

Independent evaluation of the OFT's 2006 market study into the Commercial Use of Public Information (CUPI)

A report by DotEcon for the CMA
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1. Summary

- 1.1 The evaluation team in the Competition and Markets Authority (CMA) has a wide-ranging remit to evaluate the impact of CMA's work and that of its predecessor authorities, the Competition Commission (CC) and the Office of Fair Trading (OFT). As part of its performance framework with the Department of Business Innovation and Skills (BIS), the CMA is required to undertake at least two in-depth ex-post evaluations of previous decisions, including at least one market study or investigation.¹ As the CMA only came into being on 1 April 2014, its ex-post evaluation work for the 2014/15 business year will focus on decisions taken by one of its predecessor organisations.
- 1.2 One of the functions of these evaluations is to help understand whether and how projects have achieved the desired impact, and whether the outcomes could be further improved. Findings from such evaluations are useful in identifying lessons that can be applied to future comparable interventions.
- 1.3 The CMA has commissioned an evaluation of the impact of the OFT's market study into the commercial use of public information (CUPI).² The CUPI study was an extensive investigation of how public sector information holders (PSIHs) supplied information collected or managed in the course of their activities for commercial use and re-use. The study – launched in July 2005 with findings published in December 2006 – reflected the increasing recognition of the value of public sector information (PSI) for the economy.

Scope of this report

- 1.4 This report presents the outcome of this evaluation. Our focus is on assessing how the provision of PSI has changed since the CUPI study was published, what mechanisms have been responsible for these developments and specifically what role the OFT study has played in driving the changes we observe. Although we also try to provide an indication of the benefits that flowed from the OFT's intervention, our main emphasis is on trying to understand how the study and its recommendations have affected the PSI sector, and where the intended effects did not materialise why they did not.
- 1.5 Our task has been complicated by the fact that a substantial amount of time has passed since the OFT made its recommendations, and that many other factors have affected the development of the PSI sector, including policy

¹ BIS, 2014, 'Competition And Markets Authority: Performance Management Framework, January 2014', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/274146/bis-14-559-competition-and-markets-authority-performance-management-framework.pdf

² OFT, 2006, 'The commercial use of public information (CUPI)', <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>

initiatives that can be directly linked to the CUIPI recommendations, other policy initiatives (in particular the Government's Open Data agenda), technological developments and other changes that could have affected the value of, and demand for PSI (eg climate change increasing the value of weather data and environmental data such as flood risk information).

1.6 We have relied on extensive engagement with stakeholders – including policy makers, public sector bodies, PSIHs and PSI users – and a number of detailed case studies in order to assess the impact of the CUIPI recommendations on the PSI sector the behaviour of PSIHs. Appendix A includes a list of all the stakeholders with whom we have spoken in the course of our study. We would like to thank all of these parties for the assistance they have provided to us.

1.7 In our analysis we distinguish between:

- direct effects, which capture actions taken by PSIHs in response to the CUIPI recommendations addressed directly to them as well as actions taken by policy makers and changes in PSIH behaviour that are linked to these actions;
- indirect effects, which reflect changes in PSIH behaviour in response to policy initiatives that are not directly linked to the CUIPI recommendations (such as Open Data); and
- extraneous effects, which capture the impact of changes unrelated to the CUIPI (such as technological changes).

1.8 We have also sought to identify any residual problems in PSI markets. The presence of such residual problems could simply be the result of some of the recommendations made by the OFT not having been fully implemented. However, residual problems could also indicate that some of the recommendations were not effective in addressing the problems that the OFT had identified. Understanding why recommendations made as the result of a market study might not have worked as intended is an important aspect of any evaluation exercise if lessons are to be learned for the future.

The CUIPI study and its recommendations

1.9 The CUIPI study was based on a number of detailed case studies and an extensive survey of PSI users. It identified a number of shortcomings in how PSI was made available for re-use and the extent to which this allowed businesses to compete with PSIHs in the supply of value-added products and services. In broad terms, the OFT found the following problems:

- inadequate availability of what it termed ‘unrefined’ information, ie information of which the PSIH was the sole supplier and which could be used by third parties to create value-added products and services;
- overly restrictive licensing policies that could limit the ability of licensees to compete with the PSIH;
- inadequate quality of service, in particular in relation to the timeliness of providing information; and
- unduly high prices, often driven by insufficient awareness of the costs associated with providing unrefined information.

1.10 Many of these concerns identified by the OFT arose from the fact that PSIHs were the only source of unrefined information, and were exacerbated when a PSIH was itself also a supplier of value-added (or refined) products or services using the unrefined information as an input, as in this case there might be an incentive for the PSIH to leverage its monopoly position in the provision of unrefined information into the market for refined products. The OFT found that, because of these problems, around half of the potential value of PSI (around £1.1bn) remained unrealised.³

1.11 In order to address these problems and reduce the detriment it had identified, the OFT set out a number of recommendations both for Government and for PSIHs, building on the existing controls on PSIH activities that had existed at the time (in particular the Information Fair Trader Scheme and the Re-use of Public Sector Information Regulations). A number of particular recommendations were made in relation to Ordnance Survey (OS), which was found to be one of the largest PSIHs based on revenues and whose practices at that time gave rise to specific concerns.

1.12 Many of the recommendations echoed earlier findings (eg from the Review of Government Information, conducted in 2000 as part of HM Treasury’s Cross-Cutting Review of the Knowledge Economy), suggesting that even though concerns had been identified, little progress had been made in resolving them. Recognising this situation, the OFT was mindful of making recommendations that could be implemented relatively easily. Specifically, the OFT was looking for solutions that could be adopted without requiring primary legislation and that would not have significant financial implications for the Government.

³ See Annex G of the CUPPI report for more details. £400m of the value of the PSI to the economy was reflected in the revenues earned by PSIHs.

1.13 The OFT put forward around 20 recommendations of varying specificity. Overall, these recommendations were aimed at increasing the supply of unrefined information by asking PSIHS to draw a distinction between unrefined and refined information and making unrefined information available for any lawful re-use, in a timely manner and on terms that were not unduly restrictive. PSIHS should engage with users in order to improve the quality of their services. They should price unrefined information at no more than full cost (including an appropriate rate of return) and unrefined information should in any case be available at the same price to third parties as to the PSIHS's refined information operations. In order to give force to this recommendation, they should account separately for unrefined and refined activities and allocate costs accordingly. The IFTS should be strengthened by including these principles; its reach should be widened to include all PSIHS with sizeable revenues from the supply of PSI and OPSI should be responsible for ensuring compliance with these principles. To accommodate OPSI's extended remit, the resources available to the organisation should be increased, with the OFT pointing out that the cost of bolstering OPSI would be minimal compared with the untapped potential value of PSI.

Implementation of the CUIPI recommendations

1.14 The Government officially responded to the CUIPI study in June 2007 and welcomed many of its recommendations, though it made clear that some further work would be needed in particular to understand the impact of the suggested distinction between refined and unrefined information and the implications of suggested pricing policies, in particular for trading funds. The response to the CUIPI study was published together with the Government's response to the Power of Information (POI) review, which had been commissioned by the Cabinet Office shortly after the publication of the CUIPI report with the aim of identifying the potential social and economic benefits associated with making more PSI available. Specifically, the Government committed to undertake further work on trading fund charging policies, and reserved the right to consider any changes to these policies or changes to OPSI's role and funding only after this work had been completed. This meant that the main components of the remedies package put forward by the OFT were the subject of further assessment and review.

1.15 The work that followed consisted of the so-called Cambridge study,⁴ which looked at charging models for trading funds whose findings then flowed into the Trading Funds Assessment (TFA), undertaken by HM Treasury (HMT)

⁴ Newbury, D, L Bentley and R Pollock, 2008, 'Model of Public Sector Information Provision via Trading Funds', Cambridge University, <https://www.opsi.gov.uk/advice/poi/models-psi-via-trading-funds.pdf>

and the Shareholder Executive (ShEx). In addition, trading funds were asked to submit action plans for improving access to Crown Copyright information.

Direct effects

- 1.16 As anticipated in the Government's response of June 2007 to the CUPI report, the OFT was given the opportunity to comment on draft guidance prepared as part of HMT's work announced in April 2006 on the modernisation of 'Government Accounting'. The result of this work - 'Managing Public Money'⁵ - was issued by HMT in July 2007, shortly after the Government's response to CUPI and from October 2007 formally replaced 'Government Accounting' and the 1992 Fees and Charges Guide. Annex 6.2 of 'Managing Public Money' deals specifically with charging for information. It sets out the Government's policy on charging for information which recipients intend to re-use, explaining that 'raw' data should normally be licensed and charged for at marginal cost, whilst 'value-added' data would normally be charged at full cost including an appropriate rate of return. It also explains that all information provided by trading funds that recipients intend to re-use should normally be charged in the same manner as value-added data. It also explains that trading funds are free to allocate their fixed costs to the various products when pricing their information services. Though the provision of guidance meets one of the recommendations made by the OFT, the complete freedom given to trading funds to allocate costs as they see fit appears to be somewhat inconsistent with the principles set out in the CUPI report.
- 1.17 The Cambridge study, whose results were published in 2008, found that significant net economic benefits could be achieved by moving to marginal cost pricing policy for unrefined information held by a priority group of six large trading funds (OS, Met Office, UK Hydrographic Office, Companies House, DVLA and Land Registry). This could require a small increase in the funding requirements for the Met Office and the UK Hydrographic Office (less than £1m each). For OS a more substantial injection of public funds would be required (at around £30m per annum), though the net welfare change from moving to marginal cost pricing would be substantial.
- 1.18 The Cambridge study fed into the TFA, which was tasked with looking at the governance, business plans and future development strategies of all trading funds. The TFA set out key principles in relation to making information available at marginal cost wherever possible and accounting separately for

⁵ <http://webarchive.nationalarchives.gov.uk/20140402142426/http://www.of.gov.uk/OFTwork/markets-work/public-information>

different parts of the business, with OPSI providing ‘enhanced oversight’, but there is little evidence that these principles have been implemented.

- 1.19 The full results of the TFA have never been published, and it is difficult to establish what specific changes have been made as a result of this work other than in relation to OS, for which a new business plan was being produced in 2009. The new business plan resulted in substantial simplifications of the licensing model, replacing the large number of specific-use contracts with a simpler and less restrictive model (as the reduction in the number of contracts meant a broader definition of the type of use permitted under each contract) and offering greater flexibility to OS partners. Thus, the TFA produced some tangible changes at OS, though these were substantially delayed, considering that the OFT recommended that issues set out in relation to the OS should be resolved without delay.
- 1.20 Trading funds were required to submit to the Chief Secretary of the Treasury action plans setting out what they were planning to do to improve access to Crown copyright information. In practice, these action plans tended to emphasise existing activities and policies that purportedly already support making information accessible (such as complying with the recommendations made by OPSI in the IFTS verifications). On balance, the action plans do not indicate that important new initiatives were triggered by CUPI, though it is plausible that the OFT work accelerated some initiatives. It is unclear whether there was any comprehensive follow-up by HMT and/or OPSI once these action plans were received, and ultimately the ‘Making Public Data Public’ initiative largely superseded what was in these action plans.⁶
- 1.21 The principles underpinning the OFT recommendations are reflected in the revised IFTS (2009), where IFTS members are explicitly required to maximise the availability of PSI for re-use, to simplify their licensing and to take a proactive approach to encouraging innovative re-use. It is unclear, however, to what extent the revised principles have affected the behaviour of PSIHs, not least because OPSI’s powers in terms of enforcing any recommendations it might make are limited, and OPSI’s resourcing has not changed substantially since the CUPI study was published.
- 1.22 Overall, therefore, we find that while some of the OFT’s recommendations resulted in further actions and in some cases change, the OFT’s most substantive recommendations have not been fully implemented. The resulting market impact of the study falls short of the target that the OFT had aimed for and some of the competition concerns identified by the OFT remain. Where recommendations have been implemented, there have often been substantial delays pending the outcome of further work that was considered to be

⁶ BERR, 2010, 5th six-monthly CUPI Progress Report

necessary in order to establish the impact of the OFT's recommendations on the profitability of trading funds. The protracted nature of the Government's approach, with various parties being involved, appears likely to have delayed changes in response to CUPI that might otherwise have happened earlier.

- 1.23 We believe that a combination of reasons is responsible for these delays, the incomplete implementation of the OFT's recommendations, and thus their limited impact. These include competing interests and the influence of stakeholders such as HMT and ShEx; the perceived difficulty of applying some of the OFT's recommendations in practice (eg because of the difficulty in developing a systematic approach for establishing which of a particular PSIH's activities or products can reasonably be classified as unrefined and the funding implications of adopting recommendations in relation to pricing and accounting separation); and the limitations in the OFT's own follow-up competition advocacy work after the study was published, where after a period of close involvement with on-going work in the short term, resources, priorities and third-party interests appear to have shifted in a way that limited the OFT's ability to apply further pressure.
- 1.24 Nevertheless, there appears to be broad agreement that the CUPI study, through raising awareness of the benefits that could be realised if more PSI were made available, and highlighting the issues that would need to be resolved in order to achieve this, acted as a catalyst for further developments. Though their implementation has been rather patchy, the thrust of the OFT's recommendations – namely, the need to put in place measures that ensure that PSIHs provide access to information for which they are the sole supplier to re-users, without attempts to distort competition in the downstream markets through restrictive licensing or distortive pricing - has generally been accepted.

Indirect effects

- 1.25 Major changes in the supply of PSI have been brought about through a series of political initiatives took place from 2009 onwards to promote transparency and improve accountability of the public sector, including through the release of data by PSIHs as Open Data. This came in the wake of widespread controversy caused by the MP's expenses scandal, and also followed the US President's Memorandum on Transparency and Open Government.⁷
- 1.26 While the Open Data movement is independent of the CUPI study, it focuses not only on information that would help to improve transparency and increase accountability of the public sector, but is also concerned with generating

⁷ http://www.whitehouse.gov/sites/default/files/omb/assets/memoranda_fy2009/m09-12.pdf

economic benefits. Given the role that the CUPI study had played in terms of raising awareness of the (potential) economic value of PSI, it may be seen as having had a positive impact on the growth of Open Data and may have helped to accelerate developments.

- 1.27 Specifically, we find that the UK releases a relatively high volume of datasets that are likely to be particularly geared towards commercial re-use. This suggests that the value of PSI is an important factor in the UK's Open Data strategy. Thus, although the changes that have occurred since 2009 are not directly related to CUPI, they nevertheless reflect many of the CUPI study's principles in relation to the economic benefits of making PSI available more widely.

