds capital could expect to earn a higher margin (final report, footnote 7). However, it is important to note that an EBIT margin is earnings before depreciation. Therefore, a firm that outsources residences would see these costs reflected in EBIT, but a firm that owns residences buildings would not see the associated costs (depreciation) in EBIT, but would in an EBITDA analysis.

5.2.3 A HE institution that chooses to invest in capital (by building its own residences buildings) rather than enter into a financing arrangement with an external party who shares some of the risk could expect to earn a higher margin, with the incremental margin serving to remunerate the additional capital employed. If TRAC were to allocate EBTDA for MSI based on residences arrangements, the capital value of the residences will need to be assessed. This includes:

i. Value of the residences buildings, including any deprecation.

ii. Consideration of the replacement cost of the buildings.

iii. Capitalisation of maintenance costs to reflect economic value.

iv. The financing strategies of the buildings and any associated finance costs.

5.2.4 Robustly calculating the replacement cost of residences buildings is difficult and time consuming and would require sufficient data. Regulatory precedent can inform an approach to valuing the replacement cost of assets. In an investigation of the private healthcare market, the CMA found that that the historic cost of land and buildings was likely to significantly understate the current economic cost due to inflation and changing real prices over the period since acquisition of the assets.

5.2.5 The CMA concluded that land owned by the relevant firms should be valued at the cost of replacing it with an equivalent plot or constructing an equivalent building (the 'reinstatement cost'). The CMA consider a range of approaches to determining an asset value, such as its insurance value and applying inflation to uplift a historic cost, but note that neither of these options provide an accurate assessment. The CMA also allow for the capitalisation of investments made by parties to improve their freehold buildings in addition to the reinstatement value.[21]

5.2.6 The analysis presented in the following sections considers residences arrangements in respect of these principles. Where a residences arrangement requires a higher level of capital or incurs higher risk, we expect an increased margin to be applied.

5.3 Phase 1 case study modelling

5.3.1 TRAC does not currently require institutions to report data on their residences arrangements. Therefore, at Phase 1, we provided theoretical analysis and illustrative examples to explore the impact of different residences arrangements. The arrangements analysed are based on examples in the BUFDG Service Concession case studies which was produced by BUFDG for BUFDG members to assist institutions implement the requirements of FRS102 and the SORP in relation to service concession arrangements.

[21] CMA (2020) *Funeral market study, Final Report*, Appendix S, p.S10, available here, and CMA (2014) *Private healthcare market investigation Final report*, para.6.459-6.460. Available here

5.3.2 The following approach to modelling was taken:

i. Take examples from BUFDG case studies on service concessions and follow accounting treatment as outlined in the BUFDG report, making assumptions (see Annex F for full table of assumptions) so case studies can be compared and add further examples to compare to treatment of owned residences (as the arrangement type most commonly used by institutions).

ii. Apply accounting treatment for owned residences arrangements for both loan financing and financing from retained earnings and calculate EBITDA for MSI under these arrangements.

iii. Follow TRAC adjustments to arrive at EBITDA for MSI under the different residence arrangements to analyse whether the arrangement impacts the level of EBITDA for MSI.

iv. Consider how EBITDA for MSI is allocated to Teaching, Research and Other given TRAC expenditure as a result of residence arrangement to analyse whether the arrangement impacts allocation of EBITDA for MSI.

5.3.3 The case studies considered are as follows:

- Case Study 0a: Owned own residences with financing out of retained earnings.
- Case Study 0b: Owned own residences with loan financing.
- Case Study 1: Residency arrangement with occupancy guarantee.
- Case Study 2: Residency arrangement with no occupancy guarantee.
- Case Study 3: Residency arrangement with the institution holding an operating lease with a joint venture (JV) in which the institution holds a 50% interest.
- Case Study 4: Residency arrangement with nomination rights, but no occupancy guarantee.
- Case Study 5: Private finance initiative (PFI) arrangement for the construction and servicing of a halls of residence.

5.3.4 The outcome of our illustrative case study modelling is presented in Table 6 and further detail is presented in Annex F. We compare the risk of each arrangement to the modelling outcome using no residences as a base (with EBITDA for MSI of zero) and consider that all case studies other than 0a and 0b result in distortion of EBITDA for MSI and/or its allocation.

Table 6: Outcome of illustrative case study modelling

Case study	EBITDA for MSI [22]	Allocation % to T, R, O (based on TRAC expenditure)		
		Teaching	Research	Other
0a	11,083	43%	29%	28%
0b	11,083	39%	26%	35%
1	16,142	42%	28%	30%
2	475	38%	25%	38%
3	221	51%	34%	14%
4	15,833	38%	25%	38%
5	14,833	42%	28%	30%

5.3.5 Case Study 0a presents a ‘base case’ for these arrangements and sees operating expenditure incurred by an institution with no financing risk, as it is financed out of retained earnings. In Case Study 0b, operating expenditure is incurred by the institution with finance risk due to loan financing arrangement. The total EBITDA for MSI is the same as for Case Study 0a, as interest expense is added back in the calculation and the expense is not recognised in EBITDA, unlike operating expenses. This is consistent with MSI principles.

5.3.6 The increased interest expense leads to an increased MSI allocation to 'Other’ as compared to Case Study 0a which appears in line with the principles of allocation based on the underlying drivers of risk and return.

5.3.7 Under the arrangement in Case Study 1, operating expenses are incurred by the operator but are effectively recognised by the institution as deprecation and finance costs paid to the operator. Therefore, these costs are not recognised in EBITDA. This leads to a higher reported EBITDA for the university as compared to Case Study 0a (where all costs related to operation of the residences are recognised in EBITDA), which is not aligned to any increase in the risk profile.

[22] Here, EBITDA isolates the impact of residences arrangements. Therefore, the differences across rows are a result of the different residences arrangements. The analysis holds other inputs consistent across the examples.

5.3.8 The increased interest expense leads to an increased MSI allocation to ‘Other’ as compared to Case Study 0a which appears in line with the principles of allocation based on the underlying drivers of risk and return.

5.3.9 EBITDA for MSI in Case Study 2 contains only a 3% management fee. Rental income is remitted to the operator, and no asset or liability is held on the institution’s balance sheet. This is consistent with MSI principles, as the risk to the university is significantly lower under this arrangement than under Case Study 0a.

5.3.10 Rental income is recognised with an offsetting operating cost representing the remittance to the operator. As MSI allocation is based on expenditure alone, this increased cost results in an increased proportionate allocation to Other compared to Case Study 0a, which is not consistent with MSI principles.

5.3.11 The EBITDA for MSI calculation makes an adjustment for the share of surplus/deficit in the JV and associates. When the JV is in surplus, this would increase EBITDA for MSI for the institution and it would decrease when the JV is in deficit. The surplus/deficit for the JV is not an EBITDA figure, therefore it recognises finance expenses and depreciation.[23] Case Study 3 considers that the JV/associates holds the residences as per Case Study 0b, incurring both finance charges and depreciation.

5.3.12 The result for Case Study 3, therefore, appears lower, as all costs, including those (such as depreciation and finance charges) which would not be recognised in EBITDA under 0b, are recognised when calculating EBITDA in TRAC, as they form part of the share of surplus/deficit in the JV and associates. This leads to a lower EBITDA for the university compared to Case Study 0b, which is not aligned to any reduction in the risk profile.[24]

5.3.13 The MSI allocation is based on expenditure, which does not include the share of surplus in the JV and associates. As a result, the residences costs are not taken account of in the allocation, and so this arrangement results in a substantially lower proportionate allocation of MSI to Other compared to Case Study 0a, which is not consistent with MSI principles.

5.3.14 Under the arrangement in Case Study 4, operating expenses are incurred by the operator but are effectively recognised by the institution as deprecation and finance costs paid to the operator. Therefore, these costs are not recognised in EBITDA. This leads to a higher reported EBITDA for the university as compared to Case Study 0a (where all costs related to operation of the residences are recognised in EBITDA).

[23] Where EBITDA = operating income – operating expenses, surplus/deficit = EBITDA – finance expenses – depreciation. Surplus/deficit is therefore lower than EBITDA when an entity incurs finance expenses and depreciation on assets.

[24] The comparison shows that where the institution holds residence, as per Case Study 0b, rather than the institution holding shares in a JV that holds residences, as per Case Study 0b (resulting in the institution following Case Study 3), EBITDA is lower for the institution.

5.3.15 The increased expense associated with meeting the accommodation guarantee (as per the BUFDG case study) leads to an increased MSI allocation to 'Other' compared to Case Study 0a. This appears in line with the principles of allocation based on the underlying drivers of risk and return.[25]

5.3.16 Finally, in Case Study 5 all costs other than the service expense paid to the operator, including those (such as operating expenditure) which are not added back when calculating EBITDA, are added back when calculating EBITDA in TRAC, as expenses are incurred by the operator and recognised as a finance charge by the university. This leads to a higher reported EBITDA for the university as compared to Case Study 0a, which is not aligned to any increase in the risk profile.

5.3.17 The increased interest expense leads to an increased MSI allocation to 'Other' compared to Case Study 0a. This appears in line with the principles of allocation based on the underlying drivers of risk and return.

5.4 Phase 1 conclusions

5.4.1 It is feasible for certain residency arrangements to impact both the level and allocation of MSI in a way that is not consistent with MSI principles.

5.4.2 The analysis suggests that different residency arrangements can result in significantly different levels of EBITDA for MSI. Where universities own their residences or enter simple residency arrangements with no occupancy guarantee, we consider that the level of EBITDA for MSI is consistent with the MSI principles, as it aligns to the level of risk assumed by the university.

5.4.3 However, when the accounting treatment for a residency arrangement results in expenses being moved 'above' or 'below' the line of EBITDA, this can change the level of EBITDA for MSI in a way that is not consistent with the MSI principles.[26] This hypothesis is tested further in Phase 2 by analysing data on the residences arrangements operated by HE institutions to assess the materiality of this impact and the nature of any adjustments to be made to the MSI calculation.

5.4.4 Currently, EBITDA for MSI is allocated in proportion to TRAC expenditure. As residences costs are recognised in 'Other', then any change to total residences expenditure as a result of the residency arrangement will impact the allocation of EBITDA for MSI. In our illustrative modelling, this can be seen most clearly in Case Study 0b, when universities take out loan financing to fund construction of their own residences. The interest expense increases residences costs as compared to Case Study 0a, and so results in a higher allocation of MSI to 'Other'.

[25] We note, however, that assumptions around revenue and accommodation levels do not appear consistent between scenarios, so this arrangement will not always result in an increased allocation of MSI to Other.

[26] Note that the introduction of IFRS 16 is likely to mean that an asset should be recognised in all types.

5.4.5 This appears consistent with the MSI principles, as residences generate a return for universities, and so it would be appropriate to allocate an increased proportion of MSI to 'Other' when these costs increase. As allocation is based on total expenditure, it is not impacted by the movement of expenses 'above' or 'below' the line of EBITDA. However, where the total costs recognised by a university change as a result of residences, the allocation of EBITDA for MSI changes in a way that is not consistent with MSI principles.

5.4.6 The results of the Phase 1 analysis of illustrative case studies suggested that there may be distortions to EBITDA for MSI as a result of residences arrangements. To understand whether adjustments to TRAC should be made to correct for potential distortion, Phase 2 was carried out to confirm that these conclusions held in actual data.

5.5 Potential implications of IFRS 16 on residences and the level of EBITDA for MSI

5.5.1 The International Financial Reporting Standard (IFRS) 16 considers leased arrangements where the right to use an asset should be recognised as an asset on the balance sheet of the lessee where certain conditions are met. It introduces a single lessee accounting model and requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months unless the underlying asset is of low value. A lessee is required to recognise a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments.[27]

5.5.2 Case Studies 2, 3 and 4 will be impacted by IFRS 16, as in these case studies, no asset is currently recognised on the balance sheet. IFRS 16 would require an asset to be recognised as, in these cases, the institution has a right-of-use asset representing its right to use the underlying leased asset. Therefore, lease accounting would impact the calculation of EBITDA for MSI. Detail can be found in Table 25.

5.6 Phase 2 approach

5.6.1 Phase 1 conclusions suggested that there might be a distortion to EBITDA for MSI as a result of residences arrangements. Phase 2 of the analysis provides further advice on Recommendation 10, building on the advice provided in Phase 1 by incorporating residences data from HE institutions to assess whether residence agreements are materially impacting the level and allocation of MSI.

5.6.2 The approach taken is to analyse data from institutions to test whether residences have a distorting effect on the MSI.

i. A data collection template was designed and an initial version of the data collection template was tested with three institutions.

ii. Feedback was incorporated into a revised template that was sent out to institutions via the Office for Students on our behalf.

[27] See IFRS (2024) *IFRS 16 Leases.* Available here

iii. Submissions from institutions were collated and data cleaned for ease of comparison and analysis between the different residences arrangements. The data collected is presented in Annex B. It was designed to capture the line items associated with residences that feed into the EBITDA for MSI calculation as well as understand the portfolio of residence arrangements and occupancy per institution for analysing the magnitude of the impact on EBITDA for MSI. The survey also requested thoughts from the institutions on the current impact of residences arrangements in TRAC.

iv. A 'Residences EBITDA for MSI' was calculated for the selected categories of residence arrangements and considered the impact on both the level of EBITDA for MSI and its allocation between Teaching, Research and Other.

5.6.3 The analysis further supports the three questions posed in Section 5.1.

Do residency arrangements impact the level of EBITDA for MSI, and is this commensurate with the risk assumed?

5.6.4 If the underlying economic cost is not affected by residence arrangements, MSI differences should not be seen. We gathered data from institutions across a selection of residences arrangements to model the impact that different arrangements have on EBITDA for MSI.

Do residency arrangements distort the allocation of EBITDA for MSI to Teaching and Research?

5.6.5 Phase 2 considers whether the allocation is unduly distorted as a result of residences expenditure, using institution level data. This analysis considers if including residences expenditure in Other will result in any distortion to the allocation of EBITDA for MSI to Teaching and Research, compared to a base case of no residences.

What adjustments to the MSI calculation may be necessary, and what data would be required?

5.6.6 Based on our findings from the above two questions, analysis was carried out on TRAC summaries using institution-level data to understand the impact of our proposed recommendations.

5.7 Phase 2 residences arrangement categorisation and survey responses

5.7.1 Below are the types of residences arrangement used in this analysis. These differ from the illustrative examples used in Phase 1, as they were designed to cover the different accounting treatments that would impact EBITDA. They are compared with a base case of no residences.

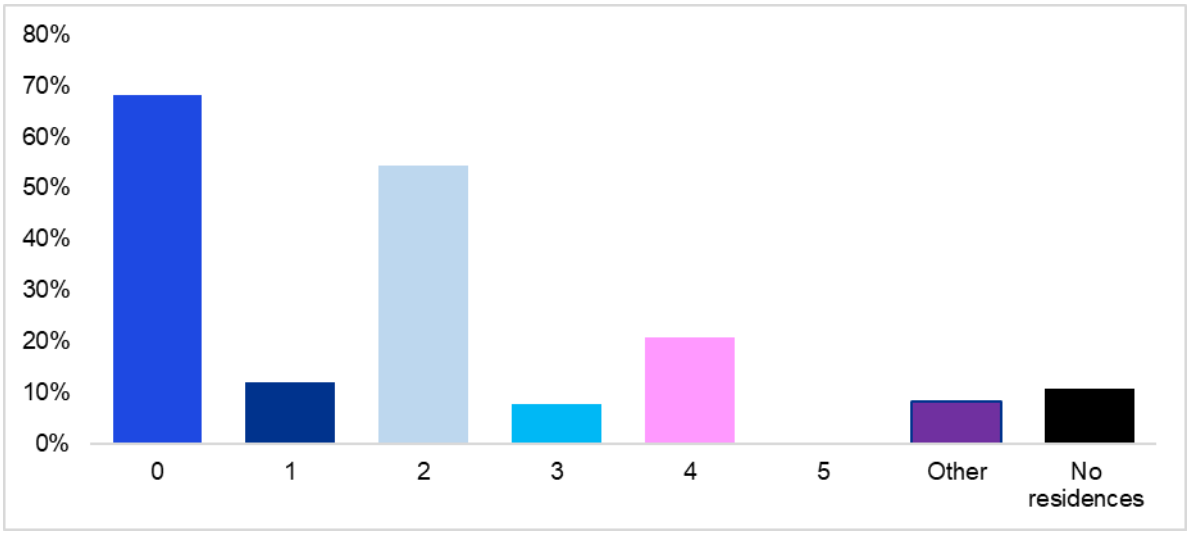
Table 7: Description of residences arrangements

Arrangement type		Description
0	**Owned residences**	Arrangements that fit under this category are where the institution owns the residence buildings outright. This arrangement includes residence buildings that have been purchased using any arrangement of financing (out of cash or loan).
1	**Accommodation operated by a third party (no occupancy guarantee)**	Arrangements that fit under this category are where the residences are owned and operated by a third party, and the institution may pay a fee for the service or may link students with residences. The institution provides no guaranteed occupancy levels outside the annually agreed student rental arrangements.
2	**Operating lease and rental agreements (including nomination agreements)**	Arrangements that fit under this category are where the institution holds an operating lease for the residence building. For example, rental agreements, where the third party direct lets their owned accommodation to the institution and there is a nomination agreement (a contract between the institution and the third party accommodation provider for the institution to guarantee a minimum number of students each year for a specified period).
3	**Arrangement where the institution has financial interest in the third party operating the residence**	The third party operates and owns the asset as per types 1 or 2. The institution has a financial interest in the third party (for example a joint venture or profit sharing agreement) and therefore recognises investment income.
4	**Arrangement where the institution must recognise the asset on the balance sheet despite not owning it**	Arrangements where the institution must recognise the asset on the balance sheet, despite not owning it, such as under a service concession arrangement. For example, sale and leaseback arrangements, finance leases or residences operated by a third party with assets returned to the institution at the end of a contract term for nil consideration.
5	**Housing Association leaseback**	Arrangements that fit under this category are where the institution has a leaseback from the housing association for new halls. The institution may make a monthly payment for this lease.
Other	**Other**	Any other arrangement that is not covered by the above categories.

5.7.2 We have included ‘Other’ in the following analysis for reference. However, due to the individual nature of the arrangements included within this residence type, it is not possible to apply considerations across the type. As such, no conclusion can be reliably made from the results of this type.

5.7.3 Overall, we received data submissions from 47 institutions. Figures 3 and 4 give a breakdown of the residences arrangement types in the responses received.[28] See Annex B for a detailed breakdown of the responses and spread of arrangements.

Figure 3: Percentage of institutions having each arrangement type



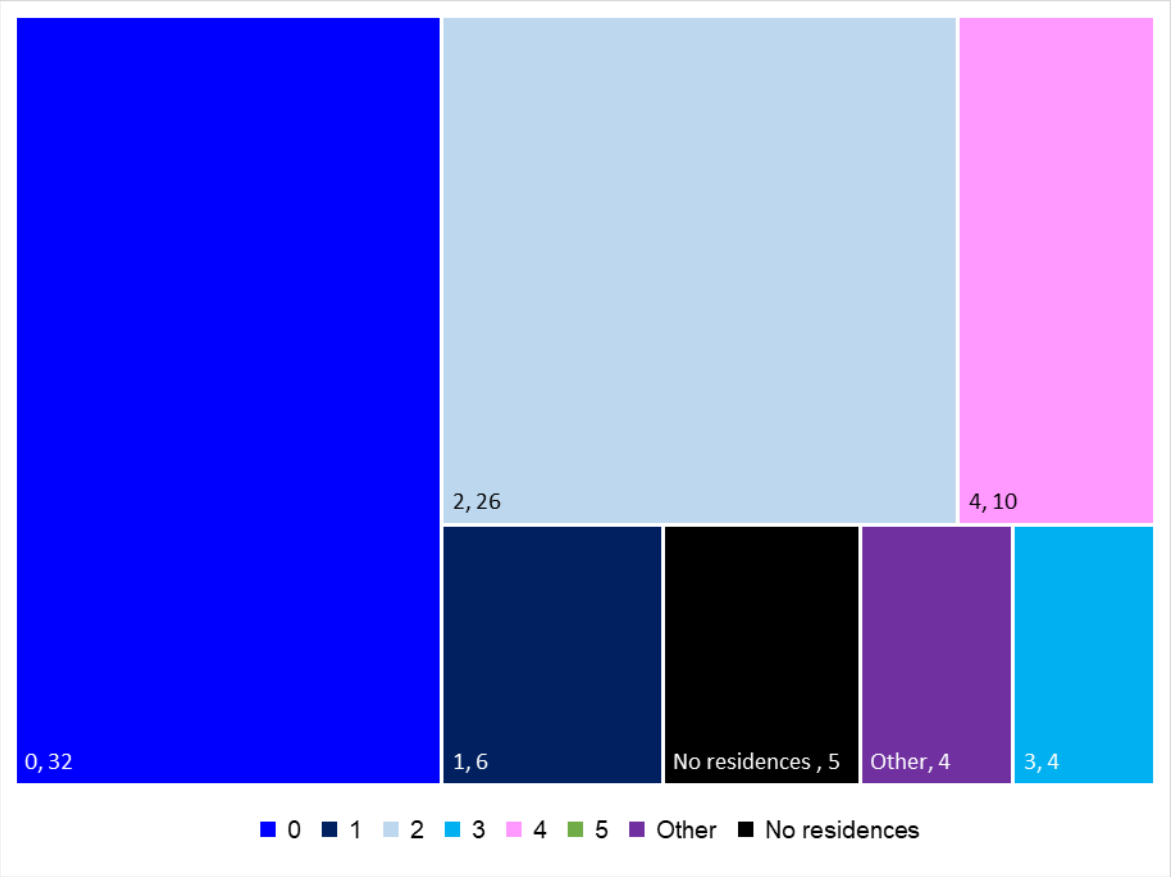
i. Arrangement types 0 and 2 have the most data points within the data submissions.

ii. We received no submissions with type 5.

iii. Type Other contains unique arrangements that do not fit in any category and so have not been analysed in detail.

[28] Note that an institution may have more than one kind of residency type.

Figure 4: Relative number of data points for each arrangement type



5.7.4 As part of the data gathering activity, we asked the following two questions to institutions to understand their current views on the impact of residences in TRAC:

i. Are your residence arrangements something you have previously considered in relation to their impact on your TRAC return and do you have a view on whether these distort funding arrangements?

