



Margin for Sustainability and Investment: analysis of 2016-17 data

A report by the
Sustainability Metrics Steering Group

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1. Executive Summary

1. This document summarises the analysis of the Margin for Sustainability and Investment (MSI) data reported through the 2016-17 annual Transparent Approach to Costing (TRAC) returns to UK higher education funding bodies. This follows the adoption of the MSI in place of the two sustainability adjustments used up to 2015-16 for calculating TRAC full economic costs (or full sustainable costs) – the Infrastructure Adjustment (IA) and the Return for Financing and Investment (RFI).

Background (Section 2)

2. Up to and including 2015-16, the TRAC methodology used two sustainability adjustments, the IA and the RFI, to present the 'full economic cost' (fEC) of activities. Following a series of pilot studies, in November 2017 the Financial Sustainability Strategy Group (FSSG) recommended to the UK higher education funding bodies that the MSI be adopted to replace the IA and the RFI in TRAC from 2016-17.

Annual TRAC reporting (Section 3)

3. A total of 159 institutions completed the MSI section of the Annual TRAC Return. The weighted mean MSI for the UK sector as a whole was 9.8% in 2016-17 compared with 9.1% for 2015-16 (after 2015-16 data were revised to reflect the updated EBITDA calculation adopted for use in 2016-17). The median MSI was also somewhat higher than in 2015-16 (10.6% compared with 9.7%), with the range and spread of MSI percentages being similar. The full results for 2016-17 are summarised in Table 1, compared with the results for the prior year.

4. The Sustainability Metrics Steering Group (SMSG) also found that, as in previous years, when expressed as a proportion of TRAC expenditure, the MSI was on average higher than the total of the RFI and IA adjustments as used up to 2015-16 (see Table 2). However, as has previously been highlighted, the former RFI calculation included factors that had not been updated since it was introduced in 2006. When those factors were updated as part of the pilot study completed in 2015-16¹, the combined sustainability adjustments were considerably higher and in line with the overall level of MSI.

Summary and conclusions

5. MSI as reported through TRAC in 2016-17 is consistent with prior years, with a similar range and average, other than where the implementation of new accounting standards from 2015-16 onwards resulted in additional volatility. At institutional level there are a range of results, reflecting the fact that different institutions have different financial strategies and investment needs, and that the forecast timeframe for the MSI calculation is relatively short. MSI will also change over time as each institution's financial strategy and investment needs change.

6. As previously noted, because MSI is institution specific and in each case is calculated on a different basis, on average the MSI results in a different (higher) absolute figure from that

¹ Report on the implementation of the Margin for Sustainability and Investment, (SMSG, November 2017) <http://webarchive.nationalarchives.gov.uk/20180405125234/http://www.hefce.ac.uk/funding/finsustain/projects/msi/>

calculated by the former (unrevised) sustainability adjustments. When the factors used in the calculation of the sustainability adjustments are updated, the average MSI result is similar to that calculated for RFI and IA adjustments combined.

7. Based on these and other considerations, SMSG reported to FSSG that that there was no need for a change in the approach used in 2016-17 for calculating MSI or for allocating MSI to the TRAC activities. Based on the recommendation of SMSG, FSSG concurred with this conclusion and noted that a review after three years, as had been agreed in 2017, should remain the preferred approach. FSSG also noted that additional guidance for governing bodies, senior management and TRAC practitioners would be beneficial to provide explanation of the changes to sustainability adjustments and charge-out rates, and to encourage further discussion on financial sustainability.

2. Introduction

8. The Transparent Approach to Costing (TRAC) is an activity-based costing system that takes institutional expenditure information from financial statements, adds 'sustainability adjustments' to represent the full 'sustainable' cost of delivery, and then applies cost drivers (such as academic staff time allocation and space usage) to allocate these costs to academic departments and to specific activities such as Teaching, Research and Other.

9. Up to and including 2015-16, the TRAC methodology used two adjustments, the Infrastructure Adjustment (IA) and the Return for Financing and Investment (RFI), to present the 'full economic cost' (fEC) of higher education institutions' activities. These adjustments were designed to account for the fact that the 'real' cost of higher education activity is higher than the historical expenditure stated in most institutions' published financial statements. The two adjustments were used as a proxy to reflect these additional economic costs for sustainability of the activities.