Residual problems

- 1.28 Our analysis of direct effects suggests that a number of measures have been taken in response to the recommendations made by the OFT, and that there is some evidence to suggest that PSIHs have responded, particularly by simplifying licence conditions and exploiting their data assets more actively. The subsequent push for Open Data has resulted in positive indirect effects, through a substantial increase in the amount of PSI available, and a reduction in the price of such information. However, there is evidence that a number of the key problems identified by the OFT persist.
- 1.29 For example, the review of public sector information commissioned by BIS in 2012 and completed in 2013 (the Shakespeare review) found that, although some progress had been made and the availability of information as open data had generated benefits, scope remained for further enhancing competition in the downstream market. It stated that 'restrictive licensing, applied to key PSI, limits the opportunity for businesses, especially SMEs, to make effective use of PSI as an underpinning business resource'. The review also noted that charging and funding remain highly contentious topics. Costs are not typically apportioned by dataset and views differ on exactly which revenues are relevant for PSI: 'there remains an element of subjectivity as to what constitutes a dataset and what constitutes a 'value-add' service – with some data owners arguing that what is being charged for is not the PSI itself, rather its interpretation and analysis.'⁸
- 1.30 The drive for Open Data has thrown into sharp relief the tension between the trading fund model and the idea of making data available for free. Requiring trading funds to release the most valuable 'core reference data' free of charge

⁸ BIS, 2013, Shakespeare Review: An Independent Review of Public Sector Information, p 28 (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/198752/13-744-shakespeare-review-of-public-sector-information.pdf)

in order to maximise wider benefits means that the PSIH either needs to receive compensation for the cost of collecting and supplying the data that is made available for free, or that it manages to generate greater profits in other areas. Both of these options come with their own problems. If public money flows as compensation for Open Data commitments (as in the case of OS), there is scope for cross-subsidisation of commercial activities with revenues gained from such compensation. Where trading funds need to raise revenues elsewhere, this may have the potential to lead to over-pricing of information that is not covered by Open Data commitments, or potentially the use of strategies that limit competition.

- 1.31 Both of these concerns might be more easily addressed if the OFT's recommendations in relation to a proper distinction between contestable and non-contestable information and separate accounting for the different parts of the business had been fully implemented, as it would seem to be easier to establish funding requirements to compensate for the cost incurred in making data available for free, or to ensure that the PSIH does not behave in ways that could give rise to competition concerns.
- 1.32 Beyond these problems, there appears to be a continued concern about the commitment of smaller PSIHs, in particular at the level of local Government, to make available PSI. This inhibits the aggregation of information that could potentially be very valuable. Legacy technology and contractual arrangements with providers of IT systems sometimes also hold back the provision of PSI, or at least attempts to make such information available in the most useful format. Last but not least, data protection and privacy concerns are increasingly raised in connection with the provision of PSI.

Quantification of benefits

- 1.33 The benefits associated with the CUPI work would be reflected in an increase in the value of PSI made available and being re-used, as a result of the OFT's recommendations. Establishing an estimate of the magnitude of these benefits is difficult for two reasons. First, estimating the value of PSI is itself a difficult task, as is evident from the wide variety of estimates that have been produced in the literature. Second, given the multitude of factors responsible for changes in the PSI sector, attributing particular changes to the CUPI recommendations inevitably involves a substantial degree of judgment.
- 1.34 We have nevertheless attempted to establish a broad-brush estimate of the benefits by adjusting the estimate of the value of PSI established by Deloitte in the context of the Shakespeare review to make it broadly comparable to the estimate provided in the CUPI report, apportioning the difference in value to extraneous factors and changes in the behaviour of PSIHs, separating the

benefits associated with changes in PSIH behaviour to different sources (improved availability, licensing, pricing and service quality), and finally attributing some of the impact under each of these headings to CUPi.

- 1.35 Based on our analysis, we estimate that the benefits associated with the CUPi report could be in the range of £10m - £50m.

Conclusions

- 1.36 The market for PSI has grown substantially since the publication of the OFT CUPi study in December 2006. This growth has been driven by a number of factors, only some of which are related to changes made in response to the CUPi recommendations. Other factors that have played an important role in the growth of PSI use are the Government's Open Data agenda – motivated to a large extent by the desire to improve transparency and accountability of the public sector, but also aiming to stimulate economic growth – and wider technological developments. The multitude of drivers makes it difficult to establish with any degree of precision the impact that the CUPi recommendations had on the availability and use of PSI.
- 1.37 There seems to be broad agreement that the CUPi study acted as a catalyst. It highlighted many issues that had been raised before but which remained unresolved at the time, and raised awareness of the benefits that could be realised if more PSI were made available on better terms, with better quality and without restrictive licence conditions. Whilst the thrust of the OFT's recommendations – the need to put in place measures that ensure that PSIHs provide access to information for which they are the sole supplier to re-users, without attempts to distort competition in the downstream markets through restrictive licensing or distortive pricing - has generally been accepted, its implementation has been rather patchy. Some of the detailed recommendations have been implemented, but those that were at the core of the overall package have not.
- 1.38 Specifically, those recommendations that were aimed at creating an effective regime for enforcing competition principles by making PSIHs draw a distinction between information for which they were the sole supplier ('unrefined' information, in the OFT's terminology) and information that could be competitively supplied ('refined' information) and supply the former in a way that would not limit or restrict competition in the provision of the latter have not gained traction. The CUPi report triggered further work (most notably the Cambridge study and the TFA), but it is unclear what tangible impact this work had.

- 1.39 The reasons for this are not entirely obvious. To some extent, the OFT's choice of terminology (unrefined/refined) may not have been helpful in making sure that the underlying concepts would be adopted. However, the main concerns delaying and holding back implementation appear to have been associated with the impact that the proposed changes would have on the financial position of trading funds and the inherent difficulty in developing a systematic and universally accepted approach for establishing which activities of a specific PSIH should be deemed to be unrefined information activities and which should be deemed to be refined information activities.
- 1.40 This is somewhat ironic, given that the OFT had clearly sought to anticipate these concerns and develop recommendations that would not have substantive adverse implications for the public purse. In particular, the OFT did not require that unrefined information be priced at marginal cost (and as such, one could argue that as a matter of logic the implementation of the OFT's recommendations would only have financial implications for trading funds if their revenues at the time were inflated as a result of over-pricing of unrefined information). Although the OFT had anticipated some of these concerns and potentially conflicting interests when designing its recommendations, it could perhaps have provided further clarification at the point where it became clear that the adoption of key principles such as accounting separation was being tied to questions about how information should be priced.
- 1.41 The general principles that underpinned the OFT's recommendations are generally acknowledged. The TFA identified accounting separation as a key element of good practice and the enhanced IFTS acknowledged the importance of an upstream/downstream distinction, with the downstream arm operating on the same terms as third parties. The TFA findings endorsed making information more easily available and the IFTS enhancements placed somewhat greater emphasis on the maximisation of information made available for re-use. However, it is difficult to identify substantial changes in the behaviour of PSIHs that have been driven by these principles. Compliance with these various principles has generally not been enforced, with little evidence of substantial improvements in these areas since the CUPPI study was published.
- 1.42 The reason why compliance with these principles is sometimes lacking is perhaps linked to the fact that OPSI's resourcing has not increased to an extent that would allow it effectively to fulfil its broadened remit. The sanctions that it has available to enforce any recommendations it might make under the Re-use Regulations or the IFTS are limited. This means that there are inevitable limits to the role that OPSI is able to play, including through the IFTS, in addressing the concerns raised by the OFT.

- 1.43 The OFT itself was given the opportunity to comment on the draft guidance prepared as part of HMT's work announced in April 2006 on the modernisation of 'Government Accounting'. It also remained involved to some extent in the TFA and in discussions with OS. However, the extent of this involvement appears to be limited compared with what was envisaged in the CUPI study. This loss of momentum may also have contributed to the delayed and limited implementation of many of the recommendations.
- 1.44 Many of the concerns identified by the OFT have been addressed through the push for Open Data. At the same time, others have re-emerged, in particular because of the inherent tension between the trading fund model and the Open Data approach: requiring trading funds to self-finance while at the same time asking them to make available data for free means that either the Government has to provide funding for some of this activity, or that trading funds need to make up the shortfall of revenue elsewhere. Both of these options come with their own problems and could raise new competition concerns. Resolving this tension may be one of the major challenges in relation to the provision of PSI going forward.

2. Introduction and scope of this study

2.1 The evaluation team in the Competition and Markets Authority (CMA) has a wide-ranging remit to evaluate the impact of CMA's work and that of its predecessor authorities, the Competition Commission (CC) and the Office of Fair Trading (OFT). As part of its performance framework with the Department of Business Innovation and Skills (BIS), the CMA is required to undertake at least two in-depth ex-post evaluations of previous decisions, including at least one market study or investigation.⁹ As the CMA only came into being on 1 April 2014, its ex-post evaluation work for the 2014/15 business year will focus on decisions taken by one of its predecessor organisations. The evaluations are undertaken on behalf of the CMA by external parties or, where they are performed by CMA staff, they are independently reviewed. One of the functions of these evaluations is to help understand whether and how projects have achieved the desired impact, and whether the outcomes could be further improved. Findings from such evaluations are useful in identifying lessons that can be applied to future comparable interventions.

2.2 The Enterprise Act 2002 empowered the OFT (and now empowers the CMA) to undertake market studies as part of its general functions. Market studies examine the reasons behind why particular markets are not working well for consumers, and lead to proposals as to how they might be made to work better. The focus of market studies can vary:

- As well as looking at particular markets, market studies can examine practices across a range of goods and services, for example, doorstep selling.
- The CMA may also conduct market studies to improve its knowledge of markets or practices, or to look at developing markets, for example where the potential risks to consumers may be high, or where there may be potential barriers to entry.
- In addition to investigating adverse effects on competition caused by business and consumer behaviour, market studies can also examine restrictions on competition that can arise through Government regulation or public policy.

2.3 The principal outcomes of a market study are one or more of the following:

⁹ BIS, 2014, 'COMPETITION AND MARKETS AUTHORITY: Performance Management Framework', available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/274146/bis-14-559-competition-and-markets-authority-performance-management-framework.pdf

- a clean bill of health for the market
- consumer-focused action
- recommendations to business
- recommendations to Government
- investigation and enforcement action, and
- a reference to the CMA Chair, who is responsible for constituting the market reference group that will undertake a market investigation.

Background

- 2.4 Under the Enterprise and Regulatory Reform Act 2013, the CMA has been established as the UK's unitary competition authority, taking over the functions previously performed by the OFT and the CC. The CMA board has adopted, amongst other documents, the OFT's guidance setting out its approach to the conduct of market studies.
- 2.5 The CMA has commissioned an evaluation of the impact of the OFT's market study into the commercial use of public information (CUPI).¹⁰

The CUPI study

- 2.6 The CUPI study was an extensive investigation of how public sector information holders (PSIHs) supplied information collected or managed in the course of their activities for commercial use and re-use. It was prompted in part by the findings from a previous market study looking at property searches but more broadly reflected increasing recognition of the value of public sector information (PSI) for the economy. It also matched one of the OFT's priorities for the 2005 – 2007 period, namely, the interaction between Government and markets and the impact that the public sector could have on the working of markets. The study was launched in July 2005 and its findings were published in December 2006.
- 2.7 The CUPI study identified shortcomings in how PSI was made available for re-use and the extent to which this allowed businesses to compete with PSIHs in the supply of value-added products and services. Many of the competition concerns identified by the OFT stemmed from PSIHs typically being the only

¹⁰ OFT, 2006, 'The commercial use of public information (CUPI)', <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>

source of what the OFT termed 'unrefined' information¹¹ that could be used by third parties as an input in the creation of 'refined' products and services. Problems could be exacerbated when a PSIH was itself also a supplier of value-added (or refined) products or services based on the unrefined information that it held. In these circumstances, there might then be an incentive for the PSIH to leverage its monopoly position in the upstream market for unrefined information to dampen competition in the downstream market for refined products.

2.8 In broad terms, the OFT found the following problems:

- inadequate availability of unrefined information, ie information of which the PSIH was the sole supplier and which could be used by third parties to create value-added products and services;
- overly restrictive licensing policies that could limit the ability of licensees to compete with the PSIH;
- inadequate quality of service, in particular in relation to the timeliness of providing information; and
- unduly high prices, often driven by insufficient awareness of the costs associated with providing unrefined information.

2.9 The OFT concluded that these problems led to around half of the potential value of PSI remaining unrealised; the value of PSI was estimated to be around £590m per annum, but could potentially be around £1.1bn.¹²

2.10 To realise some of this untapped potential and reduce the detriment, the OFT set out a number of recommendations both for Government and for PSIHs, building on the existing controls on PSIH activities. A number of particular recommendations were made in relation to OS, which was found to be the largest PSIH based on revenues and whose practices at that time gave rise to specific concerns. A full review and analysis of the recommendations is provided as part of the qualitative assessment below.

2.11 The OFT stated that it intended to evaluate the impact of its proposed recommendations within two or three years of the publication of its findings and consider the case for further action at that time, including the option of increased regulatory oversight of the sector. Whilst the OFT continued its engagement with stakeholders and remained involved (in particular in relation

¹¹ See Appendix D.

¹² £400m of the value of the PSI to the economy was reflected in the revenues earned by PSIHs. For further detail see OFT, 2006, 'Annexe G Economic value and detriment analysis', <http://www.epractice.eu/files/media/media2569.pdf>

to changes made at OS) no formal evaluation of the impact of the CUPI study took place.

Context of the CUPI study

2.12 In order to identify the impact of the OFT CUPI study and its recommendations, it is important to understand the regulatory environment governing the provision of PSI in the UK at the time. In particular:

- a previous ‘Review of Government Information’ had identified the importance of PSI and brought about some changes in the provision of PSI;
- the so-called ‘Information Fair Trader Scheme’ (IFTS) had been in place since 2002 to improve the supply of PSI;
- legislation had been introduced on the re-use of PSI (the ‘Re-use Regulations’); and
- the Office of Public Sector Information (OPSI) had been created alongside the introduction of this legislation to take the lead on implementation.

The boxes below provide brief descriptions of these.

The Review of Government Information

As part of the Cross-Cutting Review of the Knowledge Economy, in 2000 HMT published a Review of Government Information. The review drew attention to the importance of PSI and made some recommendations that led to plans announced by the Government in September 2000, including:

- implementation of the ‘Click-Use-Pay’ licence, ‘an inclusive one-stop licence that could operate across the entire range of Crown copyright protected material’;¹³
- simplified licensing and pricing for Government information;
- improved pricing and dissemination for trading funds;
- a marginal cost pricing policy for raw data held by non-trading funds, which came into effect on 1 April 2001;¹⁴

¹³ See paragraph 6.4, HM Treasury, 2000, ‘Cross Cutting Review of the Knowledge Economy Review of government information’, http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/spend_sr00_ccr.htm

¹⁴ HM Treasury, 2001, ‘Charges for information: when and how’, http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/media/32082/charging_for_info.pdf

- a consultation on the future of Her Majesty's Stationary Office (HMSO), with a view to establishing a regulatory body that would work with an advisory panel of public and private sector representatives and establish a credible complaints procedure;
- prompt creation of a PSI Information Asset Register (IAR); and
- the provision of PSI in digital form whenever possible.