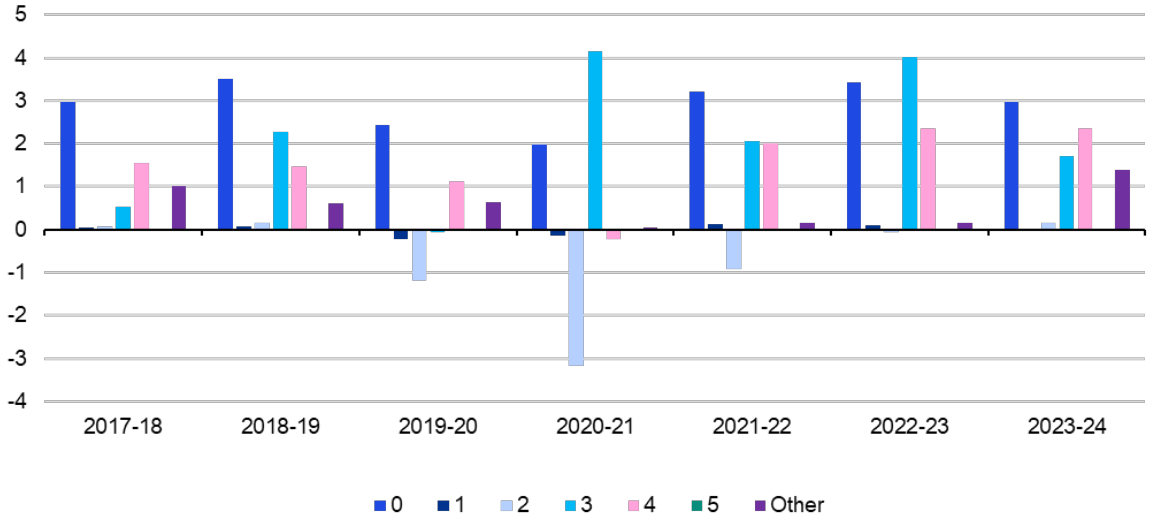
ii. Do you have a view on a better way to account for residence arrangements?

5.7.5 Question 1 received 21 responses. Opinions were mixed, with some institutions believing no distortion to be present, some considering that residences may result in a distortion, and others having already taken actions to reduce any potential distortion. Nine responses were received to Question 2. While a couple of responses noted that no changes are required, the majority (66%) of responses stated that residence arrangements should be identified as a separate activity in TRAC. Full (anonymised) responses are presented in Annex B.

5.8 Impact of residences arrangements on the level of EBITDA for MSI

5.8.1 We calculated a 'Residences EBITDA for MSI' on a per room basis and analysed it across different arrangement types and years. See Fig. 5. Per room analysis was carried out so that the size of institution would not distort the results. These are compared against the counterfactual of no residences, set with a Residences EBITDA for MSI of zero.

Figure 5: Average Residence EBITDA for MSI per room by arrangement type (£000s)



5.8.2 The analysis suggests that different residency arrangements can result in significantly different levels of EBITDA for MSI. These results are generally consistent across TRAC peer groups (see Annex G.2.1).

5.8.3 A clear pattern can be seen over the Covid-19 period for type 2. Results for the Covid-affected years 2019/20, 2020/21 and 2021/22 show a significant negative for type 2, with other arrangements less impacted. Where institutions have rental arrangements (often with nomination agreements) and were not able to fill rooms, they saw significant losses. This shows how such events may disproportionately impact EBITDA for MSI for specific residence arrangements. We note that type 3 sees a significant spike in 2020/21. This results from a single outlier data point that is not illustrative of the trend, and may be erroneous. Table 9 shows the materiality of these figures excluding the Covid period for comparison.

5.8.4 Figure 5 excludes data from two institutions so as not to distort the results: (i) one institution incurred significant expenses for remedial works, (ii) the other has not been included as they were unable to identify average occupancy rate during the period 2019 - 2021 due to the impact of Covid. Sensitivity analysis on these removed institutions was carried out and equivalent graphs with these institutions included are presented in Annex G.3.

5.8.5 In consideration of the materiality of Residences EBITDA for MSI, Table 8 shows the total Residences EBITDA for MSI (£000s) per arrangement type for each peer group, averaged across the years of study. Table 9 shows the same data averaged across non-Covid-affected years. This is the value of EBITDA for MSI (within the reported figures) that is attributed to residences per arrangement and per peer group. Arrangement types 0 and 4 are the most material.

Table 8: Materiality of Residences EBITDA for MSI for the institutions that submitted data, per peer group, averaged across all years of study (£000s)[29]

Type	Peer group						
	A	B	C	D	E	F	Total
0	9,951	8,811	0	3,643	2,385	1,455	26,245
1	(35)	(12)	613	239	0	0	805
2	34	269	(1,273)	(253)	(281)	(1,033)	(2,538)
3	3,347	4,255	0	0	0	0	7,602
4	6,670	2,844	(41)	(154)	183	670	10,171
5	0	0	0	0	0	0	0
Other	0	2,695	0	90	0	0	2,785
Total	19,966	18,862	(702)	3,566	2,287	1,092	45,070
	2.44%	10.41%	-0.63%	2.01%	1.85%	13.54%	3.17%

[29] To illustrate the materiality of the total Residences EBITDA for MSI (calculated for the 47 institutions that responded to the data request), percentages show each figure as a proportion of the total six-year average EBITDA for MSI for the 47 respondents reported in the 2020/21 TRAC summaries (of which the six-year average aligns most closely with the averages used in this study). Years of study for the level of EBITDA for MSI analysis are 2017/18 to 2023/24.

Table 9: Materiality of Residences EBITDA for MSI for the institutions that submitted data, per peer group, averaged across non-Covid affected years (£000s) [30]

Type	Peer group						
	A	B	C	D	E	F	Total
0	10,748	10,220	0	4,305	2,582	1,640	29,496
1	127	(21)	550	272	0	0	928
2	852	1,034	(548)	(107)	(89)	(358)	784
3	3,441	4,142	0	0	0	0	7,583
4	7,446	3,143	4	265	205	814	11,876
5	0	0	0	0	0	0	0
Other	0	3,207	0	86	0	0	3,293
Total	22,614	21,724	6	4,821	2,698	2,097	53,961
	2.75%	11.47%	0.01%	2.64%	2.11%	27.03%	3.78%

5.8.6 A comparison of the above tables shows that the effects of Covid are only significant as regards arrangement type 2.

5.8.7 The principles outlined in Section 3.23.2 suggest that the level of margin should be commensurate to the level of risk incurred for each residence type. A full risk assessment of each of the residences arrangements analysed is given in Table 10.

[30] To illustrate the materiality of the total Residences EBITDA for MSI (calculated for the 47 institutions that responded to the data request), percentages show each figure as a proportion of the total non-Covid affected average EBITDA for MSI for the 47 respondents reported in the 2020/21 TRAC summaries (of which the average aligns most closely with the average of the non-Covid affected years in this study). Covid affected years were 2019/20, 2020/21, 2021/22.

Table 10: Risk assessment of different residences arrangement types

Type		Risk assessment
0	**Owned own residences**	Institution incurs occupancy risk as well as all maintenance spend and operating expenditure. There may also be finance risk exposure where the institution has taken out a loan to fund the residence.
1	**Accommodation operated by a third party (no occupancy guarantee)**	This type carries the lowest risk exposure to the institution, with no ownership of assets and no occupancy guarantee. Rental income and associated expenditure are remitted to the operator, and no asset or liability is held on the institution's balance sheet.
2	**Operating lease and rental agreements (including nomination agreements)**	With a rental agreement (operating lease) or nomination agreement, the institution incurs all operating expenditure and takes on occupancy risk. However, the institution is not required to cover maintenance spend. We expect this type to carry higher risk than type 1, but lower risk than type 0.
3	**The institution has financial interest in the third party operating the residence**	The institution has a shareholding in a third party. The third party takes on void and occupancy risk, as well as incurring maintenance and operating spend (as per type 0). Therefore, the institution is exposed to this risk indirectly and we would expect the institution to be compensated for this risk in a similar way to type 0 (or perhaps more limited, dependent on the % shareholding). EBITDA for MSI recognises the share of surplus/deficit in the joint venture or associate.
4	**The institution must recognise the asset on the balance sheet despite not owning it**	We would expect the institution to be exposed to financing and occupancy risk, but with lower overall risk than type 0 as the institution does not own the asset. Depreciation may not be recognised where service concessions arrangements are followed, as one institution was advised.
5	**Housing Association leaseback**	We would expect the risk exposure for type 5 to be similar to type 4. No respondents have type 5 residences arrangements.
Other	**Other**	Risk assessment for Other arrangements should be considered on a one off basis. One arrangement is removed due to insufficient data points.

Figure 6: Relative risk of different arrangement types

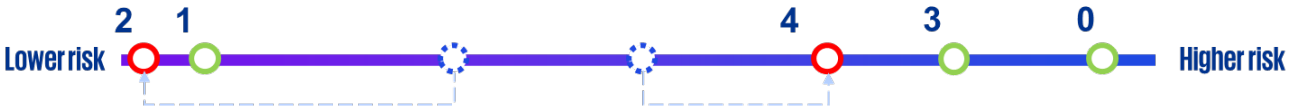
5.8.8 Table 11: Results of Residence EBITDA analysis for each type shows the results of our residences EBITDA analysis for each arrangement type. This is calculated as operating revenues associated with residences less operating expenditure associated with residences (excluding depreciation). We consider Residences EBITDA for MSI against a 'base case' of an institution without any residences, which would have a Residences EBITDA for MSI of zero.

5.8.9 The results, illustrated by Figure 7, show the distortion in the level of EBITDA for MSI calculated from the submitted data.

Table 11: Results of Residence EBITDA analysis for each type (£000s)

Type	EBITDA[31]	Is the level of EBITDA distorted/commensurate to the risk?
0	2.931	As a base case, this appears in line with the principles of allocation based on the underlying drivers of risk and return. In comparison to those with no residence arrangements, institutions are compensated for the risk of owning and operating assets.
1	(0.003)	The result is in line with the principles of allocation based on the underlying drivers of risk and return. We expect a value close to zero, as we expect any income and expenditure associated with this arrangement type to be minimal.
2	(0.708)	The low level of Residences EBITDA for MSI is driven by significant losses in the Covid period as a result of unrecoverable rental and nomination agreement costs, which results in a distortion to the level of EBITDA for MSI. Absent these exceptional costs, we would expect EBITDA for MSI for type 2 to be higher as a result of the risk exposure of these contracts.
3	2.096	Under this arrangement type, the third party (joint venture or associate of the institution) receives all income and incurs all costs of operating the residence. The institution's share of the surplus/deficit of the third party is added to surplus/deficit in calculation of EBITDA for MSI. Therefore, the indirect risk that the institution is exposed to through its shareholdings should be recognised in the EBITDA for MSI calculation. The level of Residences EBITDA for MSI is similar to type 0, which is commensurate to this risk.
4	1.515	Operating expenses effectively flow through as financing cost, below the line of (so the costs are not recognised in) EBITDA, instead of above the line of EBITDA as per type 0. This results in a higher-than-expected EBITDA for MSI and is not in line with principles of allocation based on underlying drivers or risk and return.
5	0.000	No respondents have type 5, so no data available.
Other	0.573	N/A

Figure 7: Distortion in relative risk of different residences arrangement types



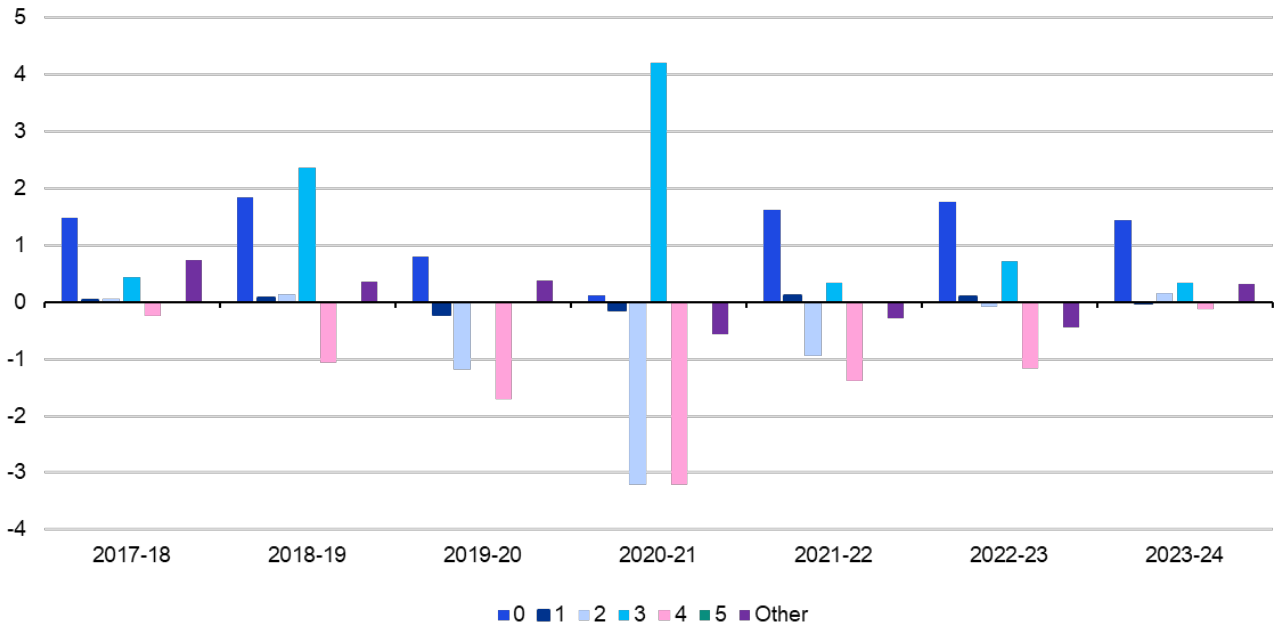
5.8.10 The results of our analysis of institutions' data on residences shows that some residences arrangement types do distort EBITDA for MSI for the sample of institutions that submitted data:

[31] Average Residences EBITDA for MSI per room across years of study

i. **Type 2** (rental and nomination agreements): Under these agreements, the institution takes on occupancy risk. Should occupancy fall significantly, the institution may be exposed to significant losses. This occurred during the covid period and led to a significant negative EBITDA, which distorts the overall picture of EBITDA for MSI for this arrangement type.

ii. **Type 4** (recognising the asset on the balance sheet despite not owning it): Operating expenditure is effectively brought below the line of (so the costs are not recognised in) EBITDA as the institution incurs finance charges where the third party covers operating expenditure. This means that EBITDA is higher than expected as expenditure is not recognised in EBITDA for MSI. This suggests that where an institution recognises an asset on the balance sheet despite not owning it and the institution incurs finance charges rather than operating expenses, there is a distortion to Residences EBITDA for MSI as this leads to a higher reported EBITDA for the university which is not aligned to any increase in the risk profile for the institution.

Figure 8: Average residences Net profit per room, comparison by type (£000s)



Equation 1: Formula calculating residences net profit

$$Residences\ net\ profit = Residences\ EBITDA\ for\ MSI\ - depreciation\ - net\ interest\ charges$$

5.8.11 Comparing Residences EBITDA for MSI to Residences net profit, Fig. 8, shows that when taking account of all income and expenditure (including depreciation and finance charges), profitability for all arrangement types decreases somewhat, and the results for type 4 are more in line with expectations.[32] This informs an adjustment that could be made to reduce the distortion caused.

5.8.12 The following potential adjustments could be made to minimise the distortion to the level of EBITDA for MSI:

i. Consider adjustments to type 2 for exceptional losses resulting from extenuating circumstances such as Covid.

ii. For type 4, make adjustments for residences interest expenses to bring associated expenses above the line of EBITDA. This may require residences expenditure to be recognised separately as a subcategory of Other, consistent with suggestions made by institutions in response to survey questions (see Annex B).

5.8.13 These adjustments will require more granular data on residences to be collected as part of TRAC returns. Table 12 shows the results of our Residences EBITDA analysis, with adjustments made to the calculation to reduce distortions.

[32] We note that type 3 sees a significant spike in 2020/21**.** This results from a single outlier data point that is not illustrative of the trend and may be erroneous.

Table 12: Results of revised Residence EBITDA analysis for each type (£000s)

	Adjustments made to the Residences EBITDA calculation	EBITDA (per room basis)[33]	Revised EBITDA[34]
0	No adjustments required	2.931	2.931
1	No adjustments required	(0.003)	(0.003)
2	Taking an average of the Residences EBITDA that excludes the Covid affected years (2019/20, 2020/21 and 2021/22) results in an EBITDA figure that is in line with expectations given the risk profile. Therefore, this arrangement becomes distortive in exceptional times of unexpected low occupancy and losses. Making adjustments for nomination/occupancy guarantee fees in these years may be an alternative approach to reducing this distortion. This would require more granular data on the cost of these fees so they may be adjusted out.	(0.708)	0.079
3	It is not clear from the data submissions whether all institutions have included the share of surplus/deficit in the third party (joint venture or associate) in income/expenditure. This also cannot be ascertained from the TRAC returns. No adjustments have been made at this time to feed into this draft report. However, the results seem in line with expectations as regards risk.	2.096	2.096
4	Treating finance costs as operating expenditure, bringing them 'above the line' of EBITDA, reduces the level of Residences EBITDA below that of type 0. The revised figure aligns with the risk profile of the arrangement.	1.515	0.340
5	No respondents have type 5, so no data available.	0.000	0.000
Other	N/A	0.573	0.573

Figure 9: Adjusted level of EBITDA for MSI in relation to risk

[33] Average Residences EBITDA for MSI per room across years of study

[34] Revised average Residences EBITDA for MSI per room across years of study

5.8.14 Therefore, we recommend making the following adjustments in the context of reducing the distortion to the level of EBITDA for MSI as a result of residences arrangements.

i. Make adjustments for exceptional losses as a result of rental and nomination agreements in extenuating circumstances, such as the Covid impact on type 2.

ii. For the purposes of residences, make adjustments for interest expenses to bring expenses above the line of EBITDA in the case of type 4. This may require residences expenditure to be recognised separately in a subcategory in Other. A variation of this adjustment was heavily suggested by the survey responses from the institutions (G.1.1).

5.8.15 Table 13 shows the materiality of these adjustments on the total Residences EBITDA for MSI. Overall, making these adjustments has approximately a ± £3m impact on total EBITDA for MSI for the institutions that submitted data. The adjustments have varying impact across peer groups as a result of the spread of arrangements across the peer groups.

Table 13: Impact of adjustments on total EBITDA for MSI, per peer group for the institutions that submitted data (£000s)

	Total Residences EBITDA for MSI over full years before adjustments made (as per Table 8)	Adjustment to type 2 (as per recommendation i) averages type 2 over non-Covid affected years to remove distortion [35]	Adjustment to type 4 (as per recommendation ii) treats type 4 finance costs as operating costs, including them in EBITDA
A	19,966	20,784	19,966
B	18,862	19,626	14,770
C	(702)	23	(702)
D	3,566	3,712	3,566
E	2,287	2,479	1,069
F	1,092	1,767	930
Total	45,070	48,391	39,599

[35] This shows the impact of making a potential adjustment for type 2 where there is not sufficiently granular data to remove the exceptional costs associated with nomination or rental agreements. With more granular data reported in TRAC, this distortion may be corrected by removing the exceptional cost from EBITDA, instead of the approach presented.

5.8.16 These adjustments will require more granular data on residences to be collected as part of TRAC returns. Adjustments for residences costs should be considered based on a 'base case' of an institution without any residences and should consider the comparative risk of the arrangement.

5.9 Impact on the allocation of EBITDA for MSI

5.9.1 In TRAC, all income and expenditure is attributed to three core activities. EBITDA for MSI is also split between these three categories. EBITDA for MSI is allocated to each category based on the percentage of TRAC expenditure allocated to each category, as illustrated in Fig. 10.

Figure 10: How EBITDA for MSI is allocated between different categories

	Teaching	Research	Other	Total
TRAC expenditure in each category	T	R	O [36]	X
Informs allocation %	T / X	R / X	O / X	100%
Is applied to total EBITDA for MSI to get the value of EBITDA for MSI allocated to each category	Total EBITDA for MSI = Y [37]			
	(T/X) * Y	(R/X) * Y	(O/X) * Y	Y

5.9.2 The total TRAC expenditure + EBITDA for MSI allocated to each activity informs calculated charge-out rates that are accepted by the UK Research Councils as an institution-specific basis of costing research bids and are used by institutions in forecasting the full costs of research projects and informing pricing. See 0 for further detail. Therefore, where a higher allocation of EBITDA for MSI is made to each activity as a result of residences, the total economic costs for charge-out purposes are increased without any fundamental changes to the economic cost of teaching and research.

5.9.3 There are three key results we would expect to conclude from the data if there were no distortion to EBITDA for MSI as a result of residences arrangements.

[36] The TRAC expenditure within Other and the Total EBITDA for MSI are impacted by residences.

[37] Any expenditure on residences increases O. If Residences EBITDA for MSI is positive, Y increases.

i. Residences decrease the percentage allocation to Teaching and Research. Allocation of EBITDA for MSI is currently based on TRAC expenditure. Residences expenditure sits within Other, therefore we expect that the percentage allocation to Other will increase with positive residences expenditure. The higher the level of expenditure, the larger the impact.

ii. The absolute value allocated to Teaching and Research should remain constant. Theory of risk suggests that the absolute margin allocated to Teaching and Research should be independent of residences arrangements as the increased risk and TRAC expenditure is being recognised in Other and no change is being made to Teaching and Research. Therefore, we should not see any increase in the value of EBITDA for MSI as a result of residences arrangements allocated to Other and no additional value allocated to Teaching and Research.[38]

iii. The impact of residences on the allocation should be consistent across arrangement types. The impact of residences on the allocation of EBITDA for MSI should be consistent, only driven by the differences in the level of EBITDA for MSI as seen in Section 3.

5.9.4 To illustrate this, consider an illustrative example showing the distortion to the allocation of EBITDA for MSI as a result of residences arrangements, Table 14.

Table 14: Example of distortion to allocation of EBITDA for MSI before and after including residences

	TRAC expenditure before residences	Allocation %	EBITDA for MSI allocation before including residences	TRAC + residences expenditure	Allocation %	Revised EBITDA for MSI allocation when including residences
T	20,000	40%	2,000	20,000	36%	2,727
R	20,000	40%	2,000	20,000	36%	2,727
O	10,000	20%	1,000	15,000	27%	2,045
Total	50,000	100%	5,000	55,000	100%	7,500

[38] A distortion will occur if, alternatively, there is a change in the value of EBITDA for MSI allocated to Teaching and Research as a result of including residences in the calculation. This may arise, for example, as a result of residences activities earning a higher margin than Teaching and Research activities, leading to a disproportionately higher overall EBITDA for MSI. This will unduly impact the charge out rates for Teaching and Research.