10. Following a series of reviews (including the RCUK and Universities UK report 'Financial Sustainability and Efficiency in Full Economic Costing of Research in UK Higher Education Institutions' (the Wakeham report))² and pilot studies³ to inform the future direction for sustainability reporting by institutions to their respective funding councils, the Financial Sustainability Strategy Group (FSSG) recommended in November 2017 that a new financial metric – the Margin for Sustainability and Investment (MSI) – be adopted as a replacement for the current proxy measures (the RFI and the IA).

11. MSI was therefore implemented for the first time in TRAC for 2016-17 as a replacement for the IA and RFI. The following report summarises the analysis of the results of the MSI calculations included in the 2017 Annual TRAC returns to UK HE funding bodies. The analysis included an appraisal of the impact of adopting MSI on the overall TRAC results and on the research cost charge-out rates. The evaluation has been carried out by the TRAC Support Unit for the SMSG⁴.

12. Further background to the introduction of the MSI, and copies of the pilot studies referred to above, can be found at

<http://webarchive.nationalarchives.gov.uk/20180405125234/http://www.hefce.ac.uk/funding/finsustain/projects/msi/>.

² The Wakeham report on the sustainability and efficiency of research was published by RCUK and UUK in June 2010.

³ The results of the 2013 pilot are reported in: Financial Sustainability Strategy Group, *Evaluation of the Annual Sustainability Assurance Report pilot*, March 2015. The results of the 2014 pilot are reported in: Financial Sustainability Strategy Group, *Report on the evaluation of the 2013-14 Annual Sustainability Assurance Report pilot*, January 2016. The results of the 2015 pilot are reported in: Financial Sustainability Strategy Group, *Report on the evaluation of the 2014-15 Annual Sustainability Assurance Report pilot*, September 2016. The results of the 2016 pilot are reported in *Report on the implementation of the Margin for Sustainability and Investment* (SMSG, November 2017).

⁴ Initial analysis of Annual TRAC data was completed by the former HEFCE Analytical Services team. Additional commentary and comparative analysis has been prepared by KPMG.

3. Analysis of 2016-17 Margin for Sustainability and Investment (MSI)

13. A total of 159 institutions completed the MSI section of the Annual TRAC Return. The results are summarised in Table 1, compared with the results for the prior year.

Table 1. Summary of MSI results for 2016-17

	2015-16 MSI % (as originally reported)	2015-16 MSI % (revised)*	2016-17 MSI %	Difference (2016-17 compared to 2015-16 revised)
Mean (weighted) (on income basis)	11.7%	9.1%	9.8%	0.7%
Median (on income basis)	11.7%	9.7%	10.6%	0.9%
Minimum	-1.3%	-14.8%**	-3.8%	
Maximum	33.3%	26.4%	23.3%	

* MSI revised to reflect the updated EBITDA calculation used in 2016-17⁵.