The Government did not respond to the recommendation for further work to be carried out on the economics of information.

The Information Fair Trader Scheme

The IFTS was introduced in 2002 and was initially implemented by HMSO as a means to deliver improvements in PSI dissemination and charging.

PSIHs could become members of the IFTS by making a commitment to the IFTS principles which would periodically be re-verified through an independent audit. The IFTS principles at the time¹⁵ were:

- **Openness**, requiring that in principle, all information created by an organisation within IFTS be licensed for any use, by any customer and that exceptions should not be normally allowed;
- **Transparency**, requiring that the process of applying for a licence, applicable prices, the factors influencing pricing policy, and any exceptions to the principle of openness be explained publicly;
- **Fairness**, requiring that all applicants and licensees be treated alike for the same type of licence, and that the organisation not use its market power to compete unfairly;
- **Compliance**, requiring that internal processes be in place to meet the IFTS commitments and adherence to these processes be independently tested; and
- **Challenge**, requiring that a robust internal complaints process be in place, and that complaints from third parties about alleged failures to meet the IFTS commitment be investigated by (then) HMSO.

¹⁵ In 2009, the set of principles changed to **maximisation, simplicity, innovation, transparency, fairness** and **challenge**. See <http://tna.europarchive.org/20100402134329/http://www.opsi.gov.uk/ifts/index>

The scheme was applied to the organisations that were licensing Crown copyright information under delegated authority from HMSO. To be recognised as an Information Fair Trader, an organisation would make a commitment to the five fair trader principles outlined above; have the commitment independently verified by OPSI through a comprehensive audit, and periodically re-verified; and investigate any complaints that the commitment has not been met.

The IFTS was amended in 2009, changing the set of principles to **maximisation, simplicity, innovation, transparency, fairness** and **challenge**. Of particular importance is the maximisation principle (replacing the previous openness principle), which emphasises that the default position should be that PSIHs need to allow re-use and that any exception would require strong justification.¹⁶

The Re-use of Public Sector Information Regulations 2005

The Re-use of Public Sector Information Regulations (the 'Re-use Regulations') transposed the EU PSI Directive (2003/98/EC)¹⁷ into national law.

The Re-use Regulations do not create an obligation to allow re-use,¹⁸ but set out certain conditions on the supply of PSI and requirements that have to be met by PSIHs who have chosen to permit re-use. These requirements can be seen as relatively light-touch and include, for example, that:

- any conditions on re-use shall not unnecessarily restrict competition and the types of re-use, or discriminate between third parties;
- PSIHs may charge for re-use, but income from charges may not exceed costs plus a reasonable return on investment; and
- PSIHs establish internal procedures to deal with complaints under the Re-use Regulations; where the internal procedure has been exhausted or the PSIH has not responded in a reasonable time, the complainant may then refer the complaint to the Office of Public Sector Information (OPSI); where a complainant is dissatisfied with OPSI's recommendations made under the Re-use Regulations it may then request a review by the Advisory Panel on Public Sector Information (APPSI)¹⁹.

Importantly, the Re-use regulations only apply to PSI that is made available by a PSIH as part of its public task, and they define 're-use' as third-party use of PSI for a purpose that differs from the PSIH's public task. This makes the notion of the public task and that its specification crucial in the application of the Re-use Regulations.

¹⁶ For a more detailed discussion of these changes see paragraphs 5.50 - 5.55 below.

¹⁷ See <http://ec.europa.eu/digital-agenda/overview-2003-psi-directive>; the Directive entered into force on 31 December 2003.

¹⁸ For example, the regulations state that '[a] public sector body may permit re-use' (Section 7) and that the regulations do not apply to documents 'unless it has been identified by the public sector body as being available for re-use' (Section 5.2(a)). See <http://ec.europa.eu/digital-agenda/overview-2003-psi-directive>.

¹⁹ Appendix D

In June 2013, an amending Directive was adopted.²⁰ The revisions were intended further to open the market for services based on PSI. There is now a requirement that PSI holders allow the re-use of documents that can be accessed under national laws – making re-use mandatory in most cases. Charges for re-use should be set at no higher than marginal cost (with exceptions only in a limited set of cases), and there should be a means of redress for re-users of PSI operated by an impartial review body with the power of making binding decisions on public sector bodies. The National Archives (TNA) recently consulted on the transposition of the amended Directive in the UK, though no decision has been made on the specifics of the implementation at the time of writing.

The Office of Public Sector Information

OPSI was created at the same time as the Re-use Regulations and became part of TNA in 2006. As well as administering the formal complaints procedure mentioned in the Re-use Regulations, its duties at the time of the CUIPI study included:

- administration of the IFTS, including investigation of any complaints made under the scheme;
- provision of guidance, eg through its Guide to the Regulations and best practice; and
- administration of Click-Use Licensing (later superseded by the Open Government Licence).

OPSI also had the policy lead for the Information Asset Register (IAR) and its portal Inforoute, which is used widely across central Government as a way of identifying and accessing information asset lists.

OPSI had a memorandum of understanding with the OFT stating that any complaints made to the OFT would be considered in the context of the OFT's administrative priorities and could be closed on such grounds. It was anticipated that many complaints would be better addressed under the Re-use Regulations and therefore complainants could be advised to contact OPSI. The memorandum has been updated to apply to the CMA.

2.13 In March 2006, after work on the CUIPI study had begun, but before its findings were published, the Guardian newspaper started a campaign called 'Free Our Data'.²¹ Its focus was on Government-owned agencies that did not make their data freely and widely available. Over a period of time, the Guardian published articles arguing for such data to be made available for free, so that society could benefit from re-use and innovation.

²⁰ See <http://ec.europa.eu/digital-agenda/en/news/revision-psi-directive>.

²¹ See <http://www.freeourdata.org.uk>

Scope of this report

- 2.14 The purpose of this study is to evaluate the impact that the OFT CUPI study has had on the market for PSI. Our focus is on assessing how the provision of PSI has changed since the study was published, what mechanisms have been responsible for these developments and specifically what role the OFT study has played in driving observed changes. Although establishing a quantitative estimate of the benefits that could reasonably be attributed to the study is desirable, it is perhaps more important to develop an understanding of *how* the study and its recommendations have influenced other bodies and the market as a whole, and where the intended effects did not materialise, it is important to ascertain *why* they did not.
- 2.15 Identifying the mechanisms through which the CUPI recommendations might have affected the behaviour of PSIHS and led to changes in the market for products and services derived from PSI is complicated by a combination of factors:
- many of the OFT's recommendations explicitly or implicitly asked for further work to clarify how the general principles embodied in the recommendations should be applied (eg guidance on the pricing of information) or to investigate specific PSIHS (eg OS), which would have involved a large number of stakeholders and may have altered and substantially delayed their impact;
 - PSIHS have different characteristics, functions and obligations, and are likely to have responded to the recommendations (both those addressed directly to them, and those arising from further work) in different ways; indeed, the wide range of PSI and of potential commercial uses means that the informal 'market' for commercial use of public information in reality comprises a large number of distinct markets;
 - the technologies available for collecting, analysing, storing, retrieving, formatting and distributing information have changed substantially, reducing the cost of disseminating and exploiting information and increasing the range of products and services that can be developed on the back of information resources;
 - other policy objectives, particularly increasing the transparency and accountability of the public sector, coupled with growing understanding of the potential for unlocking economic growth through the provision of 'Open Data' have shaped the PSI sector through a number of high-profile policy initiatives;

- there are substantial difficulties in obtaining precise estimates of the value of PSI to the economy; and
 - last, but not least, a substantial amount of time has passed since the OFT made its recommendations, which means that documentary evidence in relation to specific actions that have been undertaken is not easily available.
- 2.16 Because the changes in the behaviour of PSIHs and in the availability of PSI (in terms of volume, quality, price and licence restrictions) are the result of multiple, potentially interacting, factors, it is necessary to understand other policy developments and trends occurring both before and after the CUPi report in order to identify the specific impact of the CUPi recommendations.
- 2.17 Unlike the CUPi study, this evaluation does not involve a large-scale survey of PSI users. However, in a similar manner to the CUPi study, we have relied on a number of in-depth case studies in order to assess the impact of the CUPi recommendations on the behaviour of PSIHs and on PSI markets.
- 2.18 We have also sought to identify residual problems in relation to the provision of PSI. Such residual problems could exist simply because some of the recommendations made by the OFT have not been fully implemented. However, residual problems could also indicate that some of the recommendations were not effective in addressing the problems that the OFT had identified. Understanding why recommendations made as the result of a market study might not have worked as intended is an important aspect of any evaluation exercise if lessons are to be learned for the future.
- 2.19 In preparing this report, we have engaged with a large number of stakeholders – policy makers, experts, advisory groups, PSIHs and PSI users – in order to:
- identify how the CUPi recommendations may have affected various subsequent policy initiatives;
 - establish the effects of these various policy initiatives on the behaviour of PSIHs and the type, amount and quality of PSI made available for commercial re-use; and to
 - understand how the market for commercial re-use of PSI is working today and, in particular, if there are still perceived problems that relate to the competition concerns raised in the CUPi report.

Appendix A sets out our approach to stakeholder engagement, and lists all the stakeholders with whom we have spoken in the course of our study. We

would like to thank all of these parties for the assistance they have provided to us.

Structure of report

2.20 The remainder of this report is structured as follows:

- (a) Chapter 3 describes at a high level the methodology for the study. Given the importance of understanding the mechanisms by which the CUPI study may have generated benefits and what lessons might be learned, we set out a taxonomy of the various ways in which the CUPI study may have affected market outcomes. This forms the basis of our qualitative assessment. We also briefly discuss the difficulties of quantitative assessment and set out our approach to arriving at a broad-brush estimate of the benefits that can be attributed to the CUPI study.
- (b) Chapter 4 describes the OFT's recommendations and provides an overview of their impact.
- (c) Chapter 5 provides a detailed assessment of the impact of the CUPI study, looking at direct effects from the OFT's recommendations on PSIHs and PSI market outcomes.
- (d) Chapter 6 describes developments of the PSI sector that were mainly driven by the Open Data agenda pursued by Government from 2009 onwards, but where some indirect link to the CUPI study may exist.
- (e) Chapter 7 identifies concerns about the provision of PSI for re-use that remain today.
- (f) In chapter 8 we derive a broad-brush estimate of the benefits that might reasonably be attributed to the CUPI study.
- (g) Chapter 9 presents our conclusions.

2.21 A summary of our interaction with stakeholders is provided in Appendix A. Detailed write-ups of the case studies we have undertaken are included as Appendix B.

3. Approach and methodology

- 3.1 In this chapter, we briefly describe at a high level our approach to the qualitative and quantitative assessment of the impact of the OFT CUPi study.
- 3.2 At its most basic, the impact of an intervention is measured by the sum of all changes in the behaviour of market participants that are causally linked to it, using metrics such as market size, price and quality. In order to identify these changes we need to compare the actual market outcomes against those that would have occurred in the absence of the intervention.
- 3.3 Identifying what would have happened in the absence of the CUPi study requires us to understand how its recommendations have been implemented, and how the behaviour of market players and ultimately market outcomes have changed as a result. Answering these qualitative questions provides an insight into the mechanisms through which the recommendations have worked (and where they have not, the reasons for this). This in itself indicates the effectiveness of the intervention and helps with drawing lessons to guide future interventions.
- 3.4 Quantification of the impact then involves the comparison of appropriate metrics (such as the economic value of PSI made available for re-use) between the actual and the counterfactual situations. There are many potential approaches for making such a comparison, and, in practice, the choice of method depends strongly on data availability.

Qualitative analysis

- 3.5 The CUPi study made a number of recommendations to policy makers, to PSiHs in general, and to one PSiH in particular (OS). Our starting point is a review of how these recommendations have been implemented and the specific actions that the respective addressees have taken in response.
- 3.6 The recommendations were ultimately aimed at improving the supply of PSI for re-use and realising the economic benefits associated with this information. What ultimately matters is the impact that they have had on the behaviour of PSiHs in terms of making more information available, improving the quality of service, avoiding unduly or distortive pricing and removing restrictive licence terms.
- 3.7 Establishing this impact involves distinguishing changes in behaviour that result from the recommendations from changes that would have taken place in any case. In markets that are, by and large, static apart from the intervention being evaluated, it may be reasonable to assume that the status

quo at the time of the intervention provides a good indication of what would have happened without it. However, in the case of the PSI sector, matters are not that simple for a number of reasons:

- (a) Provision of PSI for re-use was governed by a pre-existing framework, including existing guidance documents from HMT, IFTS principles and the Re-use Regulations that came into force in 2005, alongside the creation of OPSI. Although the OFT found that much more use could be made of PSI, and much more value created from it, UK PSIHS already generated substantial revenues from the provision of PSI. Some PSIHS had been providing information for re-use for some time, and others (such as the Land Registry) had just begun to explore the value of their information and to develop a data strategy. Therefore, even without the OFT recommendations, PSIHS might potentially have made more data available, improved their quality of service and encouraged re-use.
- (b) Since the publication of the CUPI study, the PSI sector has been the subject of various policy initiatives aimed at increasing the supply of PSI. Some of these initiatives can be directly linked to the OFT recommendations (such as the Cambridge study²² and the TFA). Others may have formed part of an entirely different agenda, such as the 'Open Data' movement which was to a large extent aimed at improving transparency and making the public sector more accountable in the expectation that 'Making Public Data Public' could improve public sector efficiency and stimulate economic growth. Whilst some of these policy initiatives might not have taken place (or might have taken place later than they did) without the CUPI study, others might have played out in much the same way, although there may be an indirect impact from the CUPI report having raised awareness of the value of PSI.
- (c) Over the past decade, substantial technological developments and shifts in consumer behaviour have affected the information economy. This period has seen the widespread adoption of broadband services, more capable web-browsing standards, the adoption of mark-up languages for complex data (XML) and improvements in the tools available for collecting and exploiting information. As a result, the cost of gathering, distributing, and – perhaps more importantly – exploiting data has fallen substantially. At the same time, consumers have become more familiar with accessing information in an increasing range of ways, including on the move. App stores (eg Apple's iTunes store or Google Play) allow easy access to applications for smartphones at low enough cost that users are prepared

²² Newbury, D, L Bentley and R Pollock, 2008, 'Model of Public Sector Information Provision via Trading Funds', Cambridge University, <https://www.opsi.gov.uk/advice/poi/models-psi-via-trading-funds.pdf>

to experiment with new and possibly unfamiliar applications. Facilities for in-application purchase provide a means of raising revenue from information-based services without needing to create a payment infrastructure (see box below for a brief description of the rise of apps). These developments have arguably reduced the cost of making PSI available, increased the scope for development of value-added services through re-use and improved the ability of re-users to realise the value of these services to end-users. In turn, these profound shifts may have triggered improvements in the availability of PSI for re-use (with better quality and lower prices) as a result of both increased demand and lower costs of supply.