5.9.5 Under this example, the profitability of residences is assumed to be higher than for other activities (we understand this to typically be the case for institutions that own their own residences):

i. We assume that non-residences activities have an EBITDA of £5,000 on expenditure of £50,000, for an EBITDA margin of 10%.

ii. By contrast, we assume that residences have an EBITDA of £2,500 on expenditure of £5,000, an EBITDA margin of 50%.

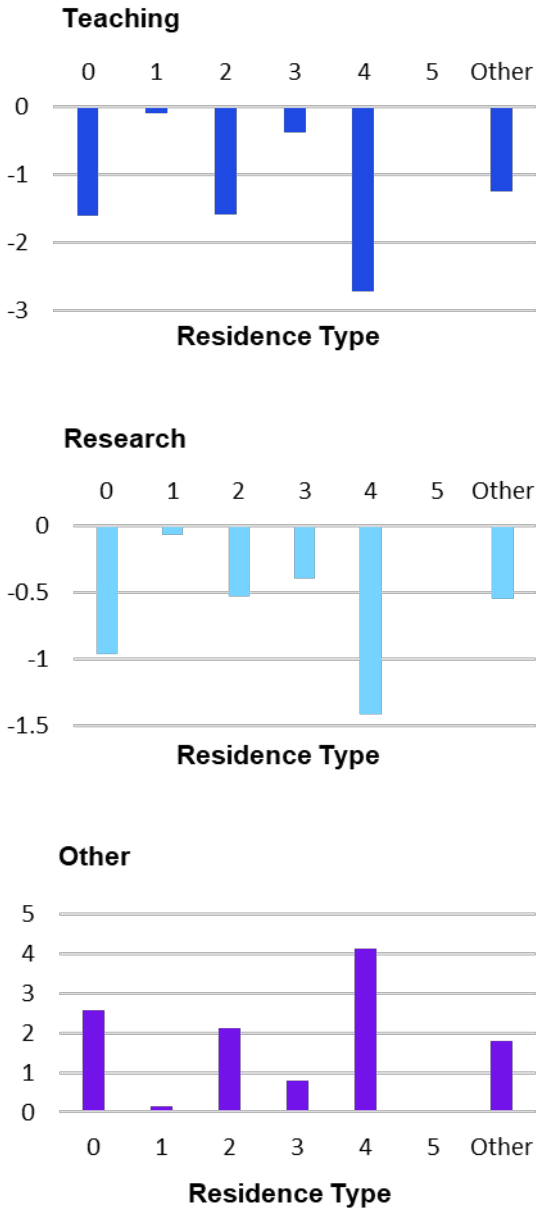
5.9.6 Including residences therefore increases the total EBITDA to be allocated to £7,500. From an economic perspective, based on the allocation principles discussed in the previous report and presented in Annex D, we would expect the entire additional £2,500 of 'Residences EBITDA for MSI' from residences to be allocated to Other. However, as can be seen from the table, a portion of it is allocated to Teaching and Research (+£727 for each), despite no extra risk having been taken on in either of these categories.

Residences decrease the percentage allocation to Teaching and Research

5.9.7 The results of our empirical analysis confirm that residences decrease the percentage of MSI allocated to Teaching and Research. The graphs in Figure 11 show the average impact of including residences arrangements in TRAC on the percentage allocation of EBITDA for MSI to each TRAC category, measured in absolute percentage point difference, per residences type, averaged across the five-year period for which TRAC data is available.

5.9.8 As expected, all expenditure on residences is recognised in Other and the percentage allocation of EBITDA for MSI to Other is increased, where the allocation to Teaching and Research is decreased, as compared to the counterfactual of no residence arrangements.

Figure 11: Graphs illustrating the change in percentage point allocation to Teaching, Research and Other, per residences type, averaged across the years of study[39]



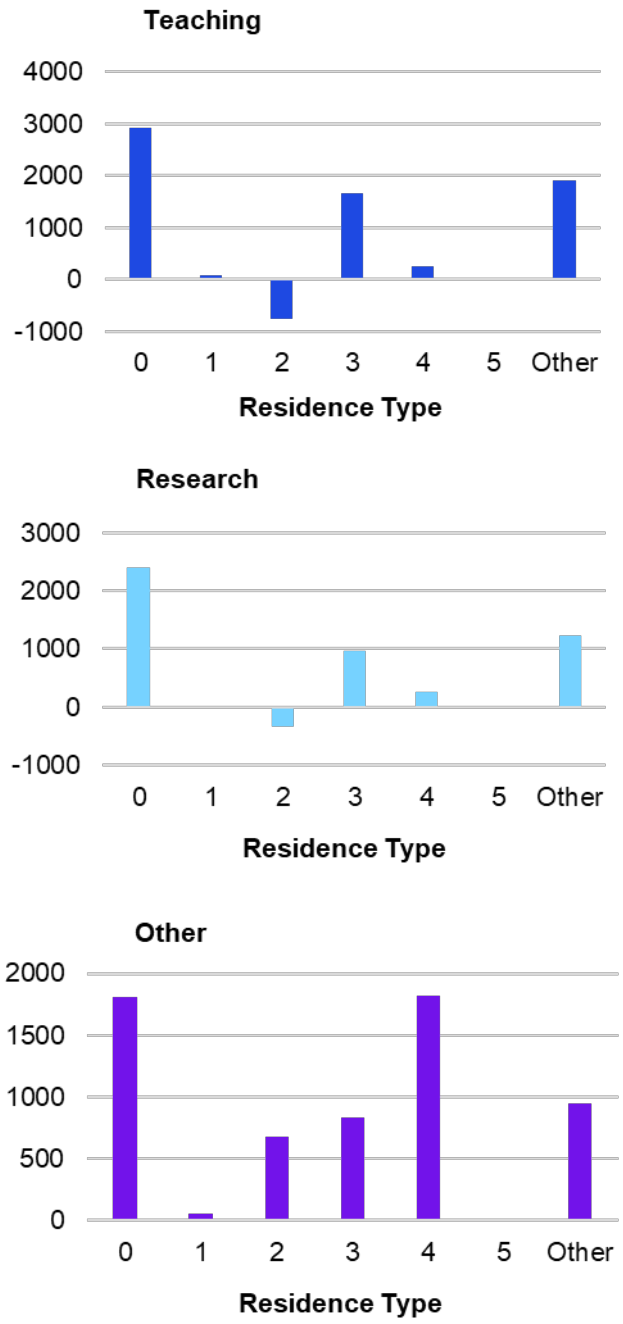
5.9.9 Type 1 sees the lowest impact, which is in line with the principles of the MSI as the arrangement involves a low level of expenditure. Types 0, 2, and 3 are largely consistent. This aligns with expectations that the effect on allocation is consistent across arrangements and these types involve similar total expenditure.

[39] The years of study for allocation analysis are 2017/18 to 2021/22, the most recent year for which TRAC data is available.

5.9.10 The average result for type 4 is somewhat distorted by a data distortion in 2020/21 and 2021/22. This is driven by an institution that only had the arrangement in these years. This type increases depreciation and interest charges which feed into the TRAC expenditure, increasing the allocation to Other.

The absolute value allocated to Teaching and Research does not remain constant

Figure 12: Graphs illustrating the change in allocation to Teaching, Research and Other per residences type, averaged across the years of study (£000) [40]



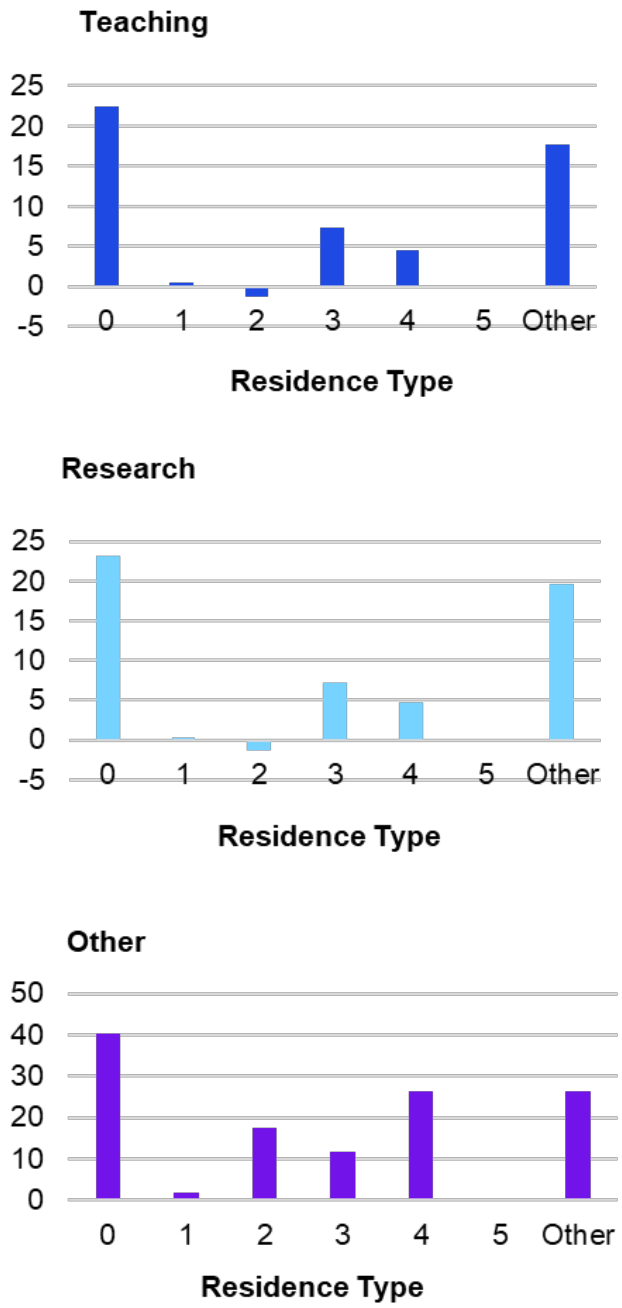
[40] The years of study for allocation analysis are 2017/18 to 2021/22, the most recent year for which TRAC data is available.

5.9.11 The results presented in Fig. 12 show a distortion in the value allocation of Residences EBITDA for MSI. Residences arrangements increase overall EBITDA for MSI, increasing the value allocated to Teaching, Research and Other. Figure 12 shows the average impact on the allocation of EBITDA for MSI to each category, measured in absolute difference in EBITDA value (£000s), per type, averaged across the five-year period for which TRAC data is available.

5.9.12 The analysis shows that the absolute margin allocated to Teaching and Research is not independent of residences arrangements and therefore the allocation is distorted as a result of residences arrangements. In some cases, the impact on margin allocated to Teaching and Research is greater than that allocated to Other.

5.9.13 As residence types 1, 2 and 4 have a lower impact on EBITDA for MSI (other than in the Covid period), they show a limited impact on the margins for Teaching and Research in most years. Types 0, 3 and Other show significant distortions on the allocation of Residences EBITDA for MSI, driven by the higher levels of EBITDA for MSI for these arrangement types.

Figure 13: Graphs illustrating the percentage change in allocation value (%) to Teaching, Research and Other as a result of residences, per type, averaged across the years of study[41]



Equation 2: Average change in value of allocation

$$Change\ in\ value\ of\ allocation = change\ in\ allocation\ value\ /\ initial\ value\ allocated\ (\%)$$

5.9.14 Equation 2. The results in Figure 13 show that this is a material distortion, with the figures below showing that Residences EBITDA for MSI has a material impact on the EBITDA for MSI allocated to Teaching and Research, with the impact in residences arrangement type 0 (which approximately 70% of institutions hold) and Other being the most significant.

5.9.15 The results indicate that residence arrangements distort the allocation of EBITDA for MSI to Teaching, Research and Other for the sample of institutions that submitted data.

i. The change in percentage allocation of EBITDA for MSI to each category is directionally consistent with expectations (as can be seen in Figure 11).

ii. The absolute value of EBITDA for MSI allocated to Teaching and Research increases with the inclusion of residences (as shown in Figure 12). This is not aligned with expectations that an increase in margin under Other should not have an effect on the absolute margin applied to the other categories, as no changes to risk or expenditure have been made to Teaching and Research. Where the allocation value to Teaching and Research increases, this presents a distortion as it unduly impacts the recovery of fEC and charge-out rates for these categories. This arises as a result of residences activities earning a higher margin than Teaching and Research activities.

iii. This distortion is greatest for residences arrangements type 0, where there is the most significant level of residences EBITDA (as presented in Figure 13).

5.9.16 To minimise the distortion of the allocation of EBITDA for MSI to Teaching and Research, we recommend that residences EBITDA and expenditure is calculated separately from the rest of MSI EBITDA and costs. They can then be allocated directly to a new Residences subcategory within Other (in addition to Other (non-commercial) and Other (income generating)). EBITDA for MSI (excluding Residences) can then be allocated between Teaching, Research and Other (excluding Residences) according to the current methodology.

5.9.17 These suggestions are consistent with suggestions made by institutions in response to survey questions (see Annex B). These adjustments will require more granular data on residences to be collected as part of TRAC returns.

5.10 Other potential issues with residences

5.10.1 Although out of scope for this phase of work, concerns were brought forward by three institutions during the data gathering stage regarding the impact of any revaluation, sale and execution of remedial works of residences assets on MSI. These have potential to distort the TRAC results for institutions and may require further investigation, although we have no data on the scale of this issue.

[41] The years of study for allocation analysis are 2017/18 to 2021/22, the most recent year for which TRAC data is available.

5.10.2 Some institutions highlighted concerns that any revaluation of their residence assets may impact their MSI but did not include the impairment in the submitted data. We have not analysed quantitative impacts of revaluation but there is potential for distortion to occur as:

i. Any increases/decreases in asset value may be recognised in operating income/expenditure. This may distort EBITDA.

ii. Changes in depreciation will not offset this, as they will not feed into EBITDA.

iii. Gains/losses on disposal of fixed assets feed into the TRAC calculation through TRAC expenditure and may distort allocation.

5.10.3 One institution noted that their owned residences are up for sale in 2023/24 and raised concern that this might impact their MSI. This is dealt with in the TRAC calculation by adding back the gain/loss on sale of tangible assets to TRAC income/expenditure in Table A1. This may distort allocation further as it may increase TRAC expenditure in Other.

5.10.4 One institution carried out significant remedial works on their residences in the period of analysis. This expenditure is recognised in the Residences EBITDA for MSI calculation, significantly reducing their MSI. The TRAC return for this institution shows significant deficits in 2020/21 and 2021/22 compared to other years that feed into their EBITDA for MSI calculation, distorting the outcome. It does not align with the MSI principles that EBITDA for MSI be significantly impacted by such an expenditure.

5.10.5 Our recommendation would be to consider carrying out further analysis into the impact of revaluation, sale and remedial works on institutions' EBITDA for MSI. This may involve considering the wider TRAC calculations and the adjustments made for gain/loss on sale of fixed assets. When considering the materiality of the impact of these exceptional items, the principles outlined in Section 3.3 may be applied, meaning that the exceptional income/costs may be excluded from any calculation of EBITDA for MSI.

5.11 Implications and recommendations

5.11.1 Adjustments for residences costs should be considered based on a 'base case' of an institution without any residences and should consider the comparative risk of the arrangement.

Conclusion and recommendation in the context of the level of EBITDA for MSI

5.11.2 The results of our analysis of institutions' data on residences shows that some residence arrangements do distort the level of EBITDA for MSI for the sample of institutions that submitted data under certain arrangements. Adjustments could be made to remove any exceptional losses associated with residences (such as those experienced due to rental and nomination agreements in the Covid period) from the EBITDA calculation and in the case of residences arrangements type 4, finance costs may be considered operating expenditure. This would better align 'Residences EBITDA for MSI' to the relative risk exposure of the arrangement.

Conclusion and recommendation in the context of the allocation of EBITDA for MSI

5.11.3 The results of our analysis of TRAC allocation when adjusting for institutions' residences data shows that residences arrangements distort the absolute value of EBITDA for MSI that is allocated to Teaching and Research. This impact is most material for residences arrangements of type 0, which are held by over 70% of institutions that provided data. This indicates that the issue is material and pervasive. Adjustments to the TRAC allocation for residences costs may be made to recognise residences costs in a separate Other sub-category and calculate a separate Residences EBITDA for MSI.

Implications

5.11.4 Recommended adjustments require more granular data above what is usually reported in TRAC. Going forward, the RFG may want to consider requiring HE institutions to report this information in TRAC, separated out into a Residences EBITDA for MSI that is recognised separately under Other. Any adjustments for residences costs made by individual institutions should be considered based on the treatment of expenditure as compared to a 'base case' of an institution without any residences and consider the comparative risk of the arrangement.

5.11.5 To make the appropriate adjustments to calculate a separate Residences EBITDA for MSI, data specific to residences (such as that collected as part of this study) will be required. This should include all residences income and expenditure (incl. depreciation and finance costs) and investment income from residences joint ventures or associates, as well as the level of any costs incurred in exceptional circumstances, such as the significant costs associated with nomination/occupancy guarantees during the Covid period.

6 Annexes

Annex A: Relevant background

A.1 History of MSI in TRAC

A.1.1 The Transparent Approach to Costing (TRAC) was introduced in 1999. It included adjustments to enable the calculation of the full long-term costs of operation. The adjustments helped to better represent the sustainable cost of activities in order to enable funding to be more reflective of institutions' needs and to prevent university infrastructure and capability from regressing. Initially from 1999 to 2006 there were two cost adjustments used as a proxy to reflect the additional economic costs not fully reflected in reported expenditure:

i. Infrastructure adjustment – based on the insurance value of assets / revaluation costs and allocated based on estates costs.

ii. Cost of capital employed (COCE) adjustment – in part drawn from the method applied by the MoD to commercial defence contractors, based on the risk-free rate of return allowed on non-competitive contracts issued by the MoD.

A.1.1 In 2006, the COCE was subsequently replaced by the return for finance and investment (RFI), based on a newly revised MoD formula.

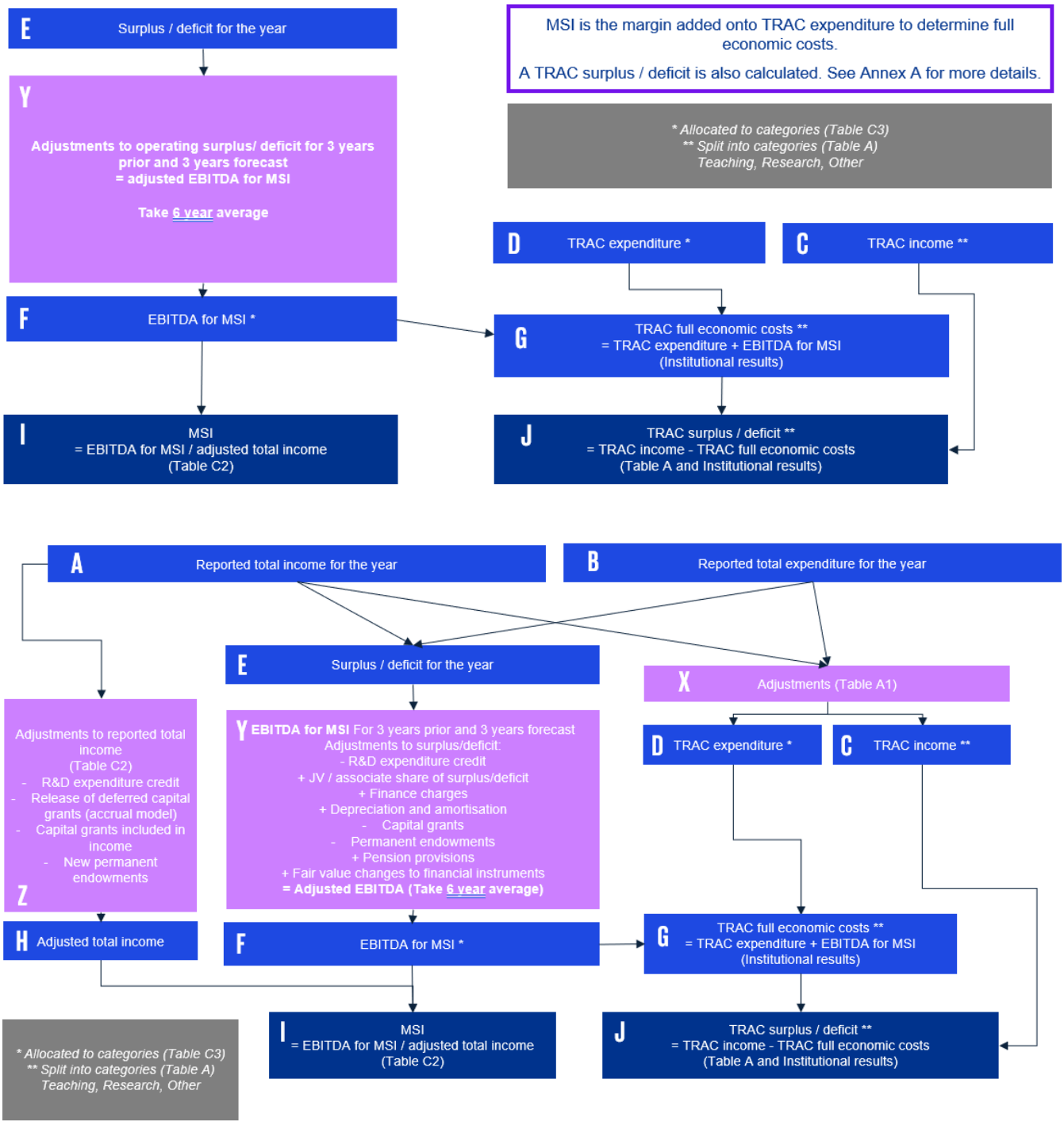
A.1.2 A 2011 FSSG project found that differing corporate strategies and priorities, with different cost bases, investment needs and risk appetites across HE, pointed towards the need for an institution-defined margin for sustainability, reflective of that institution's investment and finance strategy, rather than a purely formulaic approach as per the RFI and Infrastructure Adjustment (IA).

A.1.3 Between 2015 and 2016 all HE institutions adopted the new Statement of Recommended Practice that reflected the new accounting standard FRS 102. To prevent any unforeseen issues in TRAC, institutions used the fEC charge-out rates for Research from the previous year, with additional indexation added.

A.1.4 In 2017, FSSG worked closely with [then] Research Councils UK (RCUK) and the Funding Councils in the development of the MSI and finally recommended its adoption in November 2017 and MSI was used for the first time in the TRAC returns for the year ending 31 July 2017. The MSI was developed based on institutions' EBITDA as a percentage of income. EBITDA was adopted as a widely used measure that is understood and recognised in the sector and wider commercial world. The figures below show the calculation methodology.