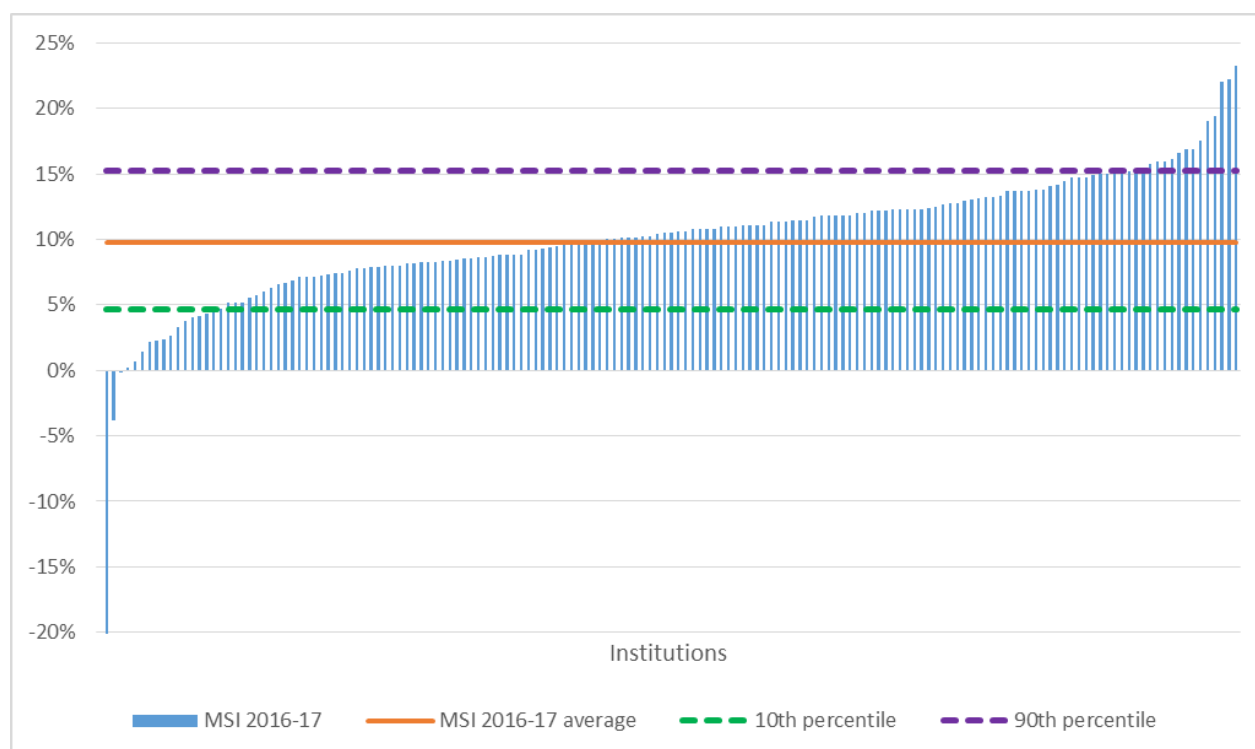
** Three institutions had negative MSI when revised. These are included in the averages quoted in the table.

14. The weighted mean for the 60 most research intensive institutions was somewhat lower than the average MSI for all institutions (at 9.1% compared with 9.8%). The median MSI was very similar (10.5% for the 60 most research intensive institutions and 10.6% across all institutions). The maximum MSI within the group of the 60 most research intensive institutions population was significantly lower than for the sector as a whole (15.4% compared with 23.3%).

15. The spread of individual institutional MSI percentages reported from lowest to highest, compared to the sector average MSI, is shown in Figure 1. Only a small number of institutions reported an MSI percentage outside a 'core' range of 5% to 15%.

⁵ Details of the revisions to the EBITDA calculation and the revised MSI were included in the *Report on the implementation of the Margin for Sustainability and Investment* (SMSG, November 2017)

Figure 1. Spread of institutional MSI 2016-17



16. In 2017 FSSG agreed the use of the 10th and 90th percentiles as the upper and lower thresholds for providing commentary to support the calculated charge-out rates. Using the 2016-17 MSI, the 10th percentile was 4.7% and the 90th was 15.2%.

17. When expressed as a proportion of TRAC expenditure, the MSI was (as the pilot studies have shown) on average higher than the total of the RFI and IA adjustments as used up to 2015-16 (see columns (a), (b) and (c) in Table 2). However, as has previously been highlighted, the former RFI calculation included factors that had not been updated since 2006. When those factors were updated as part of the pilot study completed in 2015-16⁶, the combined RFI and IA adjustments were considerably higher and in line with the level of MSI (see columns (d) and (e) in Table 2).