The rise of the apps

When the CUIPI report was published, the iPhone was still in development. It would be launched in mid 2007, and Android would not come on to the market until 2008. The smartphones of the time – running on Nokia’s Symbian OS or Windows Mobile – and RIM’s successful Blackberry offered a glimpse of what would be possible, but smartphone users had access to only a limited range of applications.

Apple made available a Software Development Kit (SDK) for third party developers in March 2008, and the iTunes App Store launched in July 2008 with around 500 apps. There were ten million downloads over the first weekend. By November, the number of apps on Apple’s App Store had increased to 10,000, and overall 500 million downloads had been achieved. By May 2011, Apple had approved its 500,000th app. At about the same time, 250,000 apps were available for Android phones.²³ Total spend on apps in 2012 was estimated to be \$8bn globally.²⁴

Apps rely to a varying degree on PSI. Both weather and mapping applications are amongst the most popular app categories. For example, in the UK, there were more than 2 million downloads and more than 30 million active users of navigation apps in December 2013, ie half of the population was using navigation apps on their smartphones.²⁵ An IPSOS poll of smartphone users found that 46% of users regularly use weather apps - way ahead of the news apps at 37%.²⁶ However, whilst practically all weather apps are based on PSI (namely data provided by the various meteorological services, mainly from the Global Forecast System run by the US National Weather Service and other national meteorological services that provide access to their model outputs for free), mapping applications are to a much greater extent based on Google maps and the OpenStreetMap²⁷ project, not least because PSIs offering geo-location data often levy substantial charges²⁸ (though OS makes some of its data available for free under developer licences).

- (d) Last but not least, demand for PSI in particular sectors may have shifted because of other fundamental trends unrelated to developments in information technology. For example, climate change might have increased demand for weather data and flood-risk forecasts. Increasing prices for energy and minerals could have boosted demand for geological data. Growth in deployment of offshore wind farms may have stimulated demand for hydrographical information, and so on. These shifts, which

²³ <http://blog.shoutem.com/wp-content/uploads/2011/09/mobile-app-stores-history.jpg>;
<http://www.slideshare.net/JAlker/swipe-the-history-of-apps-iphone-ipad-and-android>

²⁴ <http://www.whiteboardmag.com/the-app-economy-8-billion-in-2012-but-average-revenue-for-paid-apps-is-down-almost-30/>

²⁵ Priori Data, 2014, ‘Spotlight Report, Navigation Apps iOS & Android’.

²⁶ <http://www.statista.com/statistics/285107/most-popular-mobile-app-types-in-great-britain-by-penetration/>

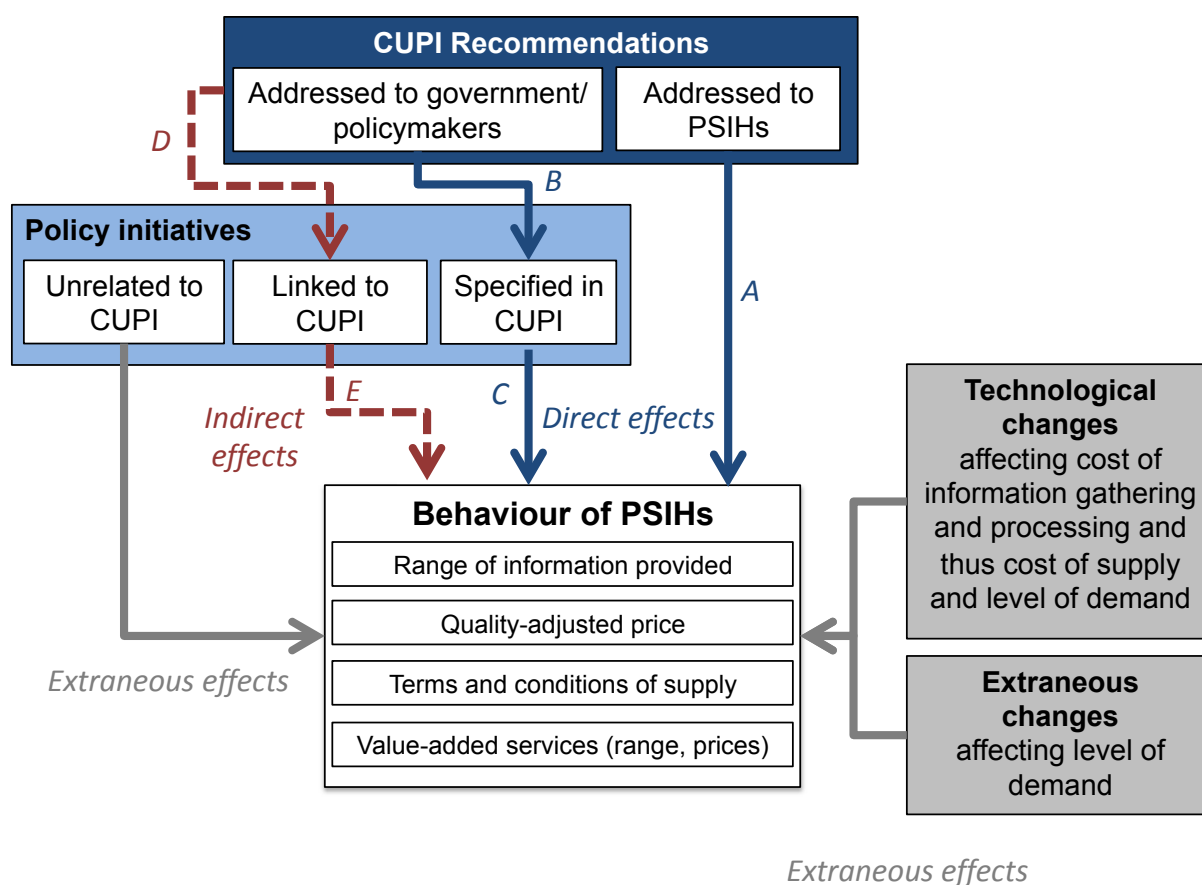
²⁷ We understand that both Google and OpenStreetMap make use of OS OpenData.

²⁸ See Deloitte and Tech412, 2011, ‘Pricing Of Public Sector Information Study, Apps market snapshot’, published by the European Commission,
http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCEQFjAA&url=http%3A%2F%2Fec.europa.eu%2Finformation_society%2Fnewsroom%2Fcf%2F%2Fdocument.cfm%3Fdoc_id%3D1160&ei=71zCVJfQHMB1UL6ugegL&usq=AFQjCNHuHKZaDUZpH2XE7jaXK60XGf4cXA&bvm=bv.84349003,d.d24

are specific to particular services and applications, might have resulted in more information being made available as a result of greater demand.

3.8 These contemporaneous developments complicate identification of the impact of the CUPI study. Many stakeholders have confirmed that it is very hard to say whether and to what extent developments in PSI subsequent to CUPI can be attributed to the CUPI study given the amount of time that has passed and the number of other factors that have been changing over the period since CUPI. Nevertheless, we attempt to distinguish between direct, indirect and extraneous effects that could have caused the changes we observe in the market place, as illustrated in the diagram below.

Figure 1: Direct, indirect and extraneous effects



3.9 Direct effects capture:

- actions taken by PSIHs in response to the CUPI recommendations addressed to them (marked as A above). An example (albeit a hypothetical one) would be the adoption by a PSIH of accounting separation between activities related to the provision of what the OFT termed 'unrefined' information and other activities; and
- actions taken by policy makers (B) and changes in PSIH behaviour that are linked to these actions (C). The development of better guidance on

how to charge for PSI would be an example of a direct impact of a CUPI recommendation on policy makers (B). Any subsequent modification of the pricing of PSI would be an example of the impact on the behaviour of PSIHs (C).

- 3.10 Indirect effects, by contrast, reflect changes in PSIH behaviour in response to policy initiatives that are not directly linked to the CUPI recommendations (D and E). For example, the free release of PSI in the wake of the ‘Making Public Data Public’ campaign might at least in part be an indirect effect of the CUPI study having raised awareness of the economic value of PSI, to the extent that data was released with the aim of stimulating economic growth rather than improving the transparency and accountability of the public sector. (This might apply to particular types of data, eg weather data or geo-spatial information.)
- 3.11 Extraneous effects capture the impact of changes unrelated to the CUPI recommendations on the behaviour of PSIHs. These extraneous factors include policies that would have been put forward in the same form and at the same time, even if the CUPI study had not taken place, as well as changes in technology and other underlying drivers of demand for PSI.
- 3.12 Our objective is to separate the effects of the OFT’s recommendations from the impact of other contemporaneous developments, but include the impact that the recommendations may have had on these other developments, ie we want to capture direct and indirect effects, but exclude extraneous ones.

Direct effects

- 3.13 In order to identify direct effects, we need to examine:
- (a) what actions have been taken by policy makers and PSIHs in response to the OFT’s recommendations;
 - (b) how these have affected the behaviour of PSIHs and PSI users; and
 - (c) how changes in the behaviour of PSIHs and PSI users have affected market outcomes.
- 3.14 Whilst Government policies that were developed and put in place in response to the CUPI study are a matter of public record, our attempts at identifying actions taken by the public sector and PSIHs in response to the CUPI recommendations, and their impact on PSIH behaviour, have been met with mixed success. This is to a large extent because of the considerable amount of time that has passed since the CUPI report. In our interviews with PSIHs (including those PSIHs that were the subject of our detailed case studies), we

have been told that contemporaneous documents that might provide evidence of actions taken by PSIHs in direct response to the CUPi recommendations have often not been retained for such a long period of time. Therefore, there is limited direct documentary evidence of such effects.

- 3.15 We have reviewed the policy developments affecting the PSI sector in detail and have attempted to identify the measures and initiatives that can be directly linked back the CUPi recommendations because:
- they were either the result of aspects of the OFT's recommendations that were directly addressed at policy makers; or because
 - policies have been put in place in response to the OFT's recommendations in respect of PSIHs that were reliant to some extent on the development of further guidance and – in order to become effective – changes in monitoring and enforcement.
- 3.16 We have refined and tested our views on how policy changes that took place after the CUPi recommendations link back to the OFT's work through discussions with policy makers and stakeholders representing the interests of PSIHs and PSI users. A list of the stakeholders with whom we have spoken and brief summaries of their views are provided in Appendix A.
- 3.17 Some of the OFT's recommendations addressed to policy makers involved engagement behind the scenes (eg in relation to strengthening the role of OPSI or further developing the IFTS). We have found that records documenting these actions and their effects on PSIHs are not readily available. Again, we have relied on interviews with our case study PSIHs and other stakeholders in order to identify changes in PSIH behaviour that can be connected to the CUPi recommendations even if not explicitly specified.
- 3.18 It is often difficult to link particular changes in the way in which PSIHs make available information firmly to specific policy measures. However, as we discuss below, some attribution of causes and effects appears to be possible with a reasonable degree of confidence.

Indirect effects

- 3.19 Whilst we can treat technological developments and other factors that might have affected the value of, and thus the demand for, PSI as extraneous, we also need to consider the impact of the OFT's work on policy initiatives beyond those directly linked to recommendations in the CUPi report (such as such as the HMT guidelines for the pricing of information) or to the overall thrust of the CUPi recommendations (such as the revised IFTS).

- 3.20 The OFT study is one of a set of interrelated interventions that have occurred with broadly similar aims. Even where there is no direct link to the CUPI recommendations, the OFT's work has contributed to raising awareness of the economic value of PSI and the benefits that could be obtained if more such information were made available at lower prices and without restrictive licence terms. This raised awareness of the economic importance of PSI may have influenced subsequent policy initiatives. For example, the benefits cases made by the Open Data User Group (ODUG) in support of the release of PSI as Open Data arguably reiterate many of the arguments put forward in the CUPI report; this could be seen as another step in a series of cumulating policies focusing on the economic benefits of making PSI available.
- 3.21 Looking beyond the direct effects of the CUPI recommendations raises the issue of attribution. Even where the impact (E) of particular policies on the behaviour of PSIHs may be relatively clear, it is more difficult to establish with any degree of confidence the broader impact of the CUPI study on the development and implementation of those policies. This requires assumptions about the shape other policies would have taken if the OFT had not looked at the PSI market, had not identified the problems it found, and had not made the recommendations it put forward. Perhaps the most plausible assumption in this regard is that the OFT's work may have accelerated developments that might have happened otherwise. The work that was done in the wake of the CUPI recommendations by policy makers and stakeholders appears to have prepared the ground for the subsequent release of data under Open Data principles (see box below). It may, therefore, be appropriate to consider at least part of the benefits of developments subsequent to the CUPI study as indirect effects of the OFT's work.

Quantitative analysis

- 3.22 The OFT CUPI recommendations were aimed at reducing (and perhaps removing) the detriment associated with PSIHs not making data available, charging unduly high prices, providing poor service quality or restricting competition through licensing terms that restricted the scope for re-use. Evaluating the benefits of the CUPI recommendations, therefore, requires us to establish the change in economic value of PSI as a result of the changes in PSIH behaviour caused by the CUPI recommendations. In addition to establishing a reasonably clear causal effect linking changes in PSIH behaviour to the CUPI recommendations, establishing changes in economic value requires (at a minimum) evidence of how these changes in behaviour have affected the range of PSI available, its prices and its quality, and the

subsequent extent of re-use, making sure that any portion of these changes that is attributable to extraneous effects is excluded.²⁹

- 3.23 Alternatively, one might look at changes over time in the economic value of the PSI sector overall, which (as noted above) is the result of a range of factors, not just the CUIPI recommendations, and then try to attribute a portion of these changes to the implementation of the CUIPI recommendations. This approach is much more broad-brush in terms of identifying specific causal links, but also less demanding in terms of data requirements.
- 3.24 However, even if it were possible to identify an appropriate counterfactual with sufficient clarity, and identify the changes in the level of re-use of PSI, establishing the economic value associated with a particular level of re-use is far from straightforward. Establishing the economic value of PSI is fraught with methodological problems and hampered by a severe lack of reliable data. For example, there is very little data that would allow us to assess the demand for PSI of a particular type at different prices and so estimate consumer surplus.
- 3.25 In light of these problems the CUIPI study itself did not attempt to quantify the likely value of PSI to the UK economy with any degree of precision, or establish a detailed estimate of the detriment associated with the various shortcomings identified. Acknowledging the lack of data as one of the major problems in producing such estimates, the OFT was aiming to 'develop order of magnitude estimates based on available data and reasonable, conservative assumptions where that is lacking.'³⁰
- 3.26 Where the CUIPI study could draw on data from a large survey of PSIHs undertaken by the OFT at the time, no such information exists for the PSI sector at present or, indeed, at various points in time in between the completion of the CUIPI study and the present. For this reason, we have not attempted to undertake any detailed quantification of the impact of the CUIPI recommendations on the current economic value generated from the provision of PSI for re-use, or the reduction in detriment between the CUIPI study and now. Instead, we have aimed to establish an order-of-magnitude estimate of the benefits that might reasonably have been created by the CUIPI study by:

(a) comparing two snapshot estimates of the value of PSI; and

²⁹ It is in this respect that the need for a robust and reliable counterfactual is most pressing.