A.1.5 At the time of implementation, the FSSG recommended reviewing the MSI after three years and, in recognition of this, the RFG commissioned the 2022 review of the MSI. This review made several recommendations that form the basis of the analysis in this report.

Figure 14: TRAC methodology to calculate MSI [42]



[42] KPMG analysis of TRAC return framework

A.1.2 The BUFDG definition of Adjusted EBITDA takes account of some factors specific to the HE sector.[43] The calculation adjusts for 'exceptional' (material) items disclosed on the face of the statement of comprehensive income. Whilst the line items may be helpful for financial reporting purposes and comparability between institutions and year-on-year, because 'exceptional' items are operating items, it was agreed when MSI was implemented in TRAC that such items should be included when determining an institution's margin for sustainability.

A.1.3 MSI is calculated by reference to the six-year average EBITDA as a percentage of total income for the current year.

A.1.4 The recommendations discussed in this report focus on whether these adjustments should be made in the context of the sustainability adjustment.

Table 15: Adjusted EBITDA calculation

	[Y] Adjusted EBITDA calculation (Table C1)	
	Surplus for the year before other gains and losses and share of surpluses from joint ventures and associates	**E**
+	Share of surplus/deficits from JVs and associates	
+	Finance charges	
+	Depreciation/amortisation (including impairment charges)	
-	Capital grants received (for non-government capital grants and for government capital grants where the performance model is adopted)	
-	Release of deferred capital grants from all sources	
-	New permanent endowments	
+	Staff charges/(credits) arising from pension provisions	
+	Fair value changes to financial instruments	
=	**Adjusted EBITDA for MSI**	**F**

Table 16: Adjusted total income and MSI calculation

	[Z] Adjusted total income calculation (Table C2)	£
	Consolidated total income as per the audited financial statements	
-	Release of deferred capital grants included in income	
-	Capital grants included in income	

[43] British universities finance directors group (2017) *Revised definition of EBITDA for HEIs.* Available here

-	New permanent endowments included in income		
=	**Adjusted total income**	**H**	
	[I] MSI calculation (Table C2)		
	Average adjusted EBITDA for MSI (6 years)	**F**	
	MSI	**F/H**	**I%**

A.2 Derivation of TRAC income and expenditure

A.2.1 A number of adjustments are made to income and expenditure reported in the institutions' consolidated statement of comprehensive income to arrive at TRAC income and expenditure. These are made in Table A1 of the TRAC summaries.

Table 17: Total Income as reported in Consolidated Statement of Comprehensive Income

	[A] Total income as reported in the Consolidated Statement of Comprehensive Income	
+	Gain on disposal of tangible assets	
+	Gain on investment property	
+	Gain on investments	
+	Share of operating surplus in joint venture(s)	
+	Share of operating surplus in associate(s)	
+	Taxation credit	
+	Gain on disposal of tangible assets	
=	**TRAC income**	**C**

Table 18: Total expenditure as reported in the Consolidated Statement of Comprehensive Income

	[B] Total expenditure as reported in the Consolidated Statement of Comprehensive Income
+/-	Minus cost or plus credit attributable to the periodic revaluation of [USS and SAUL] pension scheme liabilities
+	USS and SAUL employer pension deficit contributions excluded from expenditure in financial statements
+	Loss on disposal of fixed assets
+	Loss on investment property

+	Loss on investments	
+	Share of operating deficit in joint venture(s)	
+	Share of operating deficit in associate(s)	
+	Taxation charges	
	Plus surplus or minus deficit attributable to non-controlling interests	
=	**TRAC expenditure**	**D**

A.3 How does the TRAC methodology allocate EBITDA for MSI?

A.3.1 In TRAC, all costs and income are attributed to three core activities. EBITDA for MSI is also split between these three categories. Costs are either attributed directly to the three core activities of Teaching (T), Research (R), or Other (O), or attributed to a fourth activity, Support (S). All Support costs are then attributed to the three core activities. EBITDA for MSI is allocated to each category based on the % of TRAC expenditure allocated to each category. TRAC expenditure is allocated to each category based on a method of activity-based costing. The figures below, taken from TRAC guidance, show how this can be done.

Figure 15: Input data[44]

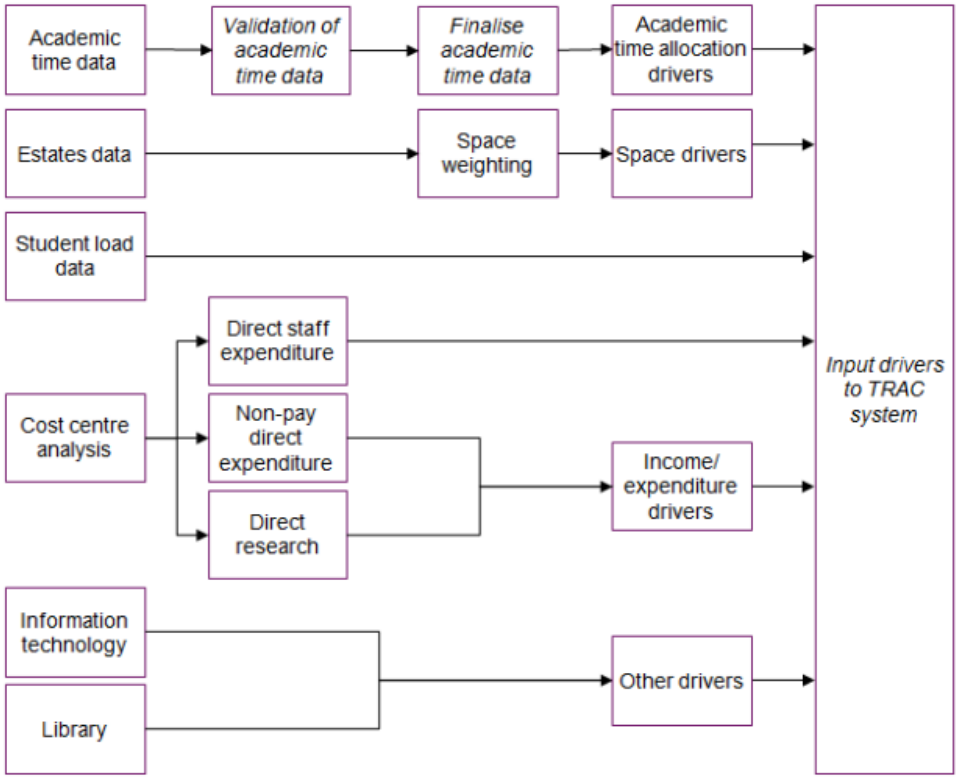
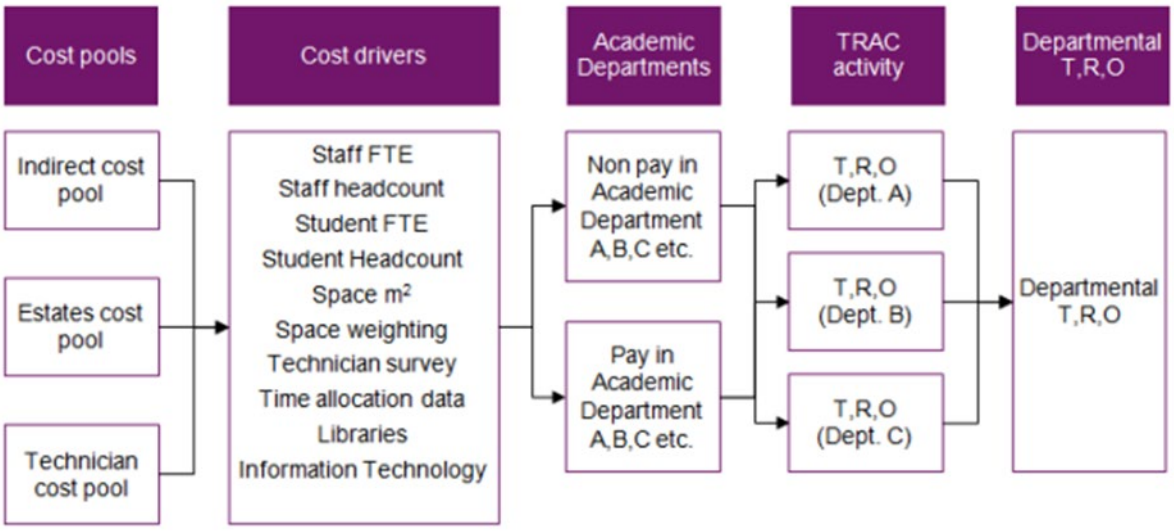


Figure 16: Support cost allocations and charge-out rate calculations[45]



[44] TRAC guidance and FSSG (2016) *'Mind the gap' – Understanding the financial sustainability challenge, A brief guide for senior managers and Governing Body members.* Available here (henceforth "TRAC Guidance")

[45] TRAC guidance

A.4 How does the TRAC methodology allocate EBITDA for MSI?

A.4.1 The costs of academic staff time are directly attributable to teaching. Outreach where teaching is the underlying activity (such as Teaching funded through a Teaching Company Scheme or Knowledge Transfer Partnership). A relevant share of Support costs, incurred both in the academic departments and in the institution's central departments, are also attributed to Teaching. This includes the costs of the support time of academics (scholarship, administration and management) and other Support costs. Publicly funded teaching (PFT) activity is generally considered across the sector as a whole to be fundable, at least in part, from public funds. Non-publicly funded teaching (NPFT) activity is generally considered, across the sector as whole, to be funded wholly from non-public funds.

A.4.2 TRAC follows the definition used by the Higher Education Statistics Agency (HESA) in the HESA Finance record guidance: Research is to include research and experimental development. The following definition of research is taken from the 2015 Frascati Manual: "*Research and Experimental Development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge, including knowledge of humankind, culture and society – and to devise new applications of available knowledge. R&D is a term covering three activities: basic research, applied research and experimental development".*[46] Research can be a specific project, or blue skies/speculative in nature, but for TRAC, research has an external sponsor or is expected to lead to some research output (or PGR training/supervision).

A.4.3 Other income generating activity: activities that generate income or could potentially generate income

i. Consultancy

ii. Other services rendered, including routine testing and non-research clinical trials

iii. Outreach

iv. Work carried out through trading/commercial companies that is not teaching or research

v. Technology transfer work if remunerated through the institution

vi. Residences, catering and conferences

vii. Goods and services sold to students, staff or external customers

viii. Clinical services: where institutions have medical or dental schools

A.4.4 Non-commercial activity

[46] OECD (2015), *Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities*, OECD Publishing, Paris. Available here.

A.5 Background to allocation and research charge-out rates

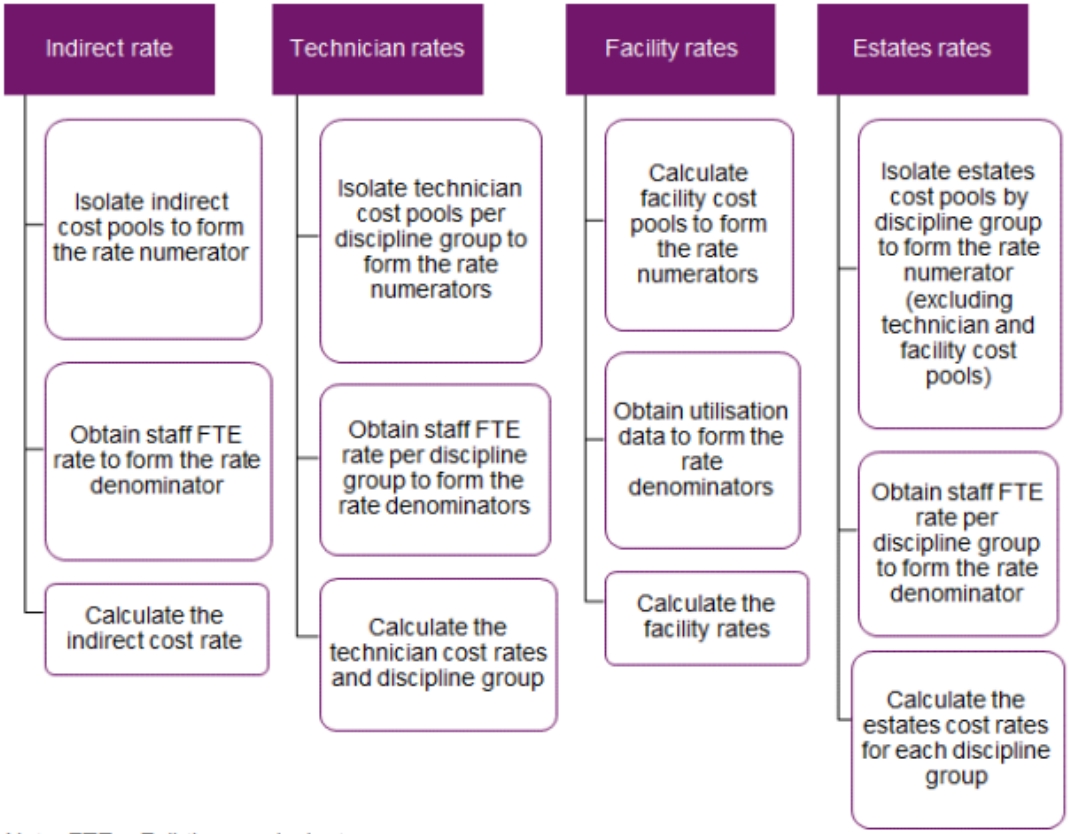
A.5.1 All research grant proposals and fellowship applications submitted are costed on the basis of full economic costs (fEC). If a grant is awarded, research councils should provide funding at 80% of the fEC. Calculated charge-out rates provide an institution specific basis for the research-related elements of indirect costs, estates costs, facilities and equipment, and technicians. These rates are accepted by the UK Research Councils as the only basis of costing research bids and are used by institutions in forecasting the full costs of research projects and informing pricing. There are two principal variables that affect the charge-out rates;

i. The level of costs in the cost pools

ii. The level of research full-time equivalent FTE staff

A.5.2 Therefore, it is important that allocation of MSI to research is accurate.

Figure 17: Research charge-out rates[47]



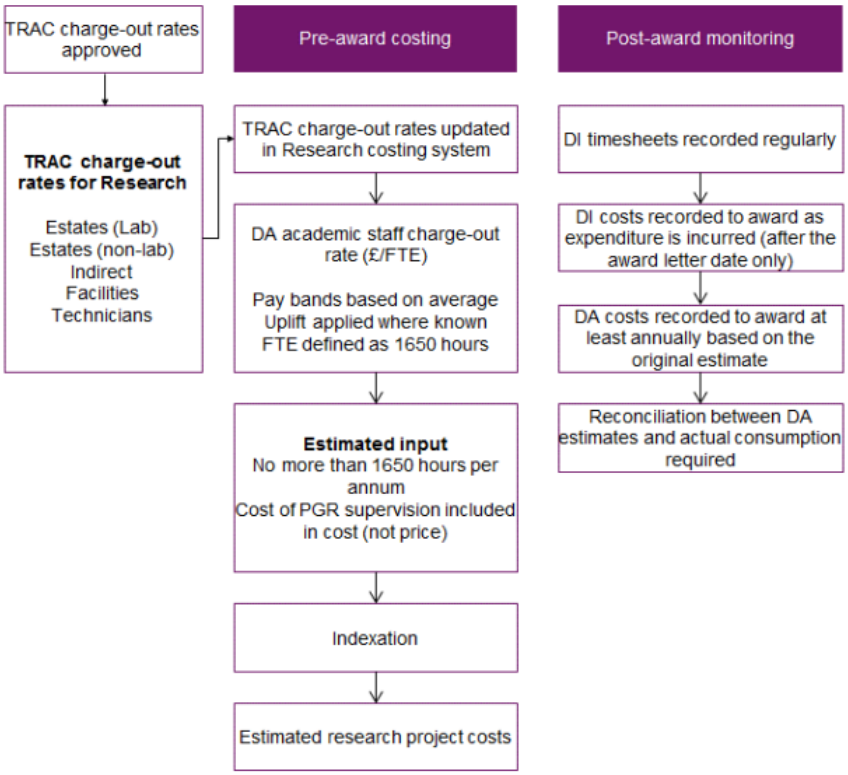
Note: FTE = Full-time equivalent.

A.6 Background to allocation and research charge-out rates

A.6.1 The amount of MSI allocated to Research affects an institution's research charge-out rates. Recommendation 9 considers whether allocation of MSI should reflect estates costs in the context of sustainability and investment.

[47] TRAC guidance

Figure 18: Calculation of research project costs[48]



Estates costs

A.6.2 Estates costs are effectively maintenance and capital spend that is not capitalised.

A.6.3 The total estates cost pool is expected to contain the following directly identifiable components: [49]

i. Repairs and maintenance and cleaning

ii. Utilities

iii. Rates

iv. Estates personnel costs

v. Rental costs

vi. An element of non-pension related interest costs

vii. Gross buildings depreciation

[48] TRAC guidance, chapter 5.1, *Calculation of research project costs*. Available here

[49] TRAC guidance, p.82

viii. Building impairment costs

ix. Buildings insurance

x. Porters and security

xi. Equipment and facility costs, when not purchased on a research grant or contract

xii. Part of the central service department's costs attributable to the estates department and the costs of all support staff that relate to these areas

Annex B. Principles applied

B.1 Economic Principles

B.1.1 We have determined three key principles that support the purpose for the MSI. These principles are required for the MSI to be a credible estimate of the (long run) sustainability requirement. They can be applied to considerations around the level of EBITDA for MSI and the adjustments made in its calculation. These principles are based on economic principles and regulatory precedent from other industries, which are presented in greater detail in this Annex.

Economic cost for sustainability

B.1.2 All businesses need to cover the cost of financing and to generate a minimum level of retained surplus for investment, whether that be in capital, innovation or human resources (in essence, businesses need to be sustainable). In economic theory, these surpluses are part of the costs of financing the business and contribute to fEC. EBITDA for MSI represents the amount of surplus that HEs need to sustain themselves (by, for example, servicing debt, and/or generating appropriate surplus cash flow to invest in growth). The EBITDA for MSI is added to TRAC expenditure to arrive at fEC.

Large one-off impacts

B.1.3 Since the MSI is designed to support long-term investment requirements, it may be appropriate to make adjustments to EBITDA for MSI by excluding large one-off income or cost items that are not reflective of long run funding requirements and therefore distort an assessment of surplus. We discuss economic principles and regulatory precedent to arrive at a materiality threshold for adjustment of large one-off items below.

Matching of income and expenditure

B.1.4 Expenditure should be considered within the TRAC surplus/deficit when it represents day-to-day activities and divided into categories based on the nature of the expenditure in order to reflect the day-to-day funding requirements of the institution. Consistently, income should be included within the TRAC surplus/deficit calculation when it is used to fund these activities and allocated to categories based on the profile of the specific activities funded by the income.

B.2 Full economic cost and the sustainability adjustment

B.2.1 According to economic theory, to be sustainable, businesses need to earn a level of profits to keep the factors of production in their current use in the long run (such as the rate of return on capital employed for a particular business activity would be equal to the opportunity cost of capital for that activity). As set out in the Competition Commission Guidelines (which have since been adopted by the CMA), the regulator is interested in understanding the economic rather than the accounting profitability of relevant firms.

B.2.2 The principles behind this are widely used in other regulated sectors, where there is a recognition that fEC include the cost of investing in assets, and the costs of financing these assets. See examples in Annex C of in the 2022 MSI Review. Applying this to the HE sector, it is important to note certain characteristics:

i. Although typically not-for-profit organisations, HE providers operate in a competitive market, and usually raise finance from commercial lenders or capital markets.

ii. Most HE providers recognise assets at historical cost in their financial statements (rather than using current cost accounting for assets), hence depreciation in the accounts will be on historic cost basis. Funding historic cost deprecation doesn't ensure that the business can replace assets at modern equivalent values as the depreciation charges in accounts do not usually represent the replacement cost of institutions' assets. There is also the risk of inadequate investment in physical assets.

B.2.3 There is a need to allow a surplus or mark up for risk, financing and development. The sustainability adjustment is therefore intended to cover the costs of building up cash reserves or servicing borrowing costs to invest in infrastructure, including physical assets, intangible assets, technology and in staff.

B.2.4 Industries subject to price control can provide insight into considerations of necessary return to drive long-term sustainability. In these industries, setting an appropriate allowance for the required return on equity, also known as the CoE, in the price control is essential to retain and attract investment in the sector. Ofgem, for example, must have regard (among other things) to:

i. The need to secure that, so far as economical, all reasonable demands for gas and electricity supply are met and can be financed

ii. Achieving sustainable development

iii. The interests of 'vulnerable' consumers

B.2.5 When estimating returns on capital, the CMA's approach was to start with accounting profits and the balance sheets and then to make adjustments to arrive at an economically meaningful measure of profitability.[50] Applying this to MSI, the RFG must have regard to (i) the need to secure that, so far as economical, all reasonable demands for financing and funding are met, (ii) achieving sustainable development and (iii) that there is sufficient funding to support 'vulnerable' students.

Uplifting cost of equity to secure the necessary return to drive long-term sustainability.

[50] CMA (2016) *Energy market investigation. Final report, Appendix 9.9,* p.A9.9-7. Available here

B.2.6 One of the statutory duties of Ofwat (the water regulator) is to ensure the financeability of the water companies it regulates, so the price regulations it sets are sufficient for efficient companies to raise the finance they need to invest to deliver services for their customers. This has sometimes resulted in adding an uplift to market-based cost of equity, in a practice called 'aiming up'.

B.2.7 In the PR19 price determination in the water sector, the CMA allowed an uplift, stating the "number of benefits from choosing a point estimate for the cost of equity above the middle of the range". Similarly, in the energy price determinations, the CMA discussion aimed up on CoE in energy for uncertainty in the industry where "the concept of aiming up is […] to recognise and mitigate the risk of consumer detriment due to discouraging new and continuing investment from inadvertently setting the allowed return too low".[51]

B.2.8 This is based on its view that there is a greater risk of consumer detriment from setting a cost of capital that is too low, versus one that is too high, given the potential negative effects, such as (i) the exit of capital over time by long-term investors in the sector; (ii) the ceasing of ongoing investment programmes; and (iii) underinvestment in new assets.

B.2.9 Applying this to MSI, there is an argument that it is better to overstate the margin applied, rather than understate it. If the MSI is not set at a sufficient level, there is potentially negative consequences such as the ceasing of ongoing research programmes and inadequate investment in new assets, both tangible such as university buildings and laboratories (shown by backlogs of maintenance) and intangible, in high quality teaching and research initiatives and inadequate investment in services and support for students. These activities represent the value that HE institutions provide.