⁶ Report on the implementation of the Margin for Sustainability and Investment (MSG, November 2017) www.hefce.ac.uk/funding/finsustain/projects/msi/

Table 2. MSI expressed as a proportion of TRAC expenditure

	2015-16 MSI	2015-16 Sustainability adjustments (RFI and IA)		2016-17 MSI	
	Calculated per Annual TRAC return (a)	Revised with updated EBITDA calculation (b)*	Calculated per Annual TRAC return (c)	Revised with updated factors (d)**	Calculated per Annual TRAC return (e)
EBITDA (£'000)	3,989,071	3,031,870	2,549,216	3,236,521	3,393,287
TRAC Expenditure (£'000)	32,547,870	32,547,870	31,728,113	31,728,113	34,504,979
% of expenditure	12.3%	9.3%	8.0%	10.2%	9.8%

* MSI calculation using revised EBITDA adjusting for capital grants and endowments.

** Revised to reflect the estimated impact of updating the factors used in the calculation of the RFI in the method of calculating the sustainability adjustments as used up to 2015-16.

18. The methodology used to calculate MSI for 2016-17 required the use of three prior years' actual results (2014-15 to 2016-17) and three years' projections (2017-18 to 2019-20). This approach was adopted to help ensure that the MSI was based on what is known to be achievable through past results and what is reasonably foreseeable. The use of an average reflects the fact that this is a medium-term assessment which will be updated each year on a rolling basis and should not be dominated by fluctuations in performance from year to year.

19. Further analysis considered the consistency of the MSI calculation in 2016-17, assessing whether calculating MSI using an alternative to the current six-year average of EBITDA using only historical, or only forecast years, would result in a material change in the MSI. This analysis found that whether using solely historical EBITDA or solely forecast EBITDA, the average result across the sector remained very similar, although there was more variability in individual institutional results.

20. The range of individual institutional MSI results and the factors in the overall level of MSI were also considered as part of the analysis of the 2016-17 results. As noted in previous pilot studies, at institutional level there is a range of results reflecting the fact that different institutions have different financial circumstances, financial strategies and investment needs.

Movements in research charge-out rates

21. It was always anticipated that the research charge-out rates for indirect and estates costs calculated in 2016-17 TRAC returns would be different to those calculated in 2015-16 due to a range of factors. The key factors are set out below.

- **MSI implementation** – as noted above, the MSI adjustment is on average higher than the total of the RFI and IA sustainability adjustments as used up to 2015-16 (albeit that the RFI in particular was based on outdated metrics and when updated factors are used the former sustainability adjustments result in a similar total adjustment) (see Table 2).

- **Changes in institutional cost base** – The 2015-16 charge-out rates calculated in the 2015-16 Annual TRAC return were not used, as it was the first year of FRS102 being implemented. Instead, the 2014-15 rates were used in the costing of Research Council bids with an additional year's indexation (i.e. three years indexation in total). Therefore the rates calculated in 2016-17 reflect an increase in the overall institutional cost base of 11.2% between 2014-15 and 2016-17. Total TRAC expenditure in 2014-15 was £31,028 million, increasing to £32,957 million in 2015-16 (an increase of 6.2%), and to £34,516 million in 2016-17 (a further increase of 4.7%).
- **Implementation of FRS 102** – included within the above there is an impact on institutional costs of the implementation of the new accounting standard FRS 102 (which was implemented in financial statements from 2015-16, but not reflected in the charge-out rates used from April 2017) and changed approaches to accounting for endowments, donations, capital grants and pensions in particular.
- **Changes in staff numbers (Research FTEs)** – have an impact on the charge-out rates. Research full time equivalents (FTEs) used in indirect rates increased by 3.9% between 2014-15 and 2016-17, with significant variation between institutions.
- **Allocation methodology** – a different approach to allocating the MSI between Teaching, Research and Other, and to the Indirect and Estates cost pools.

22. Overall figures, as set out in Table 3, show no significant change in the allocation of MSI to Research when assessed on a percentage of cost basis (a 0.6% increase). However the total value of the MSI allocated to research has increased compared to the old cost adjustments in line with the overall increase in MSI compared to the old cost adjustments.