³⁰ OFT, 2006, 'Annexe G Economic value and detriment analysis', <http://www.epractice.eu/files/media/media2569.pdf>, p 4.

(b) attempting to attribute a portion of the difference in these values to the various effects identified in our qualitative assessment.

4. The OFT's recommendations and their impact

4.1 In order to identify the mechanisms of impact of the CUIPI study we start by detailing the recommendations made in the CUIPI report and describing their implementation. The next chapters then provide a detailed analysis of direct and indirect effects.

The OFT's findings and recommendations

4.2 In broad terms, the OFT found the following problems:

- inadequate availability of what the OFT termed 'unrefined' information³¹, ie information of which the PSIH was the sole supplier and which could be used by third parties to create value-added products and services;
- overly restrictive licensing policies that could limit the ability of licensees to compete with the PSIH;
- inadequate quality of service, in particular in relation to the timeliness of providing information; and
- unduly high prices, often driven by insufficient awareness of the costs associated with providing unrefined information.

4.3 In relation to OS, the OFT noted a number of issues that needed to be addressed with urgency, in particular that:

- OS provided limited access to unrefined information and instead focused on developing value-added or refined information products;
- the licence terms offered by OS did not encourage re-use of its information and that licence exceptions were going beyond what the OFT would have liked to see given OS's monopoly status;
- OS did not separate its upstream and downstream operations, making it difficult to verify, monitor and enforce non-discrimination; and that
- The termination clauses in OS's contracts, which allowed OS to terminate the contract when a re-user was in dispute, discouraged re-users from bringing complaints in the first instance.

4.4 Many of the issues raised in the CUIPI report were not new. For example:

³¹ See Appendix D.

- HMT's Cross-cutting Review of the Knowledge Economy (Review of Government Information) in 2000 had recognised the importance of PSI to the economy and reached conclusions that were similar to those in the OFT CUIPI study. The Review of Government Information had highlighted that more could be done to improve access to Government information, and that the Government could more clearly define its role in the PSI sector. It had found the need for prices to be transparent and for licensing to be made easier. PSIHs should have comprehensive Information Asset Registers listing what information is available for re-use. There would have to be a complaints procedure with real and credible remedies to ensure compliance. However, although some positive steps had been taken in response to this work (such as the establishment of APPSI and later OPSI, and the introduction of Click-Use Licensing), the OFT's assessment was that 'these steps have not been sufficient to address the issues identified in the Review and that the regulatory framework appears not to be very effective in remedying the problems of the sector.'³²
- Similarly, the case for a clear definition of the public task of OS and for accounting separation to ensure non-discriminatory treatment between OS's downstream arm and third parties had been made before. A 2002 Select Committee inquiry had examined issues identified within OS and found that 'there is a clear need to define the boundaries of Ordnance Survey public service and national interest work. If Ordnance Survey wants to enter into commercial activities we can see no reason why it should not do so, but the two activities ought to be separately accounted for and its commercial arm should pay the same copyright fees as any other organisation/competitor.'³³

4.5 The fact that the key issues that needed to be resolved going forward had already been identified in the Cross-cutting Review clearly shows that the role of the OFT's work was to provide new momentum to a process that had started more than five years earlier, but where progress had been slow.

4.6 The OFT identified a number of factors that were responsible for this. Specifically:

- The OFT highlighted that the Re-use Regulations contained no clear definition of what was meant by 'public task' and that very few PSIHs had

³² OFT, 2006, 'The commercial use of public information (CUIPI)', p 8, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>.

³³ See the Transport, Local Government and Regions Committee Tenth Report, <http://www.publications.parliament.uk/pa/cm200102/cmselect/cmtlgr/481/48104.htm>

a clearly defined public task.³⁴ Given the crucial importance of the public task for the application of the Re-use Regulations, the lack of an obligation on PSIHS to define their public task was a serious problem hindering effective implementation the regulations (see box below).³⁵

- The OFT also recognised that there was a lack of enforcement power that limited the effectiveness of the existing framework. OPSI's powers and resources were limited and perhaps not sufficient to allow it to monitor the large number of PSIHS and to check that pricing and licensing terms were in line with requirements. Moreover, the sanctions at OPSI's disposal were weak and there was no power to force PSIs to comply with OPSI's recommendations. Enforcement powers were strongest in respect of PSIHS that were Crown Bodies and operated under delegated authority, and perhaps with regard to members of the IFTS, but there was a large number of PSIHS who were neither.³⁶

Public Task and re-use under the Re-use Regulations

As noted above, the Re-use Regulations only apply to information whose supply falls within the PSIHS's public task³⁷ and provided for 're-use', which excludes the use of the information supplied for purposes that are identical to the public task.³⁸ This means that the scope of the public task is crucial in the application of the regulations: the broader the public task, the greater the amount of information that would potentially be covered by the regulations, but the more limited the scope for potential re-users to exploit the information without overlapping with the PSIHS's public task.³⁹

³⁴ As the OFT noted, only two out of the 18 PSIHS covered by its survey that had authority delegated to them to license Crown copyright for re-use had a standard definition of their public task that existed as a single document. See OFT, 2006, 'The commercial use of public information (CUPI)', p 48, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>.

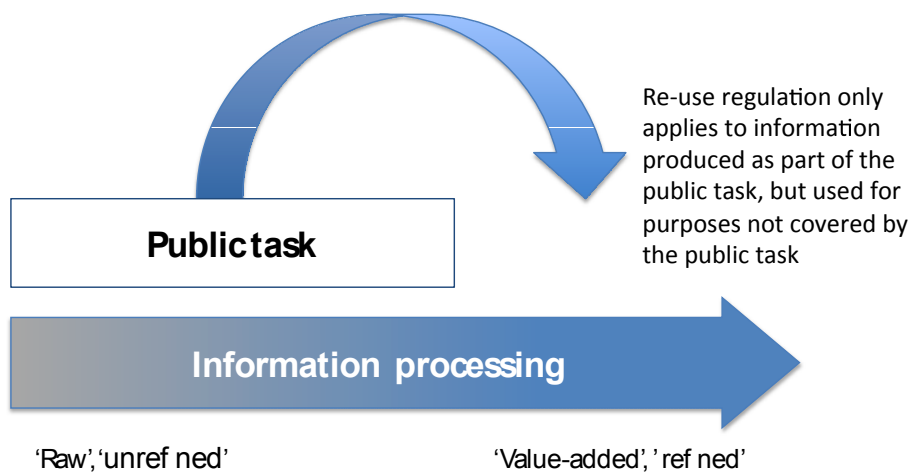
³⁵ OFT, 2006, 'The commercial use of public information (CUPI)', p 148, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>. It is also worth pointing out that the general need for a clear distinction between public and commercial activities of PSIHS had already been discussed in the Cross-cutting Review.

³⁶ OFT, 2006, 'The commercial use of public information (CUPI)', p 9, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>.

³⁷ Section 5 of the Re-Use Regulations.

³⁸ Section 4 of the Re-Use Regulations stipulates that 're-use means the use by a person of a document held by a public sector body for a purpose other than the initial purpose within that public sector body's public task for which the document was produced.'

³⁹ Lundqvist, B, Y Forsberg and M Vries, 'LAPSI 2.0 – competition law issues position paper', DRAFT, <http://www.lapsi-project.eu/sites/lapsi-project.eu/files/LAPSIartikelDraftInystart%20-%20Björn.pdf>



This fundamental point about the role played by definition of the public task is at the core of the competition concerns related to the interaction of upstream/downstream markets identified by the OFT. The Re-use Regulations would have maximum impact if the public task were limited to activities that are essentially non-contestable, which would then leave all potentially contestable activities open to competition.

The question of what falls inside or outside of the Coal Authority’s public task was the main issue in the long-running dispute between PinPoint Information Ltd and the Coal Authority (see Appendix B for more detail). In this case, a wide definition of the public task meant that the planned use of the information was claimed not to constitute re-use and thus fall outside of the scope of the regulations.

At the same time, a narrow public task definition could be problematic. As part of its review of OPSI’s investigation of a complaint made by Intelligent Addressing against OS, APPSI identified a number of concerns with the parallel application of the IFTS and the Re-use Regulations. Specifically, APPSI concluded that the complaint did not fall under the scope of the regulations because the supply of the data concerned was not part of OS’s public task, and the complaint was therefore not within APPSI’s remit. Flowing from this, APPSI recommended that the Government should consider combining the IFTS and the Re-use Regulations into one coherent scheme. It should also consider the possibility of an appeals process for decisions made by OPSI relating to IFTS (but not relating to the Re-use Regulations). OPSI issued a statement stating that it disagreed with some of APPSI’s conclusions, specifically APPSI’s interpretation of the Re-use Regulations and of OS’s public task, which led to the conclusion that the complaint was outside the scope of the regulations. More generally, OPSI highlighted that ‘one of the purposes of the PSI Regulations is to address competition issues’. It does not appear that substantial changes in OPSI’s function or procedures took place as a result of APPSI’s review.

- 4.7 In light of these findings, the OFT was clearly mindful of developing recommendations that could be implemented relatively easily. Specifically, the OFT was looking for solutions that:

- could be adopted without requiring primary legislation (which would have been needed, for example, if the OFT had recommended any divestment of refined information activities by PSIHS); and that
- would not have large financial implications for the Government.

4.8 For example, the OFT recognised the tensions between the trading fund model on the one hand, and initiatives that were aimed at making PSI available as widely and as cheaply as possible on the other. It noted that ‘the Re-use of Public Sector Information Regulations 2005, the Freedom of Information Act 2000, the Environmental Information Regulations 2004 and the Transformational Government initiative aim to make as much PSI available as widely and cheaply as possible. On the other hand, the trading funds' requirement to fulfil income-generating targets and the Wider Markets Initiative (WMI) encourage PSIHS to earn an income from selling or licensing PSI.’⁴⁰ The OFT went on to state that whilst ‘PSIHS earning an income from PSI is not incompatible with growth in the PSI sector ... the incentives behind the trading fund model and the WMI can aggravate a situation where a monopoly supplier of PSI also engages in refined information activities, **with insufficient scrutiny of their approach to equal access.**’ The OFT also made clear that ‘[i]t is not the OFT's role to decide who should fund the collection of PSI’, focusing its recommendations on addressing what it considered was a ‘lack of clarity around the objectives of government policy for PSI’⁴¹ and attempting to put in place measures that would provide or at least facilitate the necessary scrutiny.

4.9 At the same time the OFT pointed out that ‘a fuller assessment of whether PSI should be provided free is best carried out by Central Government. HMT's Cross-cutting Review recognised that further work should be undertaken by HMT and the DTI on the economics of information pricing with a view to developing further the evidence base and to inform future policy decisions. Many policy-setting bodies, PSIHS themselves and their business customers have told us that this work is necessary to arrive at the most efficient policy for PSI.’⁴² This means that some of the changes that the OFT might have liked to see were subject to the completion of further work. Similarly, the OFT identified a lack of clarity about the notion of the public task of PSIHS as a problem that could limit the effectiveness of the existing regulatory framework for re-use of PSI. Although the effectiveness of the Re-use Regulations would

⁴⁰ OFT, 2006, ‘The commercial use of public information (CUPI)’, p 14, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>.

⁴¹ OFT, 2006, ‘The commercial use of public information (CUPI)’, p 38, emphasis added, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>.

⁴² OFT, 2006, ‘The commercial use of public information (CUPI)’, p 11, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>.

therefore be strengthened through a requirement on PSIHs to define their public task (and ideally also to assess the competition implications of their public task definition), the OFT stopped short of making such a recommendation. We have not been able to ascertain the reason for this.⁴³

- 4.10 Instead, the OFT proposed a distinction between unrefined and refined information, which separates ‘the activities of a PSIH where it is a monopoly supplier (unrefined information) from those where there is scope for competition in supply (refined information)’.⁴⁴ This distinction – which, as the OFT explicitly stressed, is different from the distinction between public task and commercial activities⁴⁵ – is key to many of the OFT’s recommendations, and is crucial, for example, in order to verify whether equal access was given to re-users of information (ie whether the availability of unrefined information or the terms and conditions offered to third parties were the same as those that were being applied to the PSIH’s own refined operations).
- 4.11 Last but not least, the OFT’s concern about ease of implementation is clearly evident in its consideration of the cost of its proposed remedies. For example, the OFT notes that its package of recommended measures ‘requires some additional resources for OPSI’ but notes that ‘[t]he cost of these resources would be minimal compared to the untapped potential value to the economy from PSI. Even doubling OPSI’s £700,000 budget for the regulation of PSI would only represent around a quarter of a per cent of the potential value of PSI.’⁴⁶
- 4.12 The package of recommendations put forward by the OFT can be summarised as follows:
- To address the inadequate availability of unrefined information – PSIHs should apply the unrefined/refined distinction and make unrefined information available for any lawful re-use.

⁴³ OPSI has pointed out that the EU Directive which the Re-use Regulations transpose introduced the term ‘public task’ but did not provide a definition, and that it was therefore not possible to include a definition as part of the Re-use Regulations. However, the Guide to Regulations and Best Practice, which sat alongside the Re-use Regulations provide further guidance. OPSI also has addressed the issue of the public task as part of its awareness campaign and has produced further detailed guidance when it became clear that this would be helpful (see box at paragraph 7.18).

⁴⁴ OFT, 2006, ‘The commercial use of public information (CUPI)’, p 53, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>.

⁴⁵ In paragraph 7.22 of the CUPI report, the OFT states that ‘[i]t is important to note that unrefined information neither equates to other terms like ‘raw’ and ‘value-added’ nor to a PSIH’s statutory obligations/core/public task. It is a different concept in which unrefined information relates to the monopoly element of PSIHs’ activities.’ OFT, 2006, ‘The commercial use of public information (CUPI)’, p 128, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>

⁴⁶ OFT, 2006, ‘The commercial use of public information (CUPI)’, p 13, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>.

- To address the issue of overly restrictive terms – terms should be simple, flexible and appropriate for users’ needs.
- To address concerns about quality of service – PSIHs could consult on business plans and ensure that they supply PSI in a timely manner.
- To address potential high prices – PSIHs should account separately for unrefined and refined activities and allocate costs accordingly; prices should not allow refined activities to be cross-subsidised; and unrefined information should be available at the same price to third parties as to the PSIH’s refined information operations.
- To address issues raised regarding guidance documents – HMT and sponsoring departments should clarify guidance on pricing and cost allocation to address the OFT’s concerns.
- To address potential areas for improvement regarding the regulatory framework and compliance – OPSI should develop the IFTS and should be allocated sufficient resources to perform a strengthened role.

4.13 Table 1 below summarises the complete set of specific recommendations that were made to PSIHs in general and/or to Government, indicating which of the four broad areas of concern each recommendation was intended to address.