B.3 Large one-off impacts

B.3.1 We consider two types of volatility that can be considered in respect of the EBITDA for MSI calculation. We then consider how to identify volatile cash flows using a materiality threshold.

B.3.2 Volatility may be driven by exceptional items. FRS 102 does not require exceptional items to be shown below the operating profit line, nor does it dictate which items are to be shown on the face of the profit and loss account. Instead it leaves this up to the entity to decide. It is important to note that economic 'exceptional' items may be different from accounting exceptional items and as such are not reported in the annual accounts as there is a higher threshold for accounting exceptional items. Accounting standards cannot, therefore, be relied upon to distinguish operating from non-operating items.

[51] CMA (2021). *Water Redeterminations 2020, Choosing a point estimate for the Cost of Capital – Working Paper,* para.115. Available here

B.3.3 Volatility can apply to revenue (to what extent do revenues vary in an economic downturn or not) as well as to costs (to what extent will key cost categories vary in an economic downturn) which may be intrinsic to HE activity. Variation in costs is normally related to the cost structure of the organisation; in essence, how much of its costs are fixed versus variable. If it is usual to have some level of volatility of cash flows then this should not be adjusted for in the calculation of EBITDA for MSI, unless this volatility is outside of business risk.

B.3.4 Regulatory precedents in the context of profitability analysis can be relevant to the consideration of exceptional items in EBITDA for MSI as they concern the impact of one-off items that distort the picture of the level of operating surplus that is considered reasonable.

B.3.5 The FCA Strategic Review of Retail Banking Business Models defines underlying returns as "*the returns from ongoing retail banking activities, excluding business lines in wind-down, as well as exceptional costs and revenues such as fines and gains from asset sales*".[52]

B.3.6 There is some discrepancy in the consideration of 'exceptional items' in profitability analysis in regulatory publications. Whereas the energy market investigation considers exceptional items to be part of comprehensive income and important to an assessment of profitability, but recommends separately identifying them, the funeral market study does not consider exceptional items to be relevant in understanding the underlying profitability.

B.3.7 "*When measuring the return being made on capital invested, it is important to identify in the measure of profits all gains and losses recorded in the balance sheet. This measure of profits is known as 'comprehensive income' as it includes not only profits from day-to-day operations but also any exceptional profits earned or losses incurred as well as any gains or losses resulting from movements in asset values during a period. It can be helpful to separately identify any unexpected, temporary or otherwise unusual items from comprehensive income to aid the interpretation of profitability over time. This approach to measuring profitability means that the costs incurred, or revenues earned, in any one period will not necessarily reflect the levels of costs expected to be incurred, or revenue expected to be earned, in future years (at current cost levels).*" [53]

B.3.8 "*Exceptional items typically occur infrequently or relate to transactions outside of the normal course of business […] As such, we do not consider them to be relevant to understanding the underlying profitability of the activity we are seeking to analyse*."[54]

B.3.9 Applying this to the HE sector, an analysis of the margin required for sustainability should consider whether items are in fact 'exceptional'. For instance, if a university regularly receives large capital donations or grants, and uses these to support day-to-day spending, then these items may not be considered 'exceptional'.

---

[52] FCA (2018) *Strategic Review of Retail Banking Business Models, Final report*, para.3.68. Available here

[53] CMA (2016) *Energy market investigation, Final report, Appendix 10.1: Approach to profitability and financial analysis*. Available here

[54] CMA (2020) *Funeral market study, Final Report, Appendix S*, p.S32. Available here

B.3.10 The MSI can be considered as the return required for sustainable investment. It is therefore important to consider the impact of one-off items that could distort the picture of the level of operating surplus that is needed. If there is higher volatility, a higher return (MSI) may be required. Higher cash flow volatility is associated with lower average levels of investment in capital expenditures, R&D, and advertising. Cash flow volatility also is associated with higher costs of accessing external capital.

B.3.11 These higher costs, as measured by some proxies, imply a greater sensitivity of investment to cash flow volatility. Thus, cash flow volatility not only increases the likelihood that a firm will need to access capital markets, it also increases the costs of doing so.

B.3.12 Therefore, volatile cash flows should be considered in the calculation for MSI so that MSI supports institutions in times of decreased surplus (or even deficit). If higher cash flow volatility is associated with lower average levels of investment in capital expenditures, R&D, then MSI should increase to adjust for this to ensure the sustainability of future cash flows or MSI should be structured in a way that smooths volatility, but not to the detriment of the overall level of MSI, so as to not deter investment.

B.3.13 "*Cash flow volatility remains a significant negative determinant of investment even after controlling for the costs of accessing external capital*."[55] If it is usual to have some level of volatility then this should be included in the calculation unless this volatility is outside of business risk.

B.3.14 It is also important to consider the frequency and materiality of income and expenditure.

B.3.15 Any income item that is received every one to six years will be averaged over the six-year period of the EBITDA for MSI analysis and may not be considered 'exceptional'. If a HE institution can expect to see this income over the six-year period, it will not add to the volatility of the MSI calculation. Income items received less often than this should be considered with more scrutiny (unless it can be recognised in parts and split over a time period).

B.3.16 An assessment of what level of volatility is normal in the sector could consider a materiality threshold in the context of the EBITDA for MSI. If an item pushes the six-year average EBITDA for MSI over this materiality threshold, it could be adjusted out of EBITDA for MSI.

B.3.17 The ICAEW publishes guidance on materiality for audit procedures, suggesting a benchmark line item and % for a materiality threshold. The ICAEW recommends that for not-for-profit entities, expenditure as benchmark may be more appropriate than income, as the level of income may vary from year to year but expenditure is more consistent, and a reasonable level would be 1% of income or expenses.

[55] Fazzari, Hubbard, and Petersen (FHP, 1988, FHP, 1998), Hoshi et al. (1991), Kaplan and Zingales (KZ, 1997), and Lamont (1997) find a negative contemporaneous relation between annual investment levels and liquidity, as noted *here.*

B.3.18 Therefore, if the exceptional adjustment moves the six-year average total EBITDA for MSI by 1% of total (TRAC) expenditure, it could be adjusted out of the calculation.

B.4 Matching of income and expenditure

B.4.1 In the EBITDA calculation, the costs should reflect the income generated in the period as far as possible. Any timing differences should be accounted for through the use of accruals or deferred income. Where the funds received are spent on day-to-day activities, and the expenditure is therefore considered within surplus/deficit, the associated income should be also considered day-to-day income.

B.4.2 The accruals or matching concept of accounting notes that income generated should be matched with expenses incurred, to a financial period, regardless of when the money is paid or received. We can only include ‘Expenses’ in the bottom half of the profit and loss statement that have been spent to generate the ‘Net Sales’ at the top.

B.4.3 The matching principle presents a more accurate picture of a company’s operations on the income statement. Investors typically want to see a smooth and normalized income statement where revenues and expenses are tied together, as opposed to being lumpy and disconnected. By matching them together, investors get a better sense of the true economics of the business.

Annex C. Recommendation 4 further analysis

C.1 Capital grants impact analysis

C.1.1 Capital grants typically fund capital expenditure, which is recognised as a cost through depreciation or amortisation. Under the current treatment, ignoring any timing differences, a capital grant and its associated expenditure would currently offset exactly and have no net impact on EBITDA for MSI. Including capital grant income would significantly increase the EBITDA for MSI, as shown by our analysis in this Annex. We conclude that the current treatment is appropriate for government and non-government capital grants under both accounting treatments.

Figure 19: Impact of adjusting the treatment of capital grants

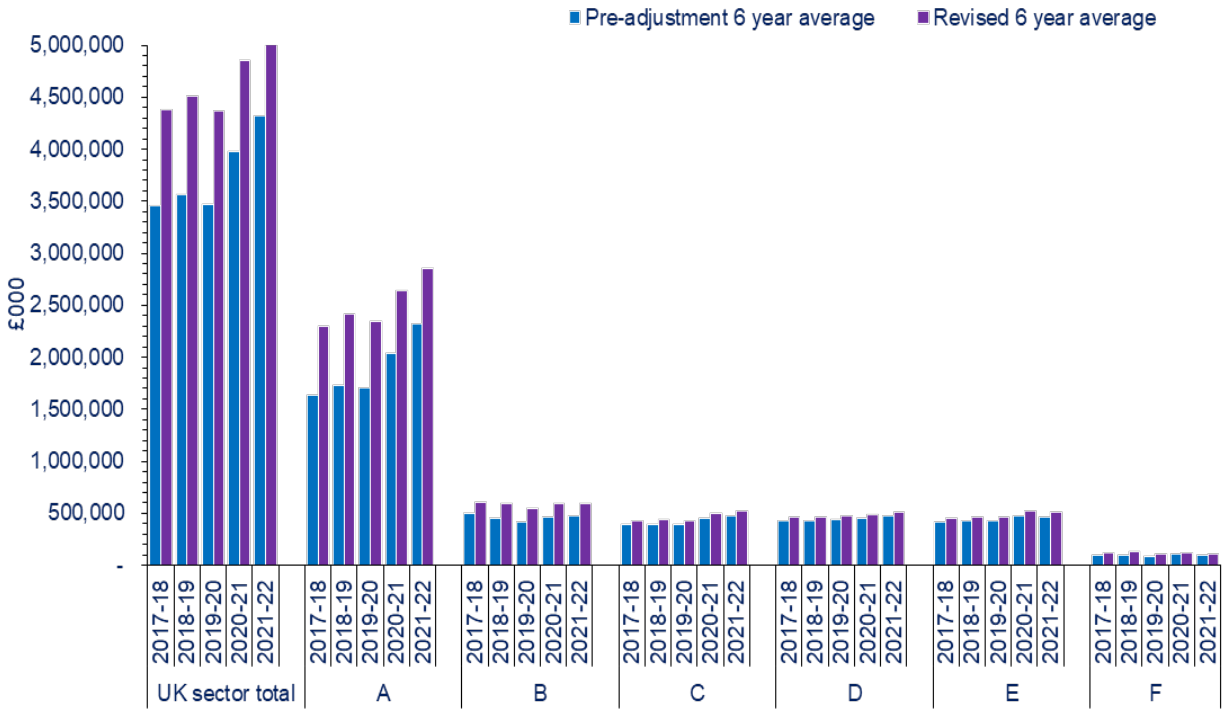


Figure 20: Impact of adjusting the treatment of capital grants

	Impact on UK sector total MSI						Materiality threshold – cross check of 'New government and non-government capital grants included in total income' (as per Table A2) in consideration of volatility of capital grant receipt
Peer group	**A**	**B**	**C**	**D**	**E**	**F**	
2017/18	UK sector total EBITDA for MSI increases from £3.57bn to £4.51bn (+£943m, +26.4%), associated UK total TRAC deficit therefore also increases by £943m.						Five institutions had new capital grants balances that are larger than the materiality threshold applied
	+40.6%	+23.2%	+10.2%	+8.9%	+9.1%	+24.6%	
2018/19	UK sector total EBITDA for MSI increases from £3.46bn to £4.38bn (+£917m, +26.5%), associated UK total TRAC deficit therefore also increases by £917m.						Eight institutions had new capital grants balances that are larger than the materiality threshold applied
	+37.5%	+27.2%	+11.0%	+8.8%	+10.7%	+25.9%	
2019/20	UK sector total EBITDA for MSI increases from £3.46bn to £4.37bn (+£902m, +26.1%), associated UK total TRAC deficit therefore also increases by £900m.						Two institutions had new capital grants balances that are larger than the materiality threshold applied
	+37.2%	+30.0%	+11.0%	+9.3%	+9.1%	+22.8%	
2020/21	UK sector total EBITDA for MSI increases from £3.98bn to £4.86bn (+£878m, +22.1%), associated UK total TRAC deficit therefore also increases by £878m.						Three institutions had new capital grants balances that are larger than the materiality threshold applied
	+30.2%	+26.5%	+9.8%	+8.3%	+9.0%	+26.7%	
2021/22	UK sector total EBITDA for MSI increases from £4.32bn to £5.11bn (+£791m, +18.3%), associated UK total TRAC deficit therefore also increases by £791m.						Two institutions had new capital grants balances that are larger than the materiality threshold applied
	+23.2%	+23.0%	+9.1%	+8.0%	+9.8%	+16.9%	

C.2 Allocation to Other (non-commercial) peer group analysis

C.2.1 The below graphs show how the allocation of EBITDA for MSI to Teaching, Research and Other changes per peer group, if EBITDA for MSI is no longer allocated to the 'Other (non-commercial)' category.

Figure 21: Change in allocation to 'Other (non-commercial)' for each peer group on average over 5 years (£000s)

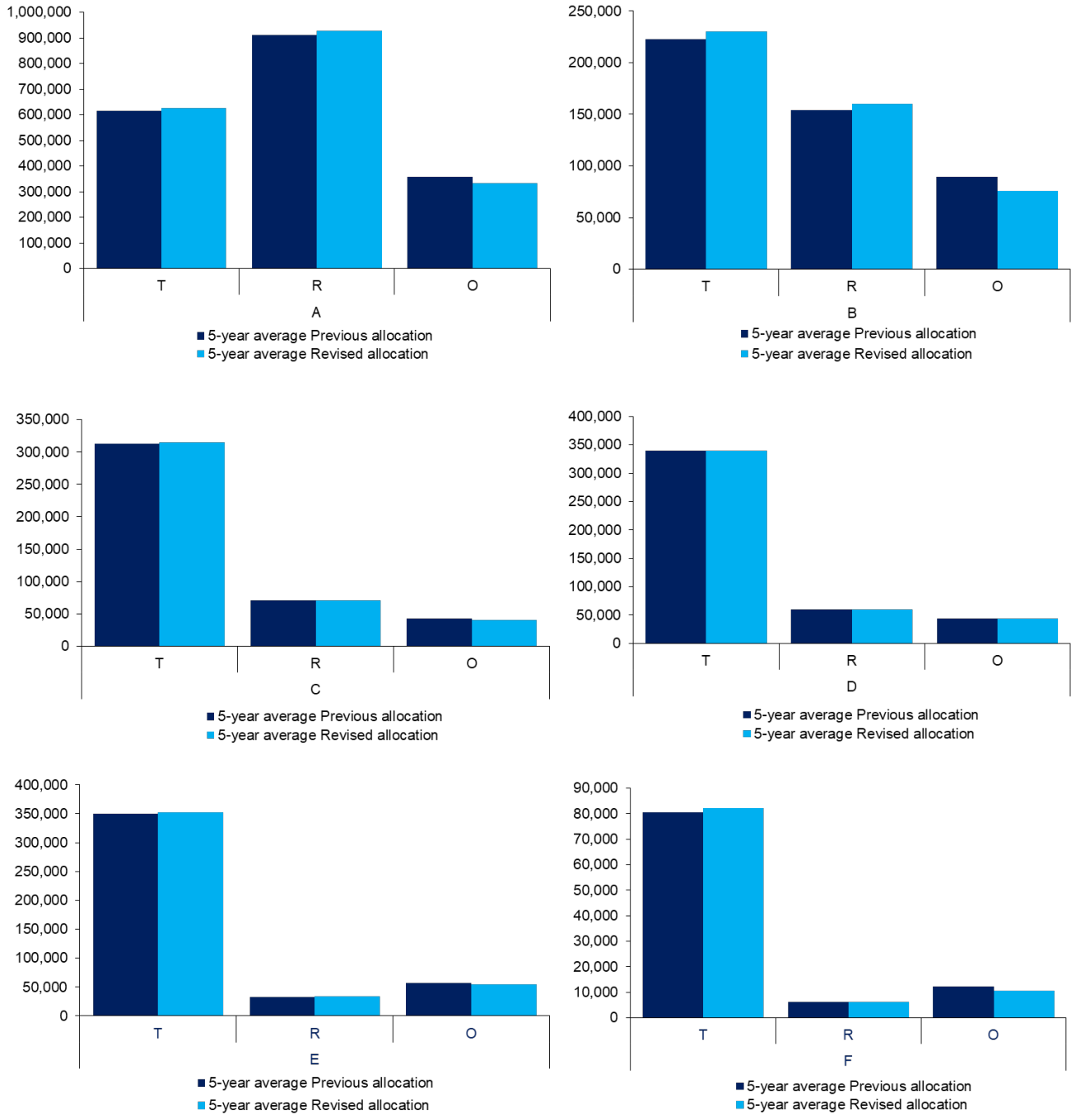


Table 19: Impact of not allocating EBITDA for MSI to 'Other (non-commercial)' on Teaching, Research and Other (income-generating)

	Impact on UK sector total MSI					
Peer group	A	B	C	D	E	F
5 year average	UK Sector total EBITDA for MSI increases by £24.1m (T), £23.1m (R) and - £47.13m (O).					
	(T) + 1.7% (R) + 1.7% (O) – 7.4%	(T) + 3.3% (R) + 4.0% (O) – 15.2%	(T) + 0.6% (R) + 0.6% (O) – 5.7%	(T) + 0.2% (R) + 0.2% (O) – 1.6%	(T) + 0.6% (R) + 0.9% (O) – 4.0%	(T) + 1.9% (R) + 3.4% (O) – 14.5%
2017 / 18	UK Sector total EBITDA for MSI increases by £18.3m (T), £14.8m (R) and - £33.1m (O).					
	(T) + 0.7% (R) + 0.9% (O) – 3.8%	(T) + 3.4% (R) + 3.9% (O) – 15.2%	(T) + 0.8% (R) + 0.8% (O) – 6.5%	(T) + 0.2% (R) + 0.1% (O) – 1.2%	(T) + 0.7% (R) + 1.3% (O) – 4.2%	(T) + 1.8% (R) + 3.9% (O) – 14.6%
2018 / 19	UK Sector total EBITDA for MSI increases by £20.8m (T), £16.8m (R) and - £37.6m (O).					
	(T) + 0.9% (R) + 1.0% (O) – 4.5%	(T) + 3.8% (R) + 4.3% (O) – 15.8%	(T) + 0.9% (R) + 0.8% (O) – 7.9%	(T) + 0.1% (R) + 0.1% (O) – 1.1%	(T) + 0.6% (R) + 0.7% (O) – 3.7%	(T) + 2.5% (R) + 5.0% (O) – 17.7%
2019 / 20	UK Sector total EBITDA for MSI increases by £21.4m (T), £19.0m (R) and - £40.4m (O).					
	(T) + 1.3% (R) + 1.6% (O) – 5.9%	(T) + 2.9% (R) + 3.6% (O) – 13.7%	(T) + 0.6% (R) + 0.6% (O) – 5.8%	(T) + 0.4% (R) + 0.5% (O) – 3.8%	(T) + 1.1% (R) + 1.1% (O) – 7.1%	(T) + 2.1% (R) + 4.1% (O) – 15.4%
2020 / 21	UK Sector total EBITDA for MSI increases by £30.2m (T), £31.7m (R) and - £61.9m (O).					
	(T) + 2.7% (R) + 2.5% (O) – 10.7%	(T) + 3.5% (R) + 4.1% (O) – 16.5%	(T) + 0.3% (R) + 0.3% (O) – 3.1%	(T) + 0.1% (R) + 0.1% (O) – 1.2%	(T) + 0.3% (R) + 1.1% (O) – 3.2%	(T) + 1.4% (R) + 2.3% (O) – 10.3%
2021 / 22	UK Sector total EBITDA for MSI increases by £30.0m (T), £33.3m (R) and - £63.3m (O).					
	(T) + 2.4% (R) + 2.4% (O) – 9.8%	(T) + 3.0% (R) + 4.0% (O) – 14.6%	(T) + 0.6% (R) + 0.7% (O) – 5.4%	(T) + 0.1% (R) + 0.0% (O) – 0.6%	(T) + 0.2% (R) + 0.4% (O) – 1.6%	(T) + 2.0% (R) + 2.6% (O) – 14.6%

Annex D. Recommendation 4 summary

Table 20: Impact of adjustments on MSI and stakeholders

	Key considerations	Recommendations	Impact on MSI
Endowments	Expendable endowments support the day-to-day running of HE institutions. There are no adjustments for expendable endowments in the EBITDA for MSI calculation. This approach agrees with the principles applied. The principal value of new permanent endowments is excluded from EBITDA for MSI as the endowment itself cannot be spent. Income generated from the permanent endowment (investment income) is recognised in EBITDA for MSI as it is not adjusted out. This agrees with the principles applied as it can be spent on day-to-day activities.	No changes required to methodology.	No impact on EBITDA for MSI.
Capital grants	Capital grants typically fund capital expenditure, which is recognised as a cost through depreciation or amortisation. Under the current treatment, a capital grant and its associated expenditure would have no net impact on EBITDA for MSI. Should future grant funding to sustain these activities in future years not be available, an increase in MSI may be appropriate. However, we	No changes are required to methodology. Information should be gathered on the extent to which capital grants fund non-capitalised expenditure. If this is significant, an adjustment to recognise some proportion of capital grants may be	No impact on EBITDA for MSI.

	Key considerations	Recommendations	Impact on MSI
	consider it reasonable to assume that similar grants will typically be available in future years if necessary. If 'capital' grants fund items that are recognised as operating expenditure, an adjustment may be appropriate to include these grants in the calculation of EBITDA for MSI.	appropriate. This should be kept under review.	
Capital donation income	Currently, no adjustments are made for donations. Donation income is unrestricted and can be spent on day-to-day operations. Institutions may reasonably expect to continue to receive donations on an ongoing basis, and so they may underlie everyday profitability. Where donations are immaterial and infrequent, they are expected as part of regular financing. However, large, one-off donations may not underlie everyday profitability.	Continue to make no adjustment for capital donations unless individual donations are above the materiality threshold. Analysis of the materiality of capital donations should be done on a per-donation basis, but given the small number of cases, this may be considered unnecessary. Considered material if they move the six-year average EBITDA for MSI by more than 1% of total expenditure, in which case they should be adjusted out of EBITDA for MSI. Where necessary, institutions could	We have considered the materiality of the full donation amount received in any one year. An average of 6.6 institutions had total 'New donations included in total income' that would materially impact EBITDA for MSI, at an average total of £73m. This will decrease overall EBITDA for MSI. Adjustment likely to have minimal impact on TRAC when considered on a per-donation basis.