Table 3. Allocation of MSI to research⁷

	Teaching	Research	Other	Total
Combined RFI and IA adjustments allocated (£'000) (2015-16)	1,230,779	836,609	480,641	2,548,029
Combined RFI and IA adjustment allocated (%) (2015-16)	48.3%	32.8%	18.9%	
MSI allocated (£'000) (2016-17)	1,745,471	1,134,186	513,629	3,393,287
MSI allocated (%) (2016-17)	51.4%	33.4%	15.1%	

23. The data show some significant movements in the charge-out rates for some institutions. 15 institutions reported a reduction in their indirect rate compared with 2015-16, compared with 96 which reported an increase. Conversely, rather more institutions reported reductions in their

⁷ Figures in this table may not sum due to rounding

estates rates compared with those that saw increases, suggesting the changed approach to allocating the MSI between charge-out rates had driven more cost to indirect rates.

24. The comparison of 2016-17 charge-out rates to prior years' rates is most useful when the comparison is with the composite movement in the indirect rate plus the estates lab rate, and the indirect rate plus the estates non-lab rate. This approach allows us to see the overall effect on rates to reflect the fact that there has been a shift from the estates to the indirect rate as a result of the basis of allocating the MSI. Table 4 shows a profile of the number of providers and the change in rates when indirect and estates rates are combined. The table shows the profile of the change from the 2014-15 (three year indexed) rates to the 2016-17 rates; and the change from the 2014-15 (three year indexed) rates to the rates calculated for 2015-16 (but not applied in calculating Research Council grant awards).

Table 4. Change in research cost rates

Change between 2014-15 (with three years indexation) and 2016-17 rate	Number of providers		Change between 2014-15 (with three years indexation) and 2015-16 rate	Number of providers	
	Indirect and Lab rates combined	Indirect and Non-Lab rates combined		Indirect and Lab rates combined	Indirect and Non Lab-rates combined
<0%	18	18	<0%	51	50
0-10%	37	32	0-10%	38	40
10-20%	22	17	10-20%	19	14
20-30%	21	22	20-30%	0	4
30-40%	8	16	30-40%	3	2
>40%	5	6	>40%	1	2

25. A total of 44 institutions have seen an increase in their combined indirect and non-lab rates of more than 20% (22 of these were institutions included in the 60 most research intensive). Some analysis of those institutions with increases of more than 40% has been carried out. As noted above, there were a range of factors leading to the increase in rates, but no common pattern. The increase in rates was in part a result of the impact of FRS102 on the cost base, in part a result of general increases in expenditure and in part a result of the difference in MSI compared to the old cost adjustments. Movements in the number of research FTEs were also a factor.

26. SMSG has considered whether an alternative basis of allocating the MSI would be preferable. This consideration took account of an alternative and more detailed basis for allocating the MSI which was considered and tested in January, allocating finance charges and depreciation elements of MSI on alternative bases. The outcome of this analysis was that although alternative approaches tended to reduce the indirect charge-out rates, they tended to have the effect of increasing estates charge-out rates significantly, without a definitive conclusion that this better represented the absorption of cost. The percentage of the MSI allocated to Research, as shown in Table 3, was also considered.

27. SMSG agreed on the basis of the evidence presented that there was no reason to change the basis of allocation.

Conclusions

28. Through the work of SMSG, FSSG concluded that there was no need for a change in the approach to calculating MSI or allocating MSI to the TRAC activities. FSSG noted that the MSI results reported through the 2016-17 TRAC returns were different to those in previous years, but could be understood by reference to the underlying data and that the MSI calculation was operating as anticipated from the previous pilot studies.

29. The group reconfirmed that a review of the key elements relating to the implementation of MSI should take place after three years, as had been originally agreed by FSSG in 2017.

Annex A

Glossary of terms

BUFDG	British University Finance Directors Group
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
fEC	Full Economic Cost
FRS	Financial Reporting Standard
FSSG	Financial Sustainability Strategy Group
HEFCE	Higher Education Funding Council for England
IA	Infrastructure Adjustment
MSI	Margin for Sustainability and Investment
RCUK	Research Councils UK
RFI	Return for Financing and Investment
SMSG	Sustainability Metrics Steering Group
TRAC	Transparent Approach to Costing
UK GAAP	United Kingdom Generally Accepted Accounting Practice
UKRI	United Kingdom Research and Innovation