Table 1: Recommendations addressed to all PSIHs and to Government

Recommendation	Made to...	Aimed at addressing...			
		Inadequate availability	Inadequate quality of service	Restrictive licensing	Unduly high prices/ prices limiting competition
9.1 – PSIHs to make unrefined information available for re-use, at the earliest point of use and in a suitable form	PSIHs	x	x		
9.2 – PSIHs to clarify how the unrefined/refined distinction applies to their information	PSIHs	x		x	
9.3 – Third parties should be able to challenge the unrefined/refined distinction made by a PSIH	PSIHs and Govt.	x		x	
9.4 – PSIHs to comply with requests to make unrefined information available. Any refusals to be made known, with possible review by OPSI.	PSIHs and Govt.	x			
9.6 – PSIHs to address overly restrictive terms: remove non-compete conditions, make licence terms flexible and simple, make PSI available regardless of intended use, with licence periods suitable for users' needs. OPSI to monitor and to promote best practice.	PSIHs and Govt.			x	
9.7 – PSIH to improve accountability, eg publish and consult on business plans for future uses of unrefined information, establish stakeholder fora	PSIHs	x	x		
9.8 – PSIHs to provide unrefined information in a timely manner and publish target times to respond to customer requests as key performance measures	PSIHs		x		
9.9(a) – PSIHs to improve accounting practices, by accounting separately for activities relating to refined and unrefined information, with the basis of cost allocation decisions to be reviewed by OPSI	PSIHs and Govt.				x
9.9(b) – PSIHs to price unrefined information at <i>no more than</i> full cost recovery plus any required rate of return; and refined information at <i>no less than</i> full cost recovery plus any required rate of return. ⁴⁷ OPSI to review pricing decisions.	PSIHs and Govt.				x
9.10/9.11 – HMT (with participation from the OFT) and sponsoring departments to set out clear guidance on charging and cost allocation principles, in order to address the OFT's concerns	Govt.				x
9.12 – concerns with OS should be addressed without delay	PSIH and Govt.	x	x	x	x
9.14 – develop IFTS to test rigorously with compliance to the principle of allowing equal access to unrefined information. Include detailed scrutiny of determination of charges, of cost allocation systems and of accounting separation between unrefined and refined information activities.	Govt.			x	x
9.15 – full IFTS accreditation for PSIHs with income from the supply of PSI over £100,000 per annum	PSIHs and Govt.	x	x	x	x
9.16 – OPSI to consider the case for carrying out unannounced spot information audits	Govt.	x	x	x	x
9.17 – HMT to allocate sufficient resources to allow OPSI to perform its current duties and new ones required by OFT recommendations	Govt.	x	x	x	x
9.18 – HMT to require Chief Executive (or equivalent) of a PSIH to include a statement in the annual accounts confirming that it has complied with the cost allocation and charging requirements set out in HMT and OPSI guidance	Govt.				x
9.19 – UK audit offices should provide support to OPSI on request when specialist advice is required, eg in assessing PSIHs' cost allocation systems	Govt.				x
9.20 – PSIHs to set up procedures ensuring customers are treated fairly if they make complaints. IFTS to test for existence of such procedures.	PSIHs and Govt.		x		
9.21 – OPSI to amend its published procedures for investigating complaints, providing explicitly for the options of (a) fully or partly revoking a delegation of authority to a Crown body, and (b) recommending to a PSIH's parent department that the PSIH's refined information operations be divested	Govt.	x	x	x	x
9.22 – DTI to review the case for including documents held by Government research establishments within the scope of the Re-use Directive.	Govt.	x			

4.14 The recommendations can be seen as an overall package, with individual proposals working together and depending on each other for maximum effectiveness. For example, ensuring that PSIHs engage appropriately in their respective monopoly and contestable markets, through the process of effective mandated 'performance reviews' under the IFTS relies on:

- using the 'refined' and 'unrefined' definitions to distinguish between what is viewed as two distinct sets of business activities,
- using the IFTS as the primary mechanism through which monitoring and enforcement of PSIHs from a competition perspective would take effect;
- broadening the reach of the IFTS (by mandating the achievement of full accreditation within the IFTS of all PSIHs with an income of more than £100,000 from the supply of PSI); and
- bolstering OPSI as a competition watchdog (through increased funding to conduct thorough evaluations under the IFTS and enforcing participation of PSIHs that held PSI that was identified as having a potential re-use market).

Each element of this package of recommendations would need to be implemented for this approach to regulating PSIH behaviour (which effectively runs in parallel to the Re-use Regulation) to be effective. Leaving out any one recommendation would greatly reduce the impact of the others.

4.15 The OFT was keen to highlight that, while it sought to strengthen the pre-existing framework through guidance and general measures, it intended to evaluate the impact of its proposed recommendations within two or three years of the publication of its findings. It would also follow up with more direct measures imposed on specific PSIHs if it considered the response to its recommendations to be inadequate. Specifically, the OFT stated its intention to 'review the changes that arise, the effectiveness of our recommendations and take stock of the developments that have occurred since the publication of our report' and to 'consider whether it would be appropriate, if PSIHs have not implemented our recommendations, to propose legislation in order to realise their benefits ... [which] would not prevent the OFT from exercising its powers in the meantime, should it consider this to be appropriate.'⁴⁸

⁴⁷ If a PSIH currently sets prices for its unrefined information at or below marginal costs, change not recommended; in this case, it may not be necessary to allocate indirect/common costs to its unrefined information operations, though directly attributable costs should be identified and the pricing policy justified.

⁴⁸ Specifically in relation to OS, the OFT noted that '[w]e consider it essential that the issues set out above are resolved without delay.' The OFT would maintain an on-going dialogue with OS and its parent department (at the

4.16 While the OFT continued its engagement with stakeholders and remained involved (in particular in relation to changes made at OS) no formal evaluation of the impact of the CUIPI study has taken place until now.

Implementation of CUIPI

- 4.17 Below, we present a summary assessment of how the CUIPI recommendations have been implemented through subsequent developments, and how Government and PSIHs have responded to specific recommendations. A detailed assessment of the impact then follows in the next chapters through the in-depth analysis of direct effects and indirect effects.
- 4.18 The Government officially responded to the CUIPI study in June 2007. The response to the CUIPI study was published together with the Government's response to the POI review.⁴⁹ In its response, the Government welcomed many of its recommendations, though it made clear that some further work would be needed in particular to understand the impact of the changed data definitions (ie the suggested distinction between refined and unrefined information) and the implications of suggested pricing policies, in particular for trading funds. Specifically, in its response, the Government committed to:
- (a) creating an online channel for data requests (in principle, subject to funding); and to
 - (b) undertaking further work on trading fund charging policies, reserving the right to consider any changes affecting their charging policies or changes to OPSI's role and funding only after this work had been completed.
- 4.19 The Government also stated that it would produce six-monthly progress reports on the implementation of recommendations made in the CUIPI report and in the POI review, starting in December 2007. It appears that five such reports were produced. However, only one such report appears to have been actually published, in April 2008.⁵⁰

time, the Department for Communities and Local Government) and would 'need to consider whether further action by the OFT would be warranted to address these concerns' if they were not otherwise resolved. See OFT, 2006, 'The commercial use of public information (CUIPI)', p 138, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>.

⁴⁹ The POI review had been commissioned by the Cabinet Office shortly after the publication of the CUIPI report with the aim of identifying the potential social and economic benefits associated with making more PSI available. With regard to commercial use of PSI, the POI review made recommendations aimed at improving access to information. See Department for Trade and Industry (DTI), 2007, 'The Commercial Use of Public Information (CUIPI)', The Government Response to the Office of Fair Trading.

Study, <http://web.archive.org/web/20071025004119/http://www.berr.gov.uk/files/file39966.pdf>.

⁵⁰ BERR, 2008, 'Annex A, Progress Report: OFT Commercial Use of Public Information',

<http://webarchive.nationalarchives.gov.uk/20090416115353/http://www.opsi.gov.uk/advice/poi/cupi-progress.http://www.opsi.gov.uk/advice/poi/cupi-progress-report-01.pdf>. Amongst the points made in this report

- 4.20 Over the next two years, various pieces of further work were then commissioned or carried out by Government:
- a POI Task Force was created in March 2008, consisting of private and public sector representatives and tasked with developing the agenda set out in the POI review.⁵¹
 - the Cambridge study of charging models for trading funds was commissioned; and
 - the TFA was undertaken by HMT and ShEx.

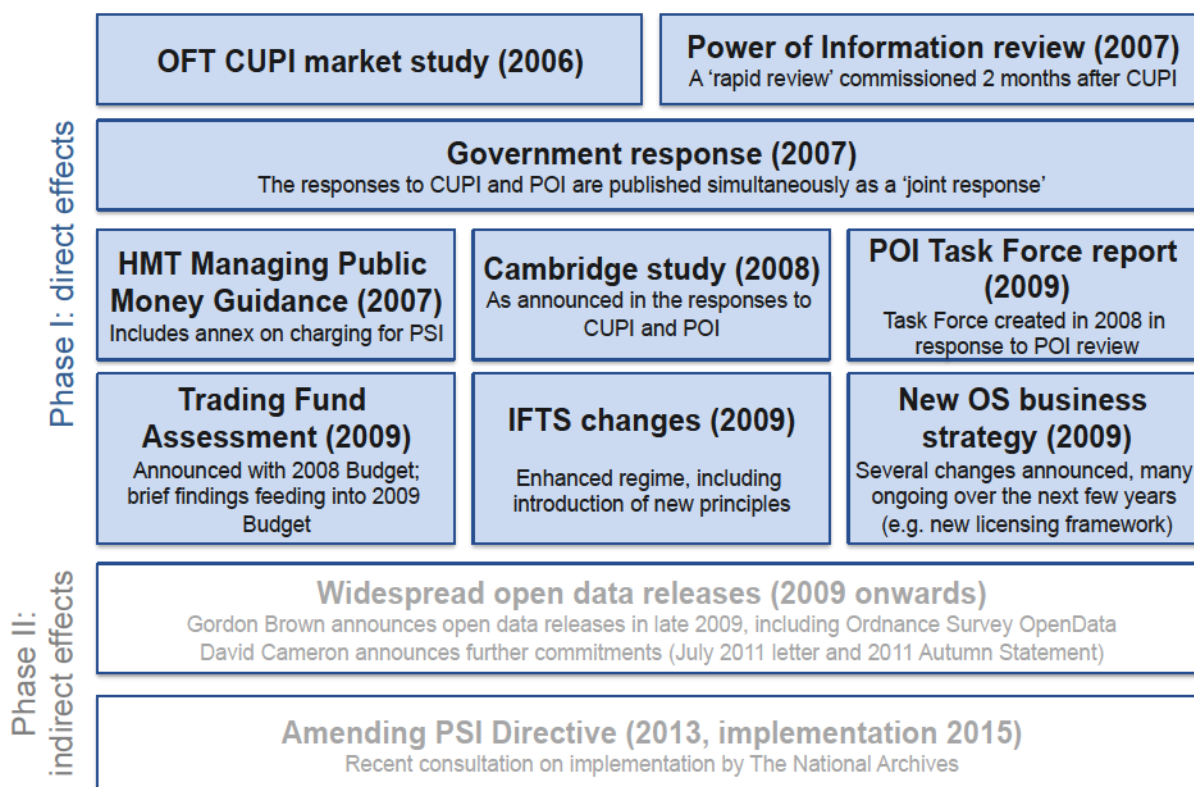
In addition, trading funds were asked to submit action plans for improving access to Crown Copyright information.

- 4.21 Some of this work – the study of charging models and the request for action plans – had been called for at the time of the Cross-Cutting Review in 2000, but did not take place until after CUPI had provided additional impetus.
- 4.22 In April 2009, together with high-level findings from the TFA, Government announced a new business strategy for OS and enhancements to the IFTS (both considered in detail subsequently). These announcements were the culmination of work that had been largely initiated by CUPI and, to some extent, they succeeded in progressing and implementing the OFT's recommendations.
- 4.23 From 2009 onwards, opening up data became an important area of focus for Government policy, with goals of increasing transparency and accountability, but also a recognition of potential economic benefits. This has had implications for the availability of PSI, as well as its pricing and the terms under which it can be used. CUPI was not the major driver behind this trend, but evidence indicates that it helped to raise awareness of the value of PSI to the economy, including the potential value achievable by promoting re-use. In this sense, CUPI may be seen to have accelerated some of the economic benefits brought about by Open Data.
- 4.24 The diagram below illustrates the key developments. Initiatives and measures shaded in blue are closely linked to the CUPI study and are responsible for the majority of direct effects. Greyed out developments are largely independent of the CUPI study, but we did identify some indirect effects in this second phase.

was an announcement that OPSI would promote IFTS Online to expand IFTS to the wider public sector. Also, three large PSIHS would join the IFTS in 2008 (Companies House, Coal Authority and NHS Information Centre – though the latter did not eventually join IFTS).

⁵¹ <http://powerofinformation.wordpress.com/about>

Figure 2: Developments in PSI post OFT CUPI study



































4.25 Table 2 below provides an overview of the relevant steps taken to implement each individual recommendation. Included is a summary assessment of the degree of implementation and of the extent of market impact for each recommendation. Note that these two measures should not necessarily be correlated – for instance, some of the recommendations are of relatively minor importance and cannot reasonably be expected to have a large market impact if implemented, whereas more substantive recommendations may have a significant impact even if only partly implemented.



Table 2: Summary of implementation and impact of each recommendation

Key:					
Degree of implementation	The recommendation has not been implemented			The recommendation has been fully implemented	
Materiality of market impact	The recommendation has had no material impact on market outcomes			The recommendation has had a very large (positive) impact on market outcomes	

Recommendation	Made to...	Summary of key developments	Degree of implementation	Materiality of market impact
9.1 – PSIIs to make unrefined information available for re-use, at the earliest point of use and in a suitable form 9.4 – PSIIs to comply with requests to make unrefined information available. Any refusals to be made known, with possible review by OPSI.	PSIIs	Action plans requested from trading funds, stating how they would further open access to information for commercial re-use. Action plans submitted in 2008. Limited evidence of tangible impacts. Cambridge study argued for release of unrefined information at marginal cost. TFA		

Recommendation	Made to...	Summary of key developments	Degree of implementation	Materiality of market impact
		identified making information easily available as good practice. Revised IFTS created re-use obligation unless there are strong reasons to the contrary. Government focus on transparency and Open Data from 2009, though largely unrelated to CUPI, had a considerable impact on availability of unrefined information.		
9.2 – PSIHs to clarify how the unrefined/refined distinction applies to their information	PSIHs	Generally not implemented. Cambridge study favoured upstream/downstream terminology over unrefined/refined. Nevertheless, it identified, for six large trading funds, products that roughly approximated to unrefined information. OS user workshops explored the unrefined/refined distinction. However, there is limited evidence, at best, of PSIHs seeking to ultimately apply the definition to their own activities in practice, or of Government pushing them to do so. An upstream/downstream distinction is part of the IFTS performance management framework, though IFTS reports indicate that this aspect of requirements is not applied stringently.		
9.3 – Third parties should be able to challenge the unrefined/refined distinction made by a PSIH	PSIHs and Govt.	Generally not implemented, given that the distinction itself has not been adopted.		
9.6 – PSIHs to address overly restrictive terms: remove non-compete conditions, make licence terms flexible and simple, make PSI available regardless of intended use, with licence periods suitable for users' needs. OPSI to monitor and to promote best practice.	PSIHs	TFA principles of good practice largely reflect these recommendations. Expansion of IFTS, and enhancement (eg new simplicity principle) help to address these to an extent. OS made clear improvements with a new licensing framework. Government focus on transparency and Open Data from 2009, though largely unrelated to CUPI, had a considerable impact on the amount of information provided without restrictions or complex terms.		
9.7 – PSIH to improve accountability, eg publish and consult on business plans for future uses of unrefined information, establish stakeholder fora	PSIHs	Mixed response – some PSIHs have engaged more with stakeholders, but far from universal.		
9.8 – PSIHs to provide unrefined information in a timely manner and publish target times to respond to customer requests as key performance measures	PSIHs	Requirement to publish target response time now included in all delegations of authority from OPSI (so implemented for the applicable PSIHs). Market impact likely to have been limited.		
9.9(a) – PSIHs to improve accounting practices, by accounting separately for activities relating to refined and unrefined information, with the basis of cost allocation decisions to be reviewed by OPSI	PSIHs and Govt.	Refined/unrefined distinction not adopted. TFA principles of good practice highlight accounting separation. The IFTS performance management framework includes formal accounting separation, but only as an example of 'best practice'. HMT Managing Public Money states that trading funds are free to choose how to allocate fixed costs to various products. Generally, little or no evidence of PSIHs implementing the recommendation in practice in verifiable form.		
9.9(b) – PSIHs to price unrefined information at <i>no more than</i> full cost recovery plus any required rate of return; and refined information at <i>no less than</i> full cost recovery plus any required rate of return. If a PSIH currently sets prices for its unrefined information at or below marginal costs, change not recommended; then, it may not allocate indirect/common costs to its unrefined information operations, though directly attributable costs should	PSIHs and Govt.	HMT Managing Public Money, which is by design a modernised and principles-based successor to 'Government Accounting', states that for the supply of information on a re-use basis, charging at marginal cost is the norm for raw data and charging at full cost is the norm for value added data and information supplied by trading funds. It also states that trading funds are free to choose how to allocate fixed costs to various products.		

Recommendation	Made to...	Summary of key developments	Degree of implementation	Materiality of market impact
be identified and the pricing policy justified. OPSI to review pricing decisions.		Unlike CUPI, Cambridge study specifically advocated marginal cost pricing for the release of unrefined information.		
9.10/9.11 – HMT (with participation from the OFT) and sponsoring departments to set out clear guidance on charging and cost allocation principles, in order to address the OFT's concerns	Govt.			
9.12 – address concerns with OS without delay	PSIH and Govt.	Issues such as the unrefined/refined split and potential accounting separation were considered in follow-on work, but no implementation took place. The new business strategy and streamlined licensing framework have brought about improvements, particularly regarding licence simplicity and (to some extent) restrictive terms. There is still significant evidence of potential competition concerns.		
9.14 – develop IFTS to test rigorously with compliance to the principle of allowing equal access to unrefined information. Include detailed scrutiny of determination of charges, of cost allocation systems and of accounting separation between unrefined and refined information activities.	Govt.	The IFTS performance management framework formally attributed some importance to upstream/downstream accounting separation and equal access. However, IFTS does not require compliance with these principles. It recognises the importance of a clear and transparent pricing policy, but not of cost allocation systems. The unrefined/refined distinction has not been adopted. In practice, IFTS verifications appear to fall some way short of fully implementing this recommendation.		
9.15 – full IFTS accreditation for PSIHs with income from the supply of PSI over £100,000 per annum	PSIHs and Govt.	OPSI has promoted expansion of the significantly more limited IFTS Online service, rather than full IFTS accreditation, as recommended by the OFT. Nevertheless, selected large PSIHs such as the Coal Authority and Companies House were targeted, and the number of full IFTS members has continued to grow gradually. Market impact is limited by response to other recommendations (eg 9.14, 9.17)		
9.16 – OPSI to consider the case for carrying out unannounced spot information audits	Govt.	It was concluded that the use of spot audits would be considered as part of the IFTS process, where appropriate and in accordance with Hampton principles. No evidence of market impact.		
9.17 – HMT to allocate sufficient resources to allow OPSI to perform its current duties and new ones required by OFT recommendations	Govt.	There has not been a significant step change in the resources available to OPSI.		
9.18 – HMT to require Chief Executive (or equivalent) of a PSIH to include a statement in the annual accounts confirming that it has complied with the cost allocation and charging requirements set out in HMT and OPSI guidance	Govt.	Implemented in HMT Financial Reporting guidance, effective from the 2008/09 financial year. Practical impact likely to have been negligible (especially since OPSI and HMT guidance has not been updated to reflect all of the OFT recommendations).		
9.19 – UK audit offices should provide support to OPSI on request when specialist advice is required, eg in assessing PSIHs' cost allocation systems	Govt.	Discussions and a workshop were held in relation to this recommendation. No specific measures were implemented – OPSI may opt to seek specialist support when required. This recommendation would have carried greater significance if the OFT's other relevant recommendations, eg on cost allocation, had been more strictly implemented.		
9.20 – PSIHs to set up procedures ensuring customers are treated fairly if they make complaints. IFTS to test for existence of such procedures.	PSIHs and Govt.	Already existing policy – no evidence of increased monitoring/enforcement. OPSI asked PSIHs to include a statement to this effect in their published procedures.		
9.21 – OPSI to amend its published procedures for investigating complaints, providing explicitly for the options of (a) fully or partly revoking a delegation of	Govt.	OPSI included these provisions in its published documents September 2007. These options have never been exercised and there are reasons to believe that in many		

Recommendation	Made to...	Summary of key developments	Degree of implementation	Materiality of market impact
authority to a Crown body, and (b) recommending to a PSIH's parent department that the PSIH's refined information operations be divested		cases they do not constitute 'credible threats', such that the impact of this recommendation is likely to be limited.		
9.22 – DTI to review the case for including documents held by Government research establishments within the scope of the Re-use Directive.	Govt.	The matter was considered subsumed by the review of the PSI Directive. The amending Directive does not apply to research establishments.		

5. Qualitative assessment: Direct effects

- 5.1 This chapter provides a detailed analysis of the direct effects associated with the CUIPI recommendations. Specifically, we look at the Government response to the study and consider further work that was triggered by this. We also look at direct responses by PSIHs, the changes at OPSI, and the changes at OS, which had been singled out in the CUIPI study for its importance and the extent to which its behaviour gave rise to competition concerns.
- 5.2 Overall, we find that while some of the OFT's recommendations resulted in further actions and in some cases change, the OFT's most substantive recommendations have not been fully implemented.
- 5.3 The resulting market impact of the study falls short of the target that the OFT had aimed for and there remains some concern regarding the potential for anti-competitive behaviour.
- Action in response to many of the recommendations seems to have been delayed, pending the outcome of further work that was considered to be necessary in order to establish the impact of the OFT's recommendations on the profitability of trading funds. The protracted nature of the Government's approach, with various parties being involved, appears likely to have delayed changes in response to CUIPI that might otherwise have happened earlier.
 - In many cases, the responses by Government and PSIHs tended to take the form of high-level principles, as opposed to tangible changes, and there are many instances where there is a clear disconnect between announcements made and steps taken in practice by PSIHs.
- 5.4 The OFT continued to engage with various stakeholders after publication of the CUIPI report. Most notably, it engaged with HMT in relation to guidance documents, with ShEx and other stakeholders as part of the TFA, and with OS directly. However, it would seem that despite this on-going involvement the OFT was unable to secure a full implementation of some key recommendations.
- 5.5 There is support for the idea that the CUIPI study facilitated or accelerated the increase in the amount of PSI available, but the most significant expansions took place from 2009 onwards, primarily driven by the transparency and Open Data objectives of successive Governments.

5.6 The OFT's recommendations appear to have had the most tangible impact with regard to licensing issues – including complexity and restrictive terms – and quality of service. The introduction of a new licensing model for OS is perhaps the clearest example of this, though it is notable that the new model was rolled out some four years after the publication of the CUPi report.

Stakeholder view of the overall impact of the CUPi study

The overall view expressed by stakeholders as part of our stakeholder engagement exercise was that the CUPi study was a landmark initiative relating to PSI re-use and had a positive effect in highlighting the potential value of the PSI market and identifying competition problems that were hindering the expansion of the PSI sector to its full potential.

In support of this general sentiment expressed by several stakeholders, individual stakeholders noted that:

- The CUPi report was published in a context of already on-going discussions regarding re-use of PSI - it was not an isolated event, but rather 'an important step in a journey'.
- It was the first major attempt to put forward economic arguments in relation to PSI issues and probably played a role in accelerating the debate.
- At least partially as a result of the CUPi study, 2006 became a 'tipping-point' in which developments were accelerated based on a notion of PSI as 'fuel for the new economy'.
- In a sense, CUPi acted as a catalyst, creating momentum behind the efforts made in the following months and years to address features holding back the growth of markets based on PSI.
- CUPi also appears to have had some influence on the development of the transparency and Open Data agenda, and it was noted that the CUPi study included clear statements about what was a good/bad business model.

5.7 A comprehensive account of the reasons why some major CUPi recommendations, such as separate accounting for the unrefined and refined information activities, were not implemented has not been possible as many of the relevant discussions took place several years ago and, in some cases, behind closed doors. For example, potential accounting separation for OS was the subject of on-going discussions in the years following CUPi and was initially expected to be implemented. However, these discussions were then subsumed into the TFA, which was not published, and the plan for accounting separation was subsequently abandoned.

5.8 From the evidence available to us, we can generalise (somewhat speculatively) that the following reasons all have played a part in preventing a fuller implementation of the OFT's recommendations:

- competing interests and the influence of stakeholders such as HMT and ShEx (whose aim is 'to be an effective shareholder of businesses owned or part-owned by the government and to manage government's interventions in the private sector in order to secure best value for the taxpayer'⁵²);
- the difficulty – actual or perceived – of applying some of the OFT's recommendations in practice without the need for further work, eg in relation to establishing a consensus over which of a particular PSIH's activities or products can reasonably be classified as unrefined and understanding the funding implications of the OFT's recommendations in relation to pricing and accounting separation; and
- the limitation in the OFT's follow-up competition advocacy work, where after a period of close involvement with on-going work in the short term, resources, priorities and third party interests appear to have shifted in a way that limited the OFT's ability to apply further pressure.

Government response to the CUPI report

5.9 In its response to the CUPI study, in June 2007, the Government accepted many of the OFT's recommendations. It:

- encouraged the expansion of the IFTS to cover all PSIHs with PSI income over £100,000 – IFTS was expanded, though much of the expansion was achieved through the relatively limited IFTS Online process rather than through full IFTS membership;
- asked that each relevant trading fund provide a plan for further opening of access to their information – the request was made in late 2007 and action plans were received in 2008;
- explained that the OFT's work provided helpful momentum for further work on the economics of information pricing which had been put on hold – in practice, BERR and HMT commissioned the Cambridge study to explore this topic;
- accepted that the Chief Executive or equivalent of a PSIH should include a statement in annual accounts confirming compliance with HMT and

⁵² See <https://www.gov.uk/government/organisations/the-shareholder-executive>.

OPSI guidance in regard to cost allocation and charging requirements – in practice this was implemented from the 2008/09 financial year.

- 5.10 The calls for trading funds to prepare action plans and for further work to be carried out on the economics of information pricing date back to the Cross-Cutting Review in 2000. These calls do not appear to have been answered until after the CUIPI study was published, reflecting the relative inertia in the first half of the decade and that CUIPI had acted as a catalyst. Indeed, the Government response to CUIPI itself acknowledged, in relation to the work on the economics of information pricing, that '[t]his work had been put on hold, but the importance attached to this aspect of the public information sector by the OFT provides helpful momentum for this work now to be taken forward'.⁵³
- 5.11 However, two particular aspects of the CUIPI study met with resistance by Government in its response.
- (a) First, the Government was concerned that the proposed definitions of unrefined/refined information might introduce additional complexity. The Government accepted the need for greater clarity, noting that the current definitions of different types of information came from a mix of sources, such as the Cross-cutting review, which distinguished between raw and value-added information, and the Re-use Regulations, whose provisions applied to public task documents. However, the response then goes on to state that '[t]he situation is already complex and introducing new terms may not be helpful as existing definitions cannot be replaced or removed.'⁵⁴
- (b) Second, the Government recognised that the OFT's definition aimed at separating contestable from non-contestable activities undertaken by PSIHs and noted that PSIHs should be able to allocate data and costs along these lines. However, it then stated that any guidance given in this regard should 'recognise the role of the PSIH in ensuring that the statutory or public remit is not jeopardised' as 'information being allocated in a different category to where it currently sits ... could have implications for the price of that information.' It was concluded that 'Government will need to investigate further the potential public expenditure impacts of this before being able to accept it.'⁵⁵ This means that the Government was

⁵³ Department for Trade and Industry (DTI), 2007, 'The Commercial Use of Public Information (CUIPI)', The Government Response to the Office of Fair Trading Study,

<http://web.archive.org/web/20071025004119/http://www.berr.gov.uk/files/file39966.pdf>

⁵⁴ Department for Trade and Industry (DTI), 2007, p 4, 'The Commercial Use of Public Information (CUIPI)', The Government Response to the Office of Fair Trading

Study,<http://web.archive.org/web/20071025004119/http://www.berr.gov.uk/files/file39966.pdf>

⁵⁵ Department for Trade and Industry (DTI), 2007, p 4, 'The Commercial Use of Public Information (CUIPI)', The Government Response to the Office of Fair Trading Study,

<http://web.archive.org/web/20071025004119/http://www.berr.gov.uk/files/file39966.pdf>

concerned that any changes to accounting and pricing practices for trading funds might affect their profitability, which might undermine their ability to support data maintenance and future investment. In turn, this might have significant public expenditure implications.

- 5.12 Thus, the distinction between unrefined and refined information, which was a cornerstone for many of the OFT's recommendations, failed to gain traction. The relevant recommendations relating to accounting separation and pricing principles to ensure equal access to information for which the respective PSIH was the only source could still have been adopted in accordance with an alternative distinction, and the Cambridge study suggested that alternative terminologies, such as upstream/downstream, may be preferable.⁵⁶ However, there appears to have been a protracted debate about terminology, which has distracted attention and ultimately delayed any real impact. Not only has the terminology not been adopted by Government or by PSIHs, but there also has been no alternative operational distinction on the basis of which contestable and non-contestable activities have been separated.

Stakeholders on the refined v unrefined information distinction

The distinction between unrefined and refined information that underpinned many of the OFT's recommendations (in particular in relation to pricing) was seen to be confusing and the terminology was generally regarded as unhelpful. The concepts were seen to be difficult to apply, and might be appropriate for some, but not other PSIHs.

At the same time, the underlying notion is still relevant today and could be helpful in developing a more coherent policy stance, eg in relation to tensions between commercialisation objectives and Open Data objectives.

One potential cause for confusion was that the notion of 'unrefined' information may have had a connotation of little skill or judgment being required in its creation, which was not how PSIHs would have seen their activity.

- 5.13 Superficially, some Government initiatives conformed with the OFT's core recommendations. For example, the TFA identified accounting separation as a key element of good practice and the enhanced IFTS acknowledged the importance of an upstream/downstream distinction, with the downstream arm operating on the same term as third parties. Moreover, the TFA findings supported clearly an independently defined public task, which might help to

⁵⁶ Newbury, D, L Bentley and R Pollock, 2008, 'Model of Public Sector Information Provision via Trading Funds', Cambridge University, footnote on p.57, <https://www.opsi.gov.uk/advice/poi/models-psi-via-trading-funds.pdf>

ensure fair competition between PSIHs and third parties in activities beyond the public task, even if these did not correspond exactly to the refined activities envisaged by the OFT.

- 5.14 However, compliance with these various principles has generally not been enforced, with little evidence of substantial improvements in these areas since the CUPi study was published. The extent of residual problems in the market (discussed in more detail in chapter 7 below) indicates that the related concerns have not been eliminated.

Further work linked to CUPi

- 5.15 As noted above, CUPi acted as an important catalyst for further work carried out, or commissioned by Government. Although the process was somewhat protracted, some specific changes were produced that are clearly linked back to the CUPi study, including a new business strategy for OS and enhancements to the IFTS.

Managing Public Money

- 5.16 As anticipated in the Government's response of June 2007 to the CUPi report, the OFT was given the opportunity to comment on draft guidance prepared as part of HMT's work announced in April 2006 on the modernisation of 'Government Accounting'.⁵⁷ 'Managing Public Money'⁵⁸, which by design is a modern and principles-based successor to 'Government Accounting', was issued by HMT in July 2007, shortly after the Government's response to CUPi and from October 2007 formally replaced 'Government Accounting' and the 1992 Fees and Charges Guide. Chapter 6 of 'Managing Public Money' sets out guidance on fees, charges and levies. Annex 6.2 deals specifically with Charging for Information.
- 5.17 This Annex sets out the Government's policy on charging for information that is supplied on a re-use basis. It explains that:
- raw data should normally be licensed and charged for at marginal cost with value added data normally charged at full cost including an appropriate rate of return;

⁵⁷ The OFT in its CUPi study found that stakeholders had 'difficulties in applying the [existing costing and pricing] principles in practice.' In light of this the OFT stated that it would work with HMT on its 'Modernisation of Government Accounting'. In particular, the OFT envisaged 'providing input on competition and economic issues to ensure the new document provides greater clarity on the guidance to PSIHs and, crucially, reflects the relevant recommendations made as a result of this market study.' See OFT, 2006, 'The commercial use of public information (CUPi)', p 50-52, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>

⁵⁸ <http://webarchive.nationalarchives.gov.uk/20140402142426/http://www.oft.gov.uk/OFTwork/markets-work/public-information>

- all information supplied by trading funds on a re-use basis is normally charged for in the same manner as value-added data (ie at full cost including appropriate rate of return) regardless of whether the information is raw or value-added; and
- it explains also that ‘trading funds are free to choose how they allocate their fixed costs to their various products when pricing their information services’.⁵⁹

5.18 The complete freedom given to trading funds in relation to how they allocate costs does not appear to reflect the OFT’s fundamental recommendations on cost allocation and on limiting the potential for cross-subsidisation.

Cambridge study

5.19 As promised in the responses to CUPI and the POI review, the Government commissioned an independent study on Models of Public Sector Information Provision via Trading Funds (the ‘Cambridge study’⁶⁰) in July 2007. It was completed in February 2008.

5.20 This study focused on bulk digital products, which were said to approximately correspond to the OFT’s notion of unrefined information, and on the six largest trading funds by data provision. The theoretical and empirical analysis compared outcomes under an average cost pricing regime to those under a marginal cost pricing regime.

5.21 In summary, the Cambridge study found that significant net economic benefits could be achieved by moving to a marginal cost pricing policy for unrefined information held by a priority group of six large trading funds (OS, Met Office, UK Hydrographic Office, Companies House, DVLA and the Land Registry). For registration-based trading funds (DVLA, Companies House and the Land Registry) this move was found likely to be feasible without additional public funding. For the others, there would be likely public expenditure implications. It is estimated that the increases in required subsidies for the Met Office and the UK Hydrographic Office would each be less than £1m, but for OS the figure is estimated at £30m. However, the study notes that this change would still mean that OS receives substantially less money from Government than the Met Office; the estimated net welfare change is substantial (£156m) and remains positive even under the most conservative assumptions.

⁵⁹ See Annex 6.2, HMT, 2013, ‘Managing public money’, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/212123/Managing_Public_Money_AA_v2_-_chapters_annex_web.pdf

⁶⁰ Newbury, D, L Bentley and R Pollock, 2008, ‘Model of Public Sector Information Provision via Trading Funds’, Cambridge University, <https://www.opsi.gov.uk/advice/poi/models-psi-via-trading-funds.pdf>

- 5.22 It also noted that the unrefined/refined terminology had some unfortunate connotations that created ambiguity and distracted from the OFT's intended meaning. Therefore, the authors suggested the use of alternative terms such as upstream/downstream or contested/non-contested might be preferable and that changing to these terms would not compromise the OFT's intended meaning.
- 5.23 The Cambridge study was published in 2008 and Government announced that it would undertake an assessment of trading funds looking at what information held by PSIHs was required by Government for public tasks and ensuring that this was made available as widely as possible for use in downstream markets. With regard to pricing, it would 'ensure that information collected for public purposes is priced so that the need for access is balanced with ensuring that customers pay a fair contribution to the cost of collecting this information in the long term'.⁶¹ As part of its asset management activity, Government would 'undertake an assessment of the governance, business plans and future development strategies of each of the trading funds and a selection of public corporations'.⁶²

Trading Fund Assessment

- 5.24 The TFA was carried out by ShEx and HMT, drawing on previous work, including CUPI, the POI review and the Cambridge study. The steering group included representatives from ShEx, HMT, BERR, Cabinet Office, OFT and OPSI. The terms of reference stated that the work would include an assessment of the governance, business plans and future development strategies of all trading funds and that it should produce:
- clear recommendations on the future of the trading fund model or constitution of individual trading funds as appropriate; and
 - for the six largest trading funds, an attempt to produce a detailed and definitive information pricing and access policy for trading funds, and their optimal constitutional structure, to maximise benefit to the UK economy whilst maintaining public policy objectives.
- 5.25 Before any findings from the TFA were made available, the POI Task Force produced its final report in February 2009. The Task Force's recommendations re-iterated many of the earlier findings, including a call for OPSI to develop stringent tests for exceptions to marginal cost pricing and a reminder that OS required urgent reform, including the release of several free

⁶¹ See paragraph 3.49, HMT, 2008, 'Budget 2008, 'Stability and opportunity: building a strong, sustainable future', p 51, available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/250345/0388.pdf

⁶² Ibid, paragraphs 3.49 and 5.14

datasets and improvements to licensing conditions. This suggests that little progress had been made on these matters by the beginning of 2009.

5.26 The complete findings of the TFA have not been published, but a brief summary was included in the Operational Efficiency Programme final report, alongside the 2009 Budget report.⁶³ The TFA set out the principles of good practice which required that:

- information should be made easily available – where possible at low or marginal cost;
- there should be clear and transparent pricing structures for information, with different parts of the business accounted for separately;
- licences should be simple and transparent to facilitate the re-use of information for purposes other than that for which it was originally created; and
- the core purposes ('public tasks') of the organisations should be clearly and independently defined, including input from customers and stakeholders.

OPSI would provide 'enhanced oversight and governance to ensure application of these principles'.⁶⁴

5.27 It was also announced that the Government was publishing a new business strategy for OS that 'balances the requirement to maintain the highest quality standards with the need to significantly enhance ease of access to geographic data and services for both commercial and non-commercial use.'⁶⁵

5.28 Although the OFT was represented on the steering group for the TFA, evidence indicates that the OFT's influence on the overall process was relatively limited. The OFT observed that there was an inherent tension affecting the TFA, as it appeared to be trying to reconcile commercialisation objectives in line with the Operational Efficiency Programme and the Wider Markets Initiative with incompatible objectives related to CUP and POI.

5.29 The OFT also noted some confusion about the concept of public task: many stakeholders interpreted the definition of public task as a purely political decision, but the OFT sought to highlight the problems that would result from a definition of the public task that was entirely unrelated to an assessment of

⁶³ HMT, 2009, 'Operational Efficiency Programme: final report', p 41,

http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/d/oep_final_report_210409_pu728.pdf

⁶⁴ Ibid, p.41

⁶⁵ Ibid, p.47

upstream and downstream activities based on contestability. Though the OFT did accept (as in the CUPi report itself) that there may be valid reasons why the public task should not exactly correspond to ‘upstream’ or ‘unrefined’ activities, it emphasised the importance of establishing accounting separation between upstream and downstream operations, regardless of how the public task itself might be defined.

- 5.30 When the TFA findings and the revised OS business strategy were published, the OFT Board’s reaction was that ‘despite significant investment by the OFT throughout the CUPi study and following its publication (engaging with OS, potential competitors, ShEx and sitting on the steering group) it seems that the proposals made as a result of the OFT study will not be fully acted upon. On the basis of the limited information we have been given by OS, we believe they will not adequately address these concerns.’⁶⁶ The OFT accepted that the new OS business strategy reflected some of the recommendations made in CUPi,⁶⁷ but also expressed the opinion that it may not suffice to address competition concerns adequately.⁶⁸ The OFT also emphasised the importance of OS delivering on commitments and advised that Government and OS should remain ‘ready to consider other solutions, including different forms of separation’.⁶⁹ The OFT remained open to the possibility of taking further action through the tools it had available – namely, opening a Competition Act case or making a referral to the Competition Commission for a market investigation. However, no further action was taken.
- 5.31 It is not clear to what extent the TFA actually produced a definite information pricing and access policy for the six largest trading funds, as set out in the terms of reference, or indeed what specific changes have been made by trading funds in response to the TFA, other than the changes that came from OS’s new business strategy. Indeed, it would seem that the TFA effectively focused on OS rather than trading funds in general. As OPSI states, ‘[d]uring the Assessment, it became apparent that the primary focus was on Ordnance Survey and the need to develop a new business strategy for the organisation

⁶⁶ OFT, 2009, ‘Minutes of the Office of Fair Trading Board Meeting’, http://webarchive.nationalarchives.gov.uk/20140402142426/http://www.oft.gov.uk/shared_of/board/689234/April09.pdf

⁶⁷ http://webarchive.nationalarchives.gov.uk/20090609003228/http://www.oft.gov.uk/advice_and_resources/resource_base/market-studies/completed/public-information

⁶⁸ OFT, 2009, ‘Minutes of the Office of Fair Trading Board Meeting’, http://webarchive.nationalarchives.gov.uk/20140402142426/http://www.oft.gov.uk/shared_of/board/689234/April09.pdf

⁶⁹ OFT, 2009, ‘OFT responds to new commercial strategy for Ordnance Survey’, http://webarchive.nationalarchives.gov.uk/20090609003228/http://www.oft.gov.uk/advice_and_resources/resource_base/market-studies/completed/public-information

in light of technological, market and other drivers for change.⁷⁰ To date, clear separate accounting for different parts of the business is not universal across trading funds.

Direct PSIH response

- 5.32 Evidence that PSIHs altered their behaviour directly as a consequence of CUPI – with no intermediate steps or interventions – is fairly limited. Though some specific effects can be identified⁷¹ responses from our case studies suggest that PSIHs mostly awaited further developments given that Government had been called to task and had also announced that further guidance in relation to many of the recommendations addressed to PSIHs would be forthcoming.
- 5.33 Below, we outline the available evidence of direct responses, such as from trading fund action plans and more generally through changes in approach and thinking.

Trading fund action plans

- 5.34 All trading funds were required by the Chief Secretary to the Treasury to prepare action plans detailing their approach to improving access to Crown Copyright information. The action plans were due to be submitted by the end of the 2007-08 financial year. We understand that all trading funds complied with this request; however, many did not meet the deadline, which was itself already over a year after the publication of the CUPI report.
- 5.35 The request for action plans appears to have been tied specifically to the OFT's recommendation 9.4 which asked for PSIHs to comply with requests to make unrefined information available (and make any refusal to do so known). The scope of the request was also limited in the sense that it did not include any PSIHs that were not trading funds. Though the request for action plans seems not to have extended to any of the other recommendations made by the OFT, some of the respondents went beyond what was requested and considered also issues raised by the other recommendations.

⁷⁰ OPSI, 2009, 'The United Kingdom Report on the Re-Use of Public Sector Information, unlocking psi potential', Presented to Parliament by the Lord Chancellor and Secretary of State for Justice by Command of Her Majesty, <http://www.nationalarchives.gov.uk/documents/information-management/uk-report-reuse-psi-2009.pdf>

⁷¹ For example, OS removed a 'non-compete' licence exception policy that the OFT had criticised soon after the CUPI study was published, though the OFT suggested in response that this was a relatively superficial change, since it had 'not seen any specific change of policy in determining to whom OS will grant a licence' (see paragraph 4.27, Select Committee on Communities and Local Government Committee Written Evidence, 'Memorandum by the Office of Fair Trading', <http://www.publications.parliament.uk/pa/cm200708/cmselect/cmcomloc/268/268we05.htm>).

5.36 We have obtained the action plans submitted by a number of PSIHS from OPSI, and a brief summary of these plans is provided below.

Action plans

We have received from OPSI copies of the action plans submitted by the Met Office, OS, the UK Hydrographic Office, the Land Registry, Companies House, the Medicines and Healthcare Products Regulatory Agency, the Driving Standards Agency, the Fire Service College and the Vehicle and Operator Services Agency.⁷²

The last of these noted that it did not hold delegated authority for its licensing and thus could not propose any actions. The Met Office outlined its existing commitments and practices, but stated that it would liaise with Government stakeholders to refine the public task definition, explore ways further to improve the arrangements that the OFT had praised, and take account of ideas presented by the other action plans.

OS similarly noted its existing activities (eg OpenSpace, which was influenced by the CUPI study) and referred to on-going work with the OFT on 'establishing and agreeing the boundaries of its upstream and downstream activities, and the accompanying basis for cost allocations', and revisions to licensing approach. However, given that the TFA had been announced, OS made it clear that '[f]inal decisions on the approach to be adopted will therefore require the close involvement of HMT