	Key considerations	Recommendations	Impact on MSI
		provide information on large one-off donations to enable a materiality assessment to be completed.	
Allocation to 'Other (non-commercial)'	The items typically recognised in this category incur little risk and capital employed. As the Other (non-commercial) category contains items that would not generate margin and are outside core activities then they would not generate the MSI surplus. It therefore does not make sense to allocate MSI to this category.	Change allocation methodology to not allocate EBITDA for MSI to 'Other (non-commercial)'. This will not involve a significant amount of data collection, however, to enable accurate allocation, TRAC summaries should report TRAC expenditure to each 'Other' subcategory, in Tables C3 and F1.	MSI should not be allocated to Other (non-commercial). On average, across five years for the total UK sector, the allocation of EBITDA for MSI to Teaching has increased by £24m (1.24%), Research increased by £23m (2.24%) and Other decreased by £47m (-9.28%).

Annex E. Allocation considerations

E.1 This Annex considers in detail the principles that can be applied to allocation considerations.

Table 21: Detailed principles of cost allocation[56]

Principle	Description
Cost causality *	Costs should be allocated in accordance with the activities that cause them (including the cost of risk).
Objectivity	Costs should be allocated on an objective basis, without unduly benefiting the regulated company or any other company.
Transparency	The allocation method should be transparent.
Consistency *	The allocation of costs should be consistent with the regulator's objectives (for example, economic efficiency, fairness/distributional considerations) and statutory duties (to further the interest of consumers, ensure the provision of universal service amongst others). Where the purpose of the MSI is to support sustainable investment and financing of HE activities, the allocation of MSI should be in line with this, including consideration of the risk of these activities.
Feasibility *	The allocation method should be practical. Any method for allocating MSI in TRAC should be fair and reasonable, without introducing any undue complexity. There is an increased risk of error in the calculation if using a more complex method to allocate MSI.

*Principles we consider most relevant and discuss in more detail.

[56] Adapted from Inter-Regulatory Working Group (2001), 'The Role of Regulatory Accounts in Regulated Industries: A Final Proposals Paper by the Chief Executive of Ofgem, Director General of Telecommunications, Director General of Water Services, Director General of Electricity and Gas Supply (Northern Ireland), Rail Regulator; Civil Aviation Authority, and Postal Services Commission' (Section 4). Available here

Table 22: Allocation methods

	Description			Application to MSI
Input-based cost drivers	Indirect costs apportioned to a particular line of business based on other known inputs employed in the production of that line of business. A combination of input indicators can also be used.	**Direct approach**	Relatively straightforward application of the chosen driver (or drivers) to the indirect costs. For example, if directly employed labour (headcount) is the chosen driver, indirect costs would be allocated proportionally across the various lines of business based on that driver.	Consideration of drivers of MSI. Estates costs are one of these drivers, but as outlined, there are other drivers of sustainability in the sector.
		Equi-proportionate mark-up (EPMU)	An EPMU is applied across all products based on the direct costs of each product. For example, if allocating £50 of indirect costs across two products, with £40 and £60 of direct costs respectively, a mark-up of 50% would be applied to each product, so that £20 would be allocated to the first product and £30 to the other.	The approach currently taken by allocating EBITDA for MSI based on TRAC expenditure.
Output-based cost drivers	Indirect costs allocated using output indicators, such as production or sales volumes.	**Activity-based costing (ABC)**	More refined version of the above two methods. Under ABC, the indirect costs are first segregated by activity and then assigned to particular lines of business based on the cost drivers of the activities. For each activity, the cost assigned to each line of business is then allocated using the most suitable indicator.	An ABC method would consider the cost drivers of sustainability within T, R and O and allocate based on these.
Value-based cost drivers	Indirect costs are allocated based on demand factors, such as the prices, revenues or consumers' willingness to pay. One variant is to allocate costs using the Ramsey pricing principle, which states that it is economically efficient to recover a relatively larger part of common or joint costs from those customers whose demand is relatively more inelastic (less sensitive to price). However, the Ramsey-based approach was rejected by the Competition Commission (CC) in the UK mobile call termination inquiry in 2003 (Competition Commission (2003), 'Vodafone, O2, Orange and T-Mobile') as the CC consider it inconsistent with the cost-causation principle.			Not relevant to allocation of MSI.

E.2 Economic principles applied to allocation considerations: risk

E.2.1 Under the risk principle, riskier activities would expect to have a larger proportion of MSI allocated. This does not necessarily align to the expenditure method of allocation that TRAC currently uses.

E.2.2 In regulated sectors where profitability is assessed using a return on capital approach, an appropriate allowance for the CoE is one that reflects the return that investors can earn on investments of comparable risk (reflecting the opportunity cost of capital) and remunerates investors for probability-weighted losses (or gains). Only where the CoE meets this criterion would the investment be deemed financeable by being able to attract sufficient capital.

E.2.3 Universities require compensation for investment into research, teaching and other student services as well as for physical infrastructure. Although the risk profile of activities will vary for different institutions, depending on their strategy and risk appetite, all of these activities involve a level of risk that must be compensated for in order to receive sufficient investment. For example, research can be costly, risky and there may be a time lag before institutions receive any associated income or the output can be commercialised. Further, it is not necessarily the case that the research will produce any useful conclusions. Institutions should be sufficiently compensated for this.

E.2.4 Risks associated research may be:

i. Failure to deliver on external grant funded projects

ii. Failure to develop research sufficiently, possibly resulting in a negative reputation

iii. Insufficient strengths in research and enterprise possibly limiting future opportunities

iv. Failure to maintain high standards in research governance and integrity, possibly resulting in a failure to meet terms and conditions of funders

v. Growth in international research and networks

vi. Failure to retain active research staff with the capability of attracting external grant income and delivering projects and impact

vii. Insufficient management of experiments such as clinical trials and other research governance

E.2.5 Risks associated with academic and student life/recruitment

i. Failure to achieve excellent teaching standards

ii. Failure to achieve an excellent learning environment

iii. Failure to meet academic quality of a high standard that could threaten reputation

iv. Failure to meet student expectations

v. Failure to achieve student retention

vi. Inability to recruit students/meet student recruitment targets

vii. Inadequate masters student recruitment that may threaten HE status

viii. Lack of appropriately skilled and knowledgeable academic and support staff through a failure to attract top talent and exploit the breadth of skills and experience across the institution

E.2.6 Risks associated with finance and infrastructure

i. All short-term and medium-term risks may threaten the long-term financial stability of the institution

ii. Inadequate cash balances to meet operational needs

iii. Failure to develop an estates plan to meet the institution's strategic plan

iv. Infrastructure that does not sufficiently meet student's expectations and is not fit for purpose

v. Financing of specialist research and teaching infrastructure such as science parks

E.3 Economic principles applied to allocation considerations: cost causality

E.3.1 Costs should be allocated in accordance with the activities that cause them. Often, grants and endowments are given with a purpose. The methods previously considered allocated these within the "remainder of EBITDA for MSI" which is allocated in proportion to all other expenditure. Where these items are not adjusted out of EBITDA for MSI, an approach to allocation would allocate the MSI related to the specific grant to the activity to which it relates. This approach would require more data to be submitted by the HE institutions.

E.3.2 Regulatory precedent, such as Telcos, suggests that allocation of grants should be made to the activity to which they relate. For instance, a grant specific to a research activity should be allocated to research.

E.3.3 Some parts of BT's network are funded by external entities. The BDUK grant scheme is a DCMS scheme where Openreach is provided with 'gap' funding to deploy broadband in areas that were not commercially viable. Ofcom conclude that grant funding should be directly allocated and adjusted for in relation to the activity it is funding. A 'grant funding' asset category will be included in the regulatory financial statements (RFS). Ofcom expect funding received from BDUK to be included in this category, alongside other relevant grants. This offsets the amounts reported in other asset categories. Ofcom require BT to provide information on grants received, including from BDUK. This will include details of the assets funded by grants, the level of grant funding for each asset and an explanation of how the grant arrangements work.[57]

[57] Ofcom (2021) *Promoting competition and investment in fibre networks*. Available here

E.4 Taking a capital approach to allocating MSI

E.4.1 Taking a return on capital employed (ROCE) approach to incorporating a margin into TRAC was considered in the April 2022 report. This involves calculating EBIT and dividing it by the average capital employed (CE) over the assessment period (both tangible and intangible assets and potential capitalisation of maintenance costs). See Equation 3 below.

Equation 3: Return on capital employed

$$ROCE = \frac{EBIT}{average\ capital\ employed}$$

E.4.2 This approach was considered but was determined to be a less pragmatic and proportionate approach given the resources that would be required. As such this approach to calculating MSI was ruled out.

E.4.3 A return on sales approach was deemed more appropriate because HE providers are not typically as asset heavy as utilities providers (that tend to use a return on capital approach) and are also likely to invest heavily in intangible assets and the development of intellectual property, which are difficult to value accurately. The use of an EBITDA margin may represent a more proportionate approach given the resources that would be required to carry out a bottom-up analysis of capital employed.

E.4.4 It may be possible to allocate EBITDA for MSI as per the proportion of capital required to perform the activity. This approach would reflect the risk of each activity and could inform the sustainability requirement, more accurately reflecting estates expenditure.

i. Determine the capital requirements of each activity

ii. Split EBITDA for MSI based on this proportion

E.4.5 In the energy market investigation, the CMA note that "*Economic profits can differ in important respects from accounting profits, with adjustments most commonly required to the value of capital employed in the business to:*

a) *ensure that all assets required for the operation of the business, including intangible assets, are recognised on the balance sheet; and*

b) *ensure the value at which these assets are included in the capital base reflects the current opportunity cost of owning the asset*."[58]

[58] CMA (2016) *Energy market investigation. Final report*, Appendix 9.9, p.A9.9-7. Available here

E.4.6 Cost and asset allocation problems are common to any attempt to analyse business segment profitability. In many cases assets are shared amongst businesses. This means that to measure profitability common assets have to be allocated between businesses on some reasonable basis. For example, in the UK Pay TV Movies case, the transmission technologies for the film channels are necessarily shared with sports and other channels, and some capacity is provided to outside operators.[59] The difficulty in allocating assets led the Competition Commission to assess disaggregated profitability on a Return on Sales (ROS) basis. The report mainly focuses on assets-based return measures such as ROCE or Truncated Internal Rate of Return (TIRR). But they do consider ROS, as explained below.

E.4.7 In the assessments of profitability, the CC noted that an essential input is a modified asset value. Specifically, some notion of Modern Equivalent Asset (MEA)s is required in order to assess the underlying assets employed. However, there are cases where determination of the asset base is highly problematic. This may be because of asset allocation issues (as in Pay TV Movies) or because of the valuation of intangibles, or even because a firm has very few physical assets, as in the case of many businesses based around intellectual property (IP). In such cases, one may have to fall back on margin analysis in assessing profitability. Conceptually, margin analysis is related to pre-tax ROCE as given by Equation 4.

Equation 4: Breakdown of ROCE

$$ROCE = \frac{EBIT}{CE} = \frac{EBIT}{S} \; x \; \frac{S}{CE}, \qquad where\ S = sales$$

E.4.8 There is a good argument that suggests that physical asset allocation is likely to be higher for teaching (as can be seen by Table F1 of the TRAC summaries where for the majority of institutions, estates costs (excluding research facilities and lab technicians) are higher for Teaching than Research) but allocation of intangible IP assets is likely to be higher for Research. Under this consideration, Methods 1 and 2 would lead to higher allocation of margin towards teaching (on the basis that it uses more physical assets), which would run the risk of distorting the picture and providing a less accurate allocation. Recognising the approach is imperfect, this doesn't feel like a way to improve it. This means in the absence of any intangible asset valuation or allocation methodology between the two business segments, the best approach may be to continue with an allocation based on TRAC expenditure.

[59] Competition Commission (2012), *Movies on pay TV market investigation*. Available here and here

E.5 Principles applied to allocation considerations: undue complexity

E.5.1 The CMA merger remedies guidance considers the cost and proportionality of remedies. “If the CMA is choosing between two remedies which it considers will be equally effective, it will select the remedy that imposes the least cost or that is least restrictive. The CMA will seek to ensure that no remedy is disproportionate in relation to the SLC [Substantial lessening of Competitions] and its adverse effects.”60

E.5.2 Therefore, any allocation solution should be proportional to the cost, time and expertise it would take to implement it into TRAC. Any method for allocating MSI in TRAC should be fair and reasonable, without introducing any undue complexity. There is an increased risk of error in the calculation if using a more complex method to allocate MSI. There may be no perfect answer. The existing method, allocating in proportion to TRAC expenditure, although not perfect, is the simpler method.

[60] Competition Commission (2012), *Movies on pay TV market investigation.* Available: *here* and *here*

Annex F. Phase 1 residences analysis detail

Table 23: Assumptions used in illustrative example

Assumptions		Source [61]
Asset value	145,000	*Service concession report*
Rental income year 1	20,000	*Service concession report*
Rental income year 2 onwards	15,000	*Service concession report*
Operating expenses associated with own rental	30%	*Variable estimate of operating expenses associated with residences*
Finance charge	5%	*Service concession report*
Loan principal repayment	9,000	*Service concession report*
Management fee	3%	*Service concession report*
Term of arrangement/depreciation	40	*Service concession report*
Service expense	1,000	*Service concession report*
Simplifying assumptions (other income and expenses)	0	
Initial TRAC expenditure (pre residences arrangement)		
TRAC expenditure to Teaching	30,000	*Approximated figures - determined from institutions with EBITDA for MSI 5,000-9,000 in 20-21 TRAC summary*
TRAC expenditure to Research	20,000	
TRAC expenditure to Other (income generating) (pre case study adjustments)	10,000	
TRAC expenditure to Other (non-commercial) (pre case study adjustments)	30,000	

Table 24: Details of case study modelling

Case Study	EBITDA for MSI	Allocation % to T, R, O (based on TRAC expenditure)			Comments
		Teaching	Research	Other	
0a	**11,083**	**4,776**	**3,184**	**3,124**	Operating expenditure incurred by institution with no financing risk, as it is financed out of retained earnings.
0b	**11,083**	**4,325**	**2,883**	**3,875**	Operating expenditure incurred by institution with finance risk due to loan financing arrangement.

[61] BUFDG (2019) *Service Concessions Case Studies*

Case Study	EBITDA for MSI	Allocation % to T, R, O (based on TRAC expenditure)			Comments
		Teaching	Research	Other	
					Total EBITDA for MSI is the same as for Case Study 0a, as interest expense does not form part of EBITDA. This is consistent with MSI principles. The increased interest expense leads to an increased MSI allocation to Other as compared to Case Study 0a. This appears in line with the principles of allocation based on the underlying drivers of risk and return.
1	**16,142**	**6,737**	**4,492**	**4,913**	Under this arrangement all costs, including those (such as operating expenditure) which are not added back when calculating EBITDA, are added back when calculating EBITDA in TRAC, as expenses are incurred by the operator and recognised as a finance charge by the institution. This leads to a higher reported EBITDA for the institution as compared to Case Study 0a, which is not aligned to any increase in the risk profile. The increased interest expense leads to an increased MSI allocation to Other as compared to Case Study 0a. This appears in line with the principles of allocation based on the underlying drivers of risk and return.
2	**475**	**178**	**119**	**178**	EBITDA for MSI only contains 3% management fee. Rental income is remitted to the operator, and no asset or liability is held on the institution's balance sheet. This is consistent with MSI principles, as the risk to the institution is significantly lower under this arrangement than under Case Study 0a. Rental income is recognised with an offsetting operating cost representing the remittance to the operator. As MSI allocation is based on

Case Study	EBITDA for MSI	Allocation % to T, R, O (based on TRAC expenditure)			Comments
		Teaching	Research	Other	
					expenditure alone, this increased cost results in an increased proportionate allocation to Other compared to Case Study 0a, which is not consistent with MSI principles.
3	**221**	**114**	**76**	**32**	Under this arrangement all costs, including those (such as depreciation) which are added back when calculating EBITDA, are not added back when calculating EBITDA in TRAC, as they form part of the share of surplus in JV and associates. This leads to a lower EBITDA for the institution compared to Case Study 0a, which is not aligned to any increase in the risk profile. MSI allocation is based on expenditure, which does not include the share of surplus in JV and associates. As a result, the residences costs are not taken account of in the allocation, and so this arrangement results in a substantially lower proportionate allocation of MSI to Other compared to Case Study 0a, which is not consistent with MSI principles.
4	**15,833**	**5,938**	**3,958**	**5,938**	Under this arrangement all costs, including those (such as operating expenditure) which are not added back when calculating EBITDA, are added back when calculating EBITDA in TRAC, as expenses are incurred by the operator and recognised as a finance charge by the institution. This leads to a higher reported EBITDA for the institution as compared to Case Study 0a, which is not aligned to any increase in the risk profile. The increased expense associated with meeting the accommodation guarantee (as per the

Case Study	EBITDA for MSI	Allocation % to T, R, O (based on TRAC expenditure)			Comments
		Teaching	Research	Other	
					BUFDG case study) leads to an increased MSI allocation to Other compared to Case Study 0a. This appears in line with the principles of allocation based on the underlying drivers of risk and return, although we note that assumptions around revenue and accommodation levels do not appear consistent between scenarios, so this arrangement will not always result in an increased allocation of MSI to Other.
5	**14,833**	**6,191**	**4,128**	**4,514**	Under this arrangement all costs other than the service expense paid to the operator, including those (such as operating expenditure) which are not added back when calculating EBITDA, are added back when calculating EBITDA in TRAC, as expenses are incurred by the operator and recognised as a finance charge by the institution. This leads to a higher reported EBITDA for the institution as compared to Case Study 0a, which is not aligned to any increase in the risk profile. The increased interest expense leads to an increased MSI allocation to Other compared to Case Study 0a. This appears in line with the principles of allocation based on the underlying drivers of risk and return.

Table 25: Details of different arrangements and the impact of IFRS 16

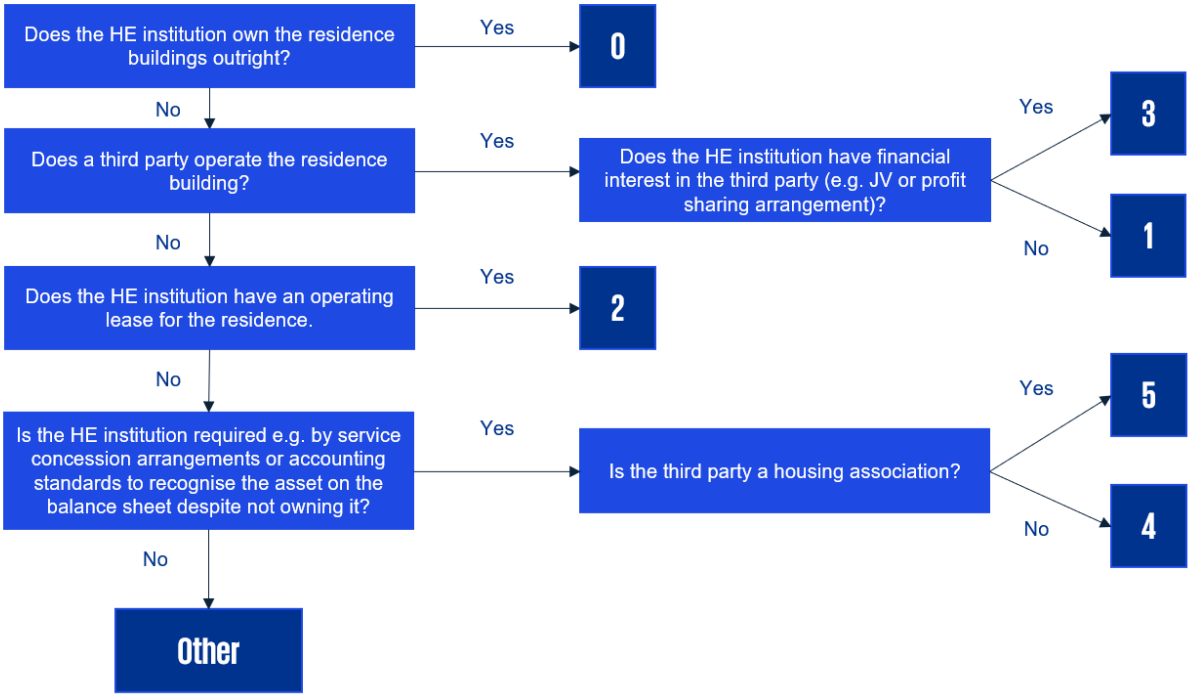
	Detail of arrangement	Impact of IFRS 16
Case study 0	Owned own residences and there is no lease arrangement.	Therefore, the arrangement is not impacted by IFRS 16, and no changes would be required to the treatment currently presented.
Case study 1	The assets are returned to the institution for nil consideration at the end of the agreement. Service concession arrangements means that the institution has to recognise as asset at the present value of the future minimum lease payments.	Asset is already recognised on the balance sheet at the present value of the minimum lease payments due to service concession standards. Therefore, arrangement is not impacted by IFRS 16 as will continue to need the asset to be recognised.
Case study 2	The institution has leased land to the operator for 40 years and leases the asset back (for nil consideration), once constructed by the operator, for the remainder of the 40-year lease term.	No asset is currently recognised on the balance sheet. However, IFRS 16 would require an asset to be recognised as the institution has a right-of-use asset representing its right to use the underlying leased asset. Therefore, the arrangement would be impacted by IFRS 16 as lease accounting would feed through to increase EBITDA for MSI.
Case study 3	Institution holds an operating lease. The head lease is for 125 years and the guarantee length is 25 years.	No asset is currently recognised on the balance sheet, however IFRS 16 requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months. Therefore, an asset should be recognised on the balance sheet. Arrangement would be impacted by IFRS 16 as lease accounting would feed through to increase EBITDA for MSI.
Case study 4	At the end of the term the asset transfers to the institution at nil residual value, being the end of the asset life. The institution takes the credit and void risk with the student lettings.	No asset is currently recognised on the balance sheet. However, IFRS 16 would require an asset to be recognised as the institution has a right-of-use asset representing its right to use the underlying leased asset. Arrangement would be impacted by IFRS 16 as lease accounting would feed through to increase EBITDA for MSI.
Case study 5	The institution has a lease back from the HA for the new Halls. The institution makes a monthly payment for this lease.	Asset is already recognised on the balance sheet at the present value of the minimum lease payments due to service concession standards. Therefore, arrangement is not impacted by IFRS 16 as will continue to need the asset to be recognised.

Annex G. Phase 2 residences analysis detail

G.1 Design of the data request

G.1.1 The decision tree below was produced to support institutions understanding the arrangement of residence categories.

Figure 22: Design for identifying residences arrangement types[62]



[62] KPMG analysis

G.1.2 Data requested across the years of study from 2017/18 to 2023/24.

Table 26: Data specifications requested

	Line item	Description
	Description of the arrangement	An explanation of the arrangement within the description box, including any contract terms, length of arrangement and financing information.
i	**Estimated % of residences portfolio**	The % of the full residences portfolio that is covered by the arrangement, calculated on a capacity basis (the number of rooms in this residences arrangement/total number of rooms).
ii	**Operating revenues related to this arrangement**	Revenues related to the residences arrangement. For example, rental revenues.
iii	**Operating expenses related to this arrangement**	Operating expenses related to the residences arrangement. For example, staff costs, rental costs, lease payments, property maintenance and utility costs. As well as direct costs, this may also include allocated indirect costs that are necessarily incurred in providing the residence arrangement, such as additional administration costs that would not be required if the residence was not provided. Depreciation requested to be recorded separately.
iv	**Depreciation charges recognised in relation to this arrangement**	Depreciation charged to the Statement of Comprehensive Income and Expenditure in the year associated with the assets in the residences arrangement.
v	**Interest expenses related to this arrangement**	Interest expenses paid in the year associated with the residences arrangement.
vi	**Interest income related to this arrangement**	Interest income earned in the year associated with the residences arrangement.
FAQ1	**I cannot identify the specific values in relation to my institution's arrangement, what should I do?**	Where finances are managed holistically, institutions were requested to attempt to attribute a proportion of the finance costs to residences and explain the allocation method in the notes column. If a lack of information did not allow attribution to arrangements or it was not possible to identify the financial information specific to the residence arrangement, institutions were requested to explain this in the description box or notes column as appropriate.
FAQ2	**My institution has multiple arrangement types, what should I do?**	Where more than one arrangement is used, institutions were requested to fill out a data request for each arrangement. Where an institution has multiple arrangement types of the same category (for example, multiple leaseback deals), then it was requested to present aggregate figures for all those arrangements and provide details in the description box.

G.1.2 Response summaries and data limitations

Table 27: Response summaries to the survey questions

Are your residences arrangements something you have previously considered in relation to their impact on your TRAC return and do you have a view on whether these distort funding arrangements?	
Summary of Response	**Detailed responses**
Haven't considered	• We have not considered the residences impact in isolation as overall we believe that the MSI is flawed. In terms of its internal messaging, it is treated as a TRAC adjustment and not used elsewhere. • The impact of residency arrangements has not previously been considered by the TRAC Oversight Group other than its subsidy of our core teaching and research activities. • As [we have] a dispensation we have not considered the distortive effect of the residence arrangements. • Not something previously considered. • No as the income is minimal.
Haven't yet considered but see there could be some impact	• Not previously considered but different arrangements could indeed skew the distribution of the MSI between Teaching, Research and Other. • Not immediately as we own the vast majority of our residences. It will be a consideration as we embark on our Residences Strategy as part of the new Strategic Plan (which has just launched) as we consider different operating and funding arrangements available. • We haven't really considered it in detail. We have in the past had a mixture of residences arrangements and where they are externally leased then because higher expenditure would be incurred (as opposed to depreciation) then the MSI figure would be lower, therefore reducing our overall TRAC expenditure. • We haven't previously considered the impact of residency arrangements on our TRAC Return, although we have recently questioned with the TRAC Support Unit whether our policy of revaluing assets is detrimental to our MSI & TRAC Result.

	• We have not previously considered the impact of residences on the MSI, the cost of our nominations agreements are relatively low as a proportion of our cost base. High level calculations indicate that our MSI would increase by c10% if we were to remove the cost of nomination agreements, this would result in a 1% - 2% increase on our FEC rates.
Consider minimal implications	• No financial implications from existing arrangement. • We do not believe they distort significantly the outcome. • We don't feel our residence arrangements distort our funding arrangements.. • We do not believe that the accounting for our residences distorts our TRAC return. • We have not previously considered residence arrangements when submitting TRAC returns. We do not expect these to distort funding arrangements.. • We make the necessary adjustments for associates when preparing the TRAC return and take the view the arrangements do not materially affect the TRAC return.
Believe there could be a distortion	• We know that our operating lease properties reduce our fEC recovery against other income generating activity because they don't generate a surplus. When we review the benchmarking data, it feels that this is distorted by mixing those institutions that own their residences and those that don't. I don't see how our residences would distort our funding as we claim dispensation, so we don't generate our own charge our rates, but use the published lower quartile rates. • Yes we have considered it. Requirement to include income and expenditure in comprehensive income statement even when we do not own the student residences leads to fEC deficit as MSI is added to costs (which are equal to income). • We are aware that because we do not own all of our residences, it is less likely that we will be able to make surplus on fully absorbed Other (commercial activity).
Have considered and have made amendments to strategy	• We have considered residence arrangements when designing our TRAC model. For example, maintenance of the [third party] accommodation is provided by [third party] so we have excluded [third party] space from the Maintenance Cost driver.

- The university is party to an arrangement with [third party] in respect of the provision and operation of its student residential accommodation. The accommodation is operated by [third party 2], a wholly owned subsidiary of [third party 3]. The university has granted long leasehold interests to [third party 2] in respect of the accommodation. The university has a 20% holding in both the equity and loan notes of [third party 3] and has accounted for its interest as an investment in an associated undertaking.

Do you have a view on a better way to account for residence arrangements?	
Summary of Response	**Detailed responses**
No changes required	• I do not believe there is a need to change. The problem with MSI and its predecessor is that it seeks to align things that cannot be aligned. Each university has a different mix of operations, funding, and targets for surplus levels. MSI reflects the individual aspects of that. Residences is one example of difference, there are others. Seeking to remove them and homogenise all Universities is not a valid aim, rather there should be an acceptance of those differences. • We account for our residence arrangements in accordance with accounting standards and GAAP.
TRAC should be aware of residence arrangements	• Residence arrangements will vary considerably between HE institutions. Our view is that the TRAC model simply needs to recognise if the residences that are part of a residences arrangement should or should not attract indirect and estates costs, depending on the nature of the arrangements.
Keep residence arrangements separate	• Identify residences (and other outsourced operations such as catering) as a separate TRAC activity and then exempt them from MSI allocation. • Consider creating a specific category, under Other (income-generating) section. • Exclude expenditure relating to 'Standalone Other' operations from the Other expenditure total for the purposes of MSI distribution? • Agree with the concept of keeping residences separate in TRAC under O. Do not have a view of applying a TRAC adjustment to them. • It might be preferable to separate residences & conferences from other income generating activity and the MSI calculation and allocation. This would also assist with more meaningful benchmarking data.

- The residences surplus or deficit feeds into the MSI calculation as part of the overall surpluses and deficits, which are stated for six years, then averaged. If you own your own residences then you will likely have a higher surplus (or lower deficit) than those that do not. However, the way the MSI calculation works, is that if you have a higher surplus, then you will likely have a higher total MSI charge. As a TRAC fully absorbed surplus is unlikely to be achieved, even if you have significant surpluses, it might be an idea to strip out the residences surplus or deficit from the MSI calculation and remove any residence-related depreciation and loan interest charges. This should reduce the overall MSI charge and make it a more appropriate adjustment.

G.1.3 Overall, we received 47 data submissions with submissions across peer groups. These were distributed across arrangement types (note that some institutions have more than one arrangement type), with only Type 5 not covered.

Table 28: Number of universities having a particular arrangement type each year

Type (count)	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
No residences (counterfactual)	5	5	5	5	5	5	5
0	32	32	32	32	33	33	30
1	5	5	6	6	6	6	5
2	25	24	25	25	27	27	26
3	2	2	2	3	5	5	6
4	9	9	9	9	11	11	10
5	0	0	0	0	0	0	0
Other	4	4	4	4	4	4	3

G.1.4 Of these, the majority of respondents sit in peer group A and E. One respondent sits in peer group F but does not have any residences. Of the five respondents with no residences (the counterfactual, CF), one is not aligned to a peer group.

Table 29: Number of universities with particular residences types each year by peer group

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Peer group A							
0	14	14	14	14	14	14	13
1	2	2	3	3	3	3	2
2	8	8	8	8	9	9	9
3	1	1	1	1	3	3	3
4	3	3	3	3	3	3	3
5	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
CF	0	0	0	0	0	0	0
B							
0	5	5	5	5	5	5	4
1	0	0	0	0	0	0	1
2	4	3	3	3	3	3	2
3	1	1	1	1	1	1	2
4	1	1	1	1	1	1	1
5	0	0	0	0	0	0	0
Other	2	2	2	2	2	2	2
CF	0	0	0	0	0	0	0
C							
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	0	0	0	0	0	0	0
4	1	1	1	1	1	1	1
5	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
CF	0	0	0	0	0	0	0
D							
0	5	5	5	5	5	5	5
1	2	2	2	2	2	2	1
2	3	3	3	3	3	3	4
3	0	0	0	0	0	0	0
4	1	1	1	1	1	1	1
5	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	0
CF	0	0	0	0	0	0	0
E							
0	5	5	5	5	6	6	5
1	0	0	0	0	0	0	0
2	6	6	7	7	8	8	7
3	0	0	0	0	0	0	0
4	1	1	1	1	2	2	1
5	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
CF	0	0	0	0	0	0	0
F							
0	1	1	1	1	1	1	1
1	0	0	0	0	0	0	0
2	1	1	1	1	1	1	1
3	0	0	0	0	0	0	0
4	0	0	0	0	1	1	1
5	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
CF	0	0	0	0	0	0	0

G.1.5 Data limitations

i. We received only 47 responses to the data request, creating a potential sample size issue. We have corrected this where possible by taking appropriate averages and noting where the result may be based on an outlier, but this may still bias some results. Some institutions submitted data after the deadline, which has not been incorporated into the draft report.

ii. We understand that collegiate universities (where the institution carries out both teaching and research as well as residence activities in colleges rather than centrally) may distort the results due to the nature of recording financial information. However, this is a small number of institutions, none of which submitted data as part of this study. Therefore, we are comfortable that our results are not distorted by collegiate arrangements.

iii. We have not verified or validated the data returned by institutions. There may be an inconsistency as to how institutions segregate residences income and expenditure. Further work may be done to understand whether these inconsistencies exist and how they may impact the results.

iv. We have no respondents who have Type 5 residences, which results in a gap in our analysis. However, we can infer that this arrangement type is limited in use and as such will likely have immaterial impact on TRAC results.

v. Some institutions were unable to provide occupancy data (i) during the Covid period or (ii) where third parties operate the residence. In these cases, we have used a proxy for occupancy rate based on other arrangements that the institution has or equivalent arrangements. This factor is immaterial to the results, as it does not feed into the main calculations.

vi. Investment income from joint ventures/associates that hold residences arrangements was not submitted separately. This meant that the results for Type 3 may not be fully reflective of the financial impact of the arrangement. Adjustments were therefore also not able to be made to the TRAC returns to consider the impact on allocation.

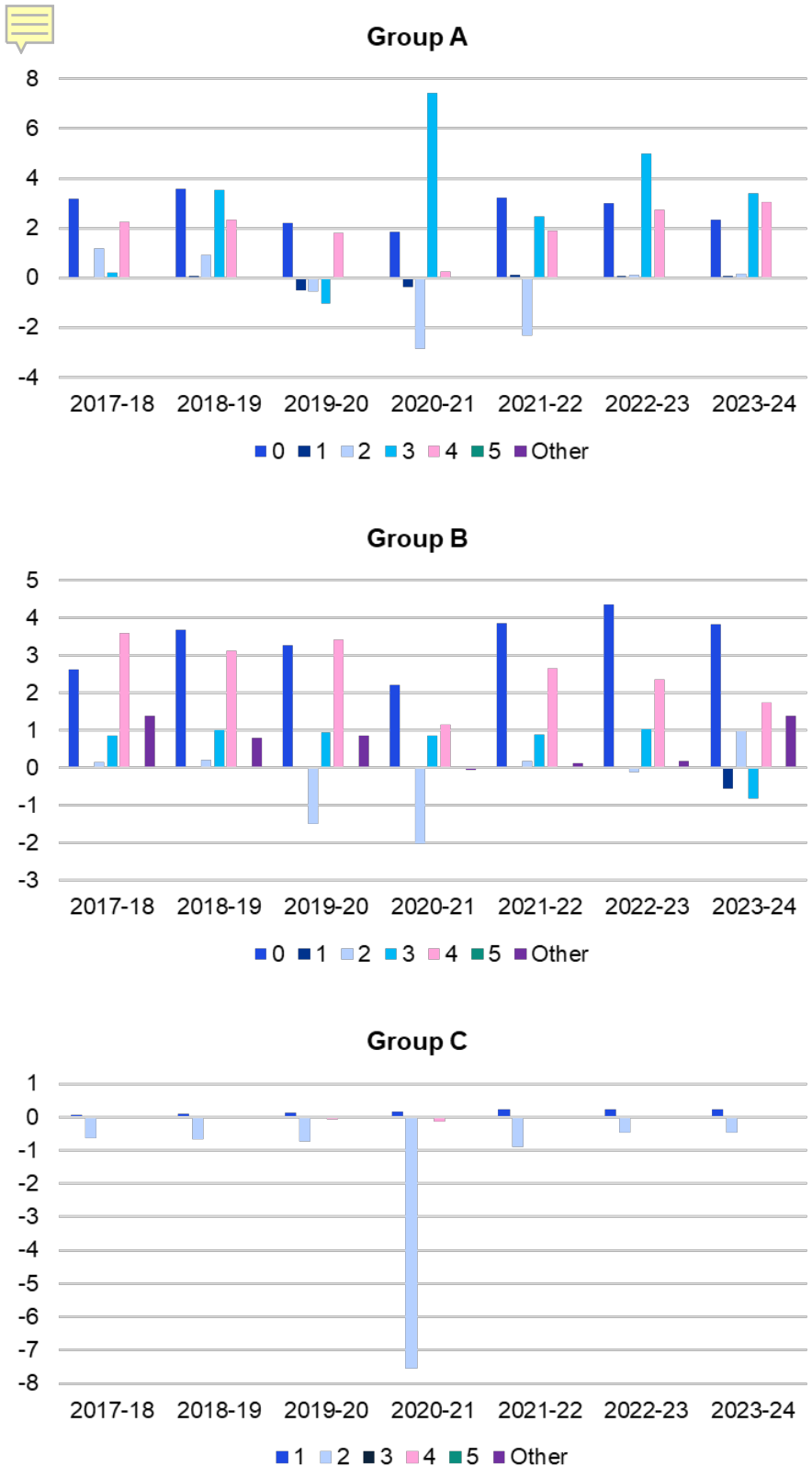
vii. TRAC data for 2022/23 and 2023/24 is currently unavailable. Therefore, analysis of the impact of residences on the allocation of EBITDA for MSI was not able to be carried out.

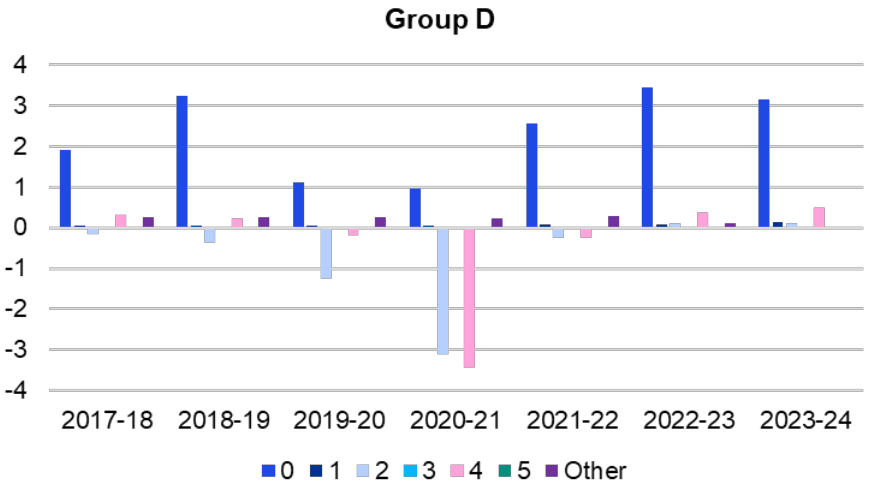
viii. The years of data requested meant that six-year averages were not able to be calculated in line with how EBITDA for MSI is calculated within TRAC. Therefore, adjustments made to the allocation of EBITDA are not fully in line with how the TRAC return is calculated.

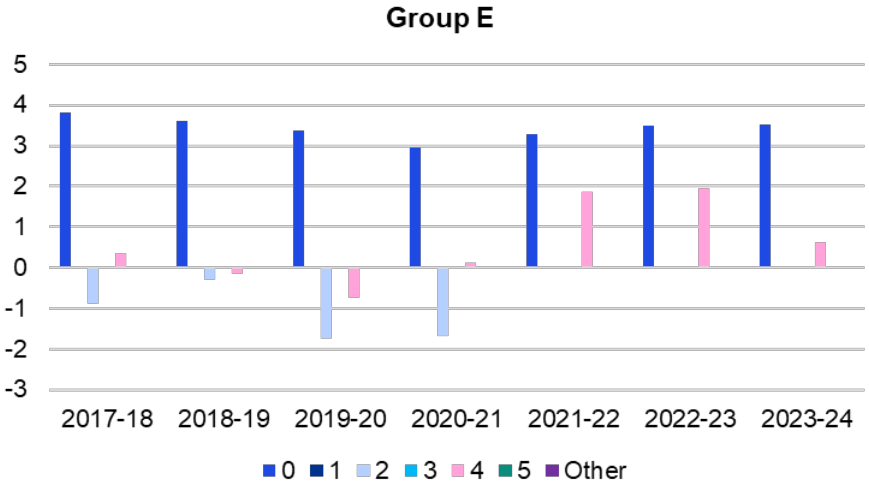
G.2 Sensitivity analysis

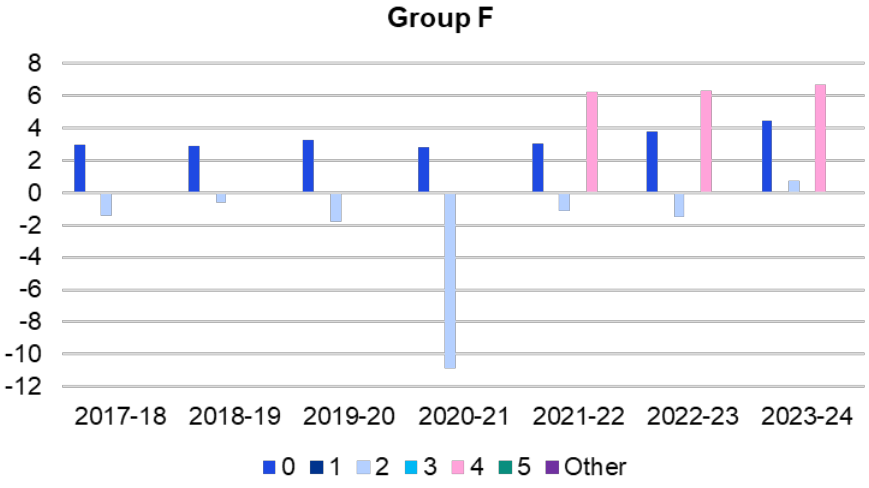
G.2.1 The results are consistent across peer groups. Figures 28-33 below show the Average Residences EBDITA for MSI per room by type (£000s)

Figure 23: Average Residences EBDITA for MSI per room for each peer group (£000s)









G.2.2 Comments

i. The results are generally consistent with the collated analysis. Some peer groups with a limited number of respondents are subject to bias.

ii. The impact of Covid years 2020-21 is present in each peer group, driven by low occupancy. As well as the impact on Type 2 through rental/nomination agreements:

a. The impact on Group A, Type 3 is driven by high operating revenues.

c. The impact on Group C, Type 2 is driven by high operating expenses and reduced average occupancy percentage (dropped to 40% from 100%).

d. The impact on Group D, Type 4 is driven by low occupancy and reduced revenue.

G.3 Sensitivity analysis was carried out where data limitations may distort findings

G.3.1 We removed data from two institutions so as not to ensure they did not distort the results, as follows.

i. One institution that incurred significant expenses for remedial works.

ii. Another institution that was not able to identify average occupancy rate during 2019-2021 due to the impact of Covid.

G.3.2 Sensitivity analysis on these removed institutions was carried out and equivalent graphs with these institutions included are presented here.

i. Figure 24 shows that including spend on remedial works has a significant impact on Residences EBITDA for MSI (for Type 2). Whilst this is a one-off impact, its inclusion in TRAC summaries would significantly distort EBITDA for MSI. The TRAC return for this institution shows significant deficits in 2020/21 and 2021/22 that feed into their EBITDA for MSI calculation.

ii. Figure 25 removes distortion in the ‘Other’ type as data was only available for years 2017/18, 2018/29, 2022/23 and 2023/24. Therefore, the graph does not see a smooth increase between years and shows a spike in 2023/24.

Figure 24: EBITDA for MSI highlighting impact of remedial works (£000s)

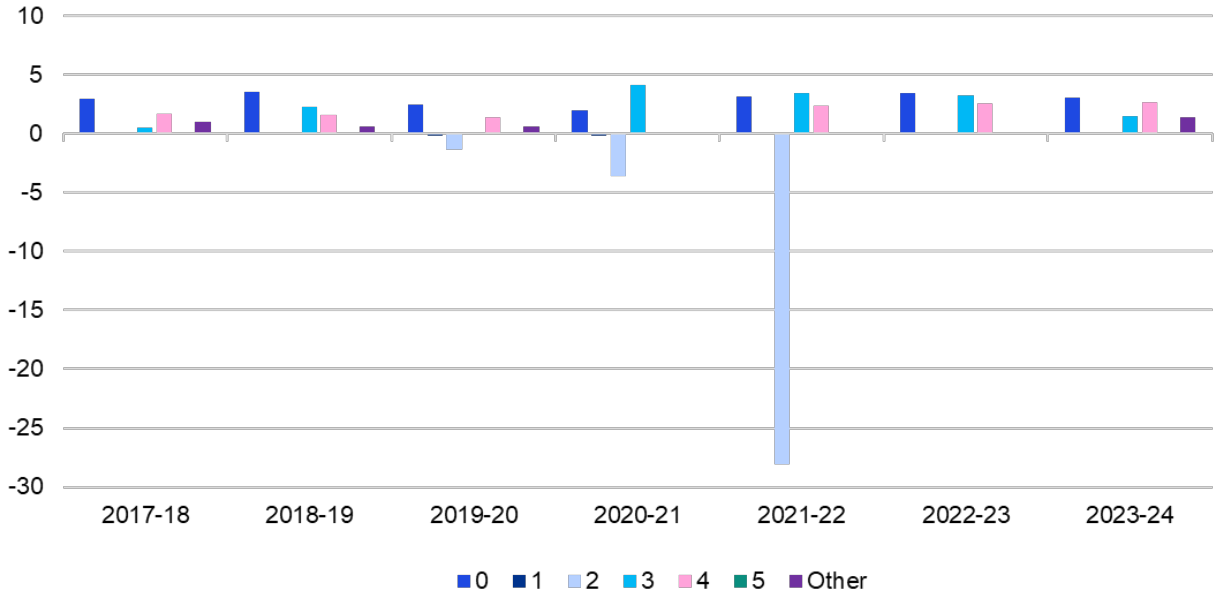
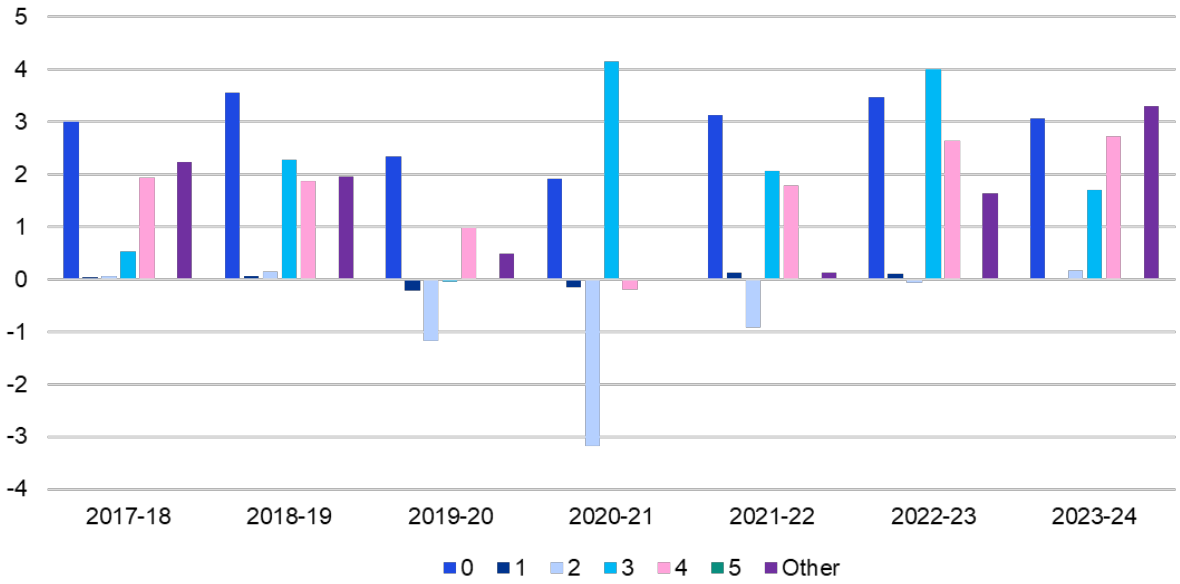


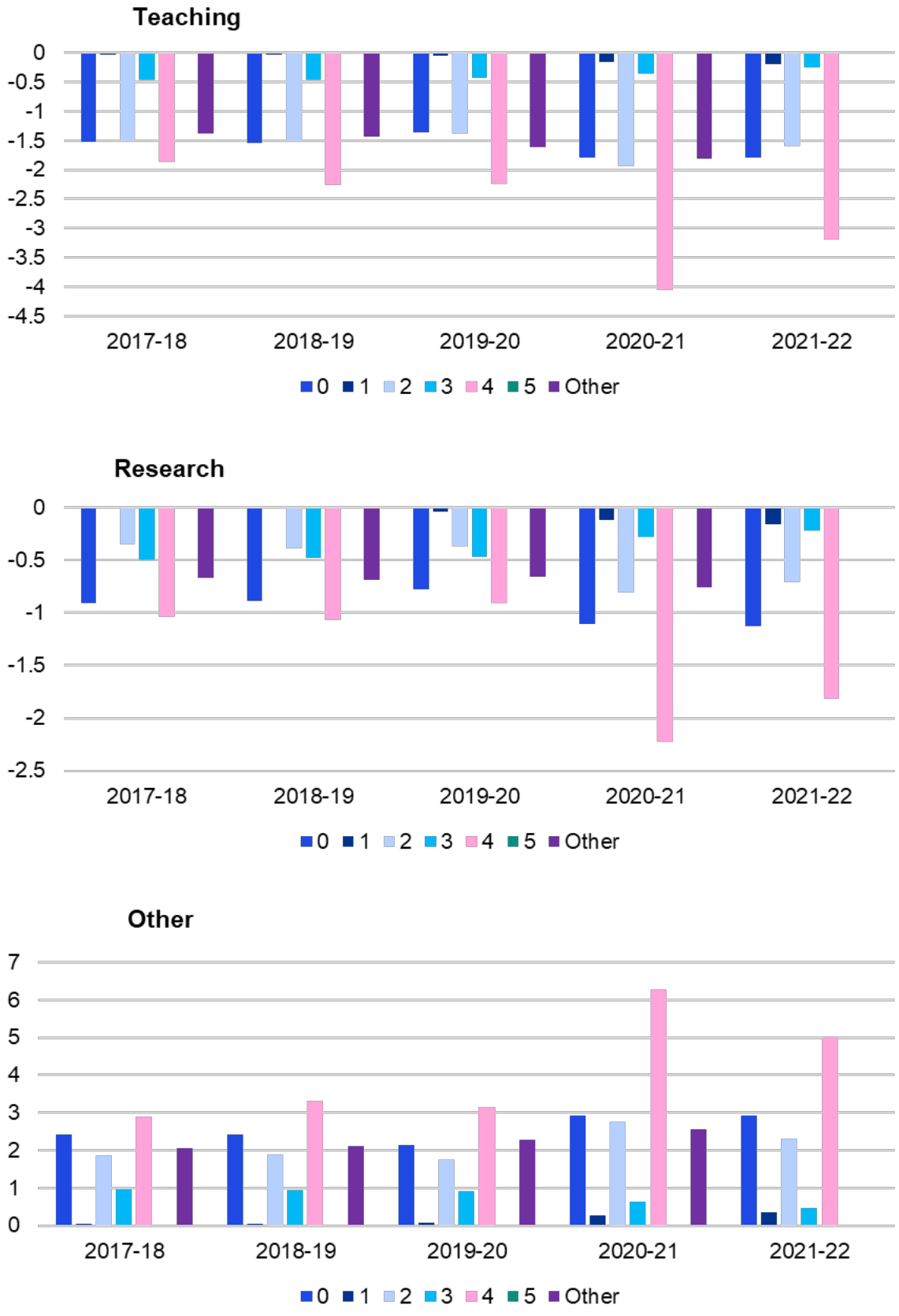
Figure 25: EBITDA for MSI highlighting irregular pattern in Other type due to Covid (£000s)



G.4 Allocation of EBITDA for MSI analysis detail

G.4.1 Residences decrease the percentage allocation to Teaching and Research. The graphs below show the average impact of including residences arrangements in TRAC on the percentage allocation of EBITDA for MSI to each TRAC category, measured in absolute percentage point difference, per type, across the five-year period for which TRAC data is available. As all expenditure on residences is recognised in Other, the percentage allocation of EBITDA for MSI to Other is increased, while the allocation to Teaching and Research is decreased, as compared to the counterfactual of no residences.

Figure 26: Percentage point change in allocation to Teaching, Research and Other for each year



i. Type 1 sees the lowest impact, which is in line with the principles of the MSI as the type involves a low level of expenditure.

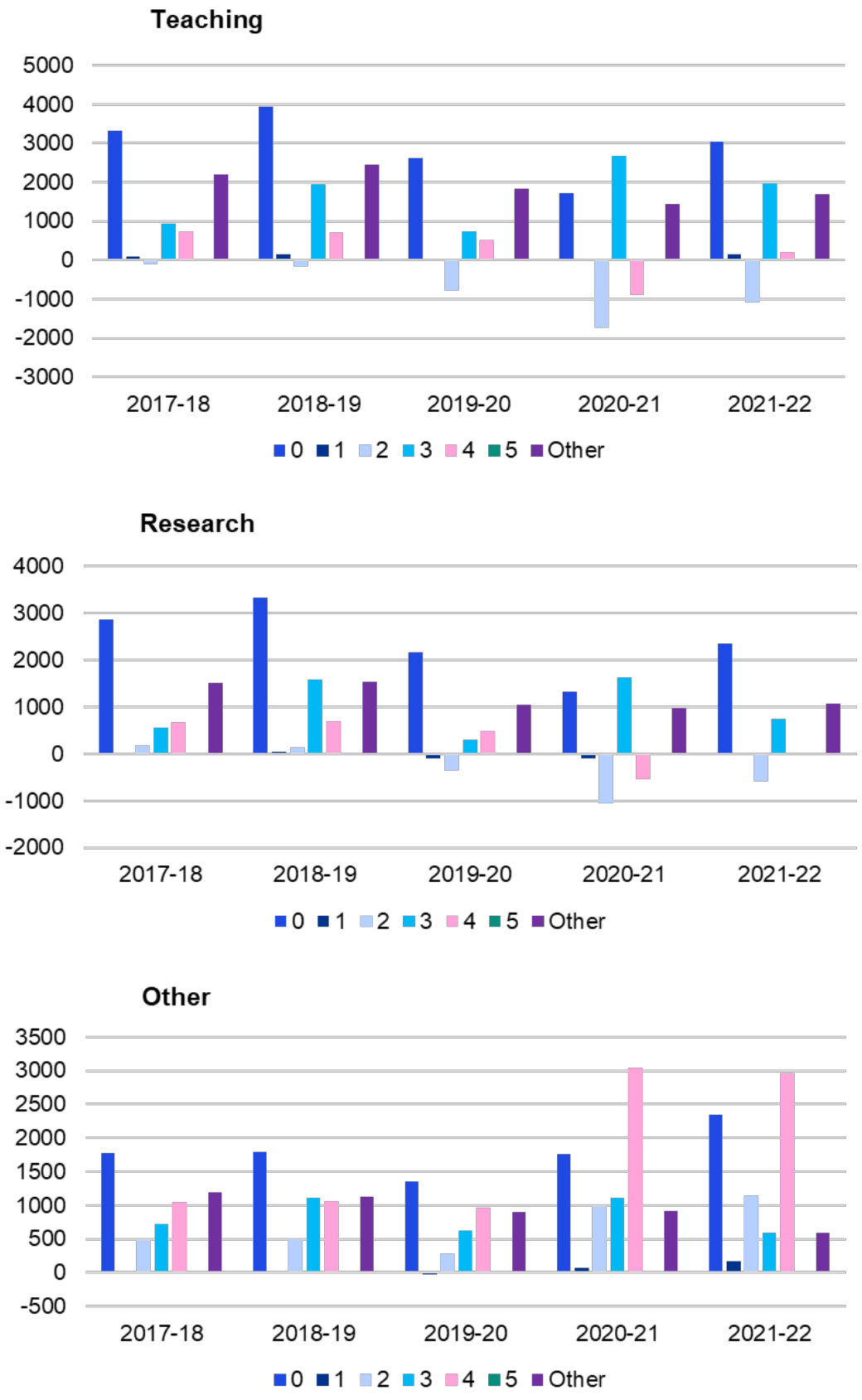
ii. Types 0, 2 and 3 are largely consistent. This aligns with expectations that the effect on allocation is consistent across arrangement types and these types involve similar total expenditure.

iii. The results for Type 4 in 2020/21 and 2021/22 illustrate data distortion driven by an institution that only had the arrangement in these years. This type increases depreciation and interest charges which feed into the TRAC expenditure, increasing the allocation to Other.

G.4.2 However, the analysis shows a distortion in the value allocation. Residence arrangements increase overall EBITDA for MSI, increasing the value allocated to Teaching, Research and Other. The graphs in Figure 37 below show the average impact on the allocation of EBITDA for MSI to each category, measured in absolute difference in EBITDA value (£000s), per type, averaged across the five-year period for which TRAC data is available.

G.4.3 The analysis shows that the absolute margin allocated to Teaching and Research is not independent of residences arrangement and therefore the allocation is distorted as a result of residences arrangements. In some cases, the impact on margin allocated to Teaching and Research is greater than that allocated to Other. The distortion is not consistent across residences arrangement types.

Figure 27: Average change in allocation of EBITDA MSI to Teaching, Research and Other for each year (£000s)



i. As Types 1, 2 and 3 have a lower impact on EBITDA for MSI (other than in the Covid period), they show a limited impact on the margins for Teaching and Research in most years.

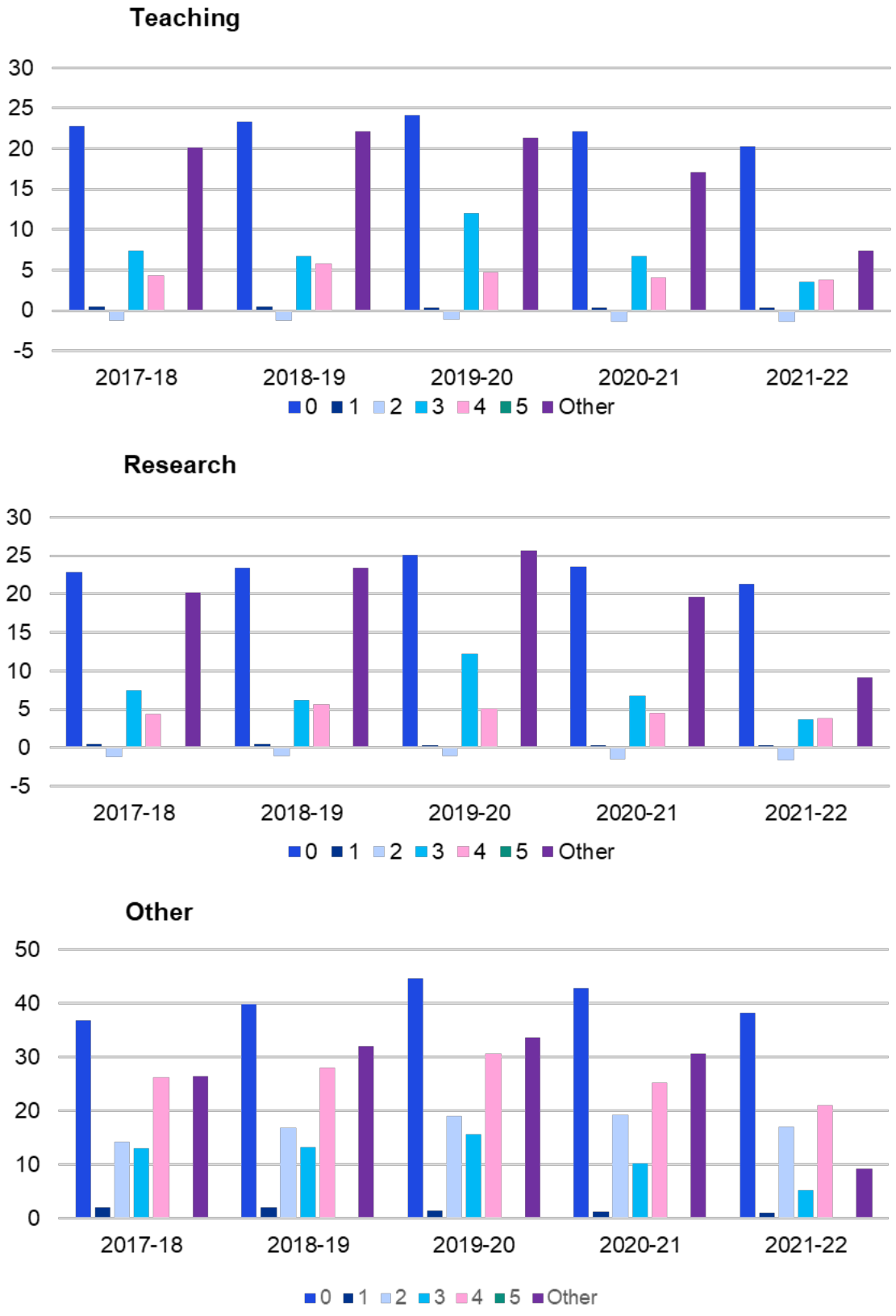
ii. Types 0, 4 and Other show significant distortions on the allocation of Residences EBITDA for MSI, driven by the higher levels of EBITDA for MSI for these types.

G.4.4 This change is material, particularly for Type 0. The graphs in Figure 38 below consider the materiality of the change in EBITDA for MSI value allocated to each category. They show that Residences EBITDA for MSI has a material impact on the EBITDA for MSI allocated to Teaching and Research, with the impact in Type 0 (which approx. 70% of institutions hold) and Other being the most significant. The average change in value of allocation upon removing arrangement is calculated by Equation 5.

Equation 5: Average change in value of allocation

$$change\ in\ value\ of\ allocation = \frac{change\ in\ allocation\ value}{initial\ value\ allocated\ (\%)}$$

Figure 28: Change in allocation value (%) to Teaching, Research and Other for each year



Annex H. Output of residences analysis Phase 1 and Phase 2

H.1 Recommendations from Phase 1

Table 30: Recommendations on adjustments to be made and allocation methodology applied to EBITDA for MSI

	Detail – outcome from April 2022 report	Current treatment	Proposed treatment
4(a) - (d)	a) Funders may wish to consider whether they continue to agree with the assumption used for the treatment of endowments in the MSI calculation. b) Funders may wish to consider whether they continue to agree with the assumption used for excluding capital grants from the MSI calculation. c) Funders may wish to consider amending the MSI guidance to deduct capital donation income from EBITDA. d) Funders should consider changing the TRAC requirements to not require MSI to be allocated to the 'Other (non-commercial)' category.	a) Receipt of new permanent endowments is adjusted out of EBITDA for MSI, but the finance income is included. Expendable endowments are not adjusted for. b) Capital grants are excluded from EBITDA for MSI. c) Capital donation income is not adjusted for. d) MSI allocated to all categories, including 'Other (non-commercial)', by expenditure.	a) Continue with the existing treatment of endowments in the MSI calculation. b) Continue to exclude capital grants from EBITDA for MSI but consider whether an adjustment is necessary where capital grants fund operational expenditure. c) Adjust for capital donation income only when it meets our proposed materiality criteria. d) No longer allocate MSI to the 'Other (non-commercial)' category
9	Funders may wish to consider whether an alternative basis of allocating the MSI should be adopted. Some options have been modelled, but consideration would need to be given to whether adopting a basis of allocation that more directly reflected the estates	MSI is allocated based on proportion of TRAC expenditure.	MSI to continue to be allocated based on proportion of TRAC expenditure, as gathering significant additional data for a more accurate allocation would be complex and costly (for example, the valuation of intangible assets).

	Detail – outcome from April 2022 report	Current treatment	Proposed treatment
	expenditure of institutions would be appropriate to future financing strategies and risks.		
10	Funders and regulators may wish to undertake a further data collection exercise to assess any relationship between residences arrangements and the levels of MSI, as this may inform a different basis of allocation.	No consideration is given to residences arrangements in allocating MSI currently.	Based on illustrative modelling of BUFDG case studies for service concession arrangements, residences agreements could inappropriately impact the level and allocation of MSI. We recommend gathering further data to confirm this and assess the materiality of any changes.

H.2 Summary of conclusions from Phase 2 of the residences analysis

Table 31: Summary of conclusions from Phase 2

Key question		Conclusions
1	**Do residency arrangements impact the level of EBITDA for MSI, and is this commensurate with the risk assumed?**	The results of our analysis of institutions' data on residences shows that some residences arrangements do distort EBITDA for MSI for the sample of institutions that submitted data under certain arrangement types. **Type 2** (rental and nomination agreements): Under these agreements, the institution takes on occupancy risk. Should occupancy fall significantly, the institution may be exposed to significant losses. This occurred during the Covid period and led to a significant negative EBITDA, which distorts the overall picture of EBITDA for MSI for this type. **Type 4** (recognising the asset on the balance sheet despite not owning it): Operating expenditure is effectively brought below the line of (so costs are not recognised in) EBITDA as the institution incurs finance charges where the third party covers operating expenditure. This means that EBITDA is higher than expected as expenditure is not recognised in EBITDA for MSI.
2	**Do residence arrangements distort the allocation of EBITDA for MSI to Teaching and Research?**	The results of our analysis of TRAC allocation when adjusting for institutions' residences data shows that the absolute value of EBITDA for MSI allocated to Teaching and Research increases with the inclusion of residences. This is not aligned with expectation that an increase in margin under Other should not have an effect on the absolute margin applied to the other categories, as no changes to risk or expenditure have been made to Teaching and Research. Where the allocation value to Teaching and Research increases, this presents a distortion as it unduly impacts the recovery of fEC and charge-out rates for these categories. This arises as a result of residences activities earning a higher margin than Teaching and Research activities. This distortion is greatest for Type 0, where there is the most significant level of residences EBITDA.
Other potential issues with residences		Although out of scope for this phase of work, concerns were brought forward by some institutions during the data gathering stage regarding the revaluation, sale and execution of remedial works of residences assets. These have potential to distort the TRAC results for institutions and may require further investigation, although we have no data on the scale of this issue.

H.3 Recommendations from Phase 2 of the residences analysis

Table 32: Summary of recommendations from Phase 2

Key question		Recommendations
1	**Do residency arrangements impact the level of EBITDA for MSI, and is this commensurate with the risk assumed?**	The following potential adjustments could be made to minimise the distortion to the level of EBITDA for MSI: Consider adjustments to Type 2 for exceptional losses resulting from extenuating circumstances such as Covid. For Type 4, make adjustments for residences interest expenses to bring associated expenses above the line of EBITDA. This may require residences expenditure to be recognised separately as a subcategory of Other, consistent with suggestions made by institutions in response to survey questions (see Annex B). These adjustments will require more granular data on residences to be collected as part of TRAC returns.
2	**Do residence arrangements distort the allocation of EBITDA for MSI to Teaching and Research?**	To minimise the distortion of the allocation of EBITDA for MSI to Teaching and Research, we recommend that Residences EBITDA and expenditure is calculated separately from the rest of MSI EBITDA and Costs. They can be allocated directly to a new Residences subcategory within Other. EBITDA for MSI (exc. Residences) can then be allocated between Teaching, Research and Other (exc. Residences) according to the current methodology. These suggestions are consistent with suggestions made by institutions in response to survey questions (see Annex B). These adjustments will require more granular data on residences to be collected as part of TRAC returns.
Other potential issues with residences		Consider further analysis into the impact of revaluation, sale and remedial works on institutions' EBITDA for MSI. This may involve considering the wider TRAC calculations and the adjustments made for gain/loss on sale of fixed assets.

kpmg.com/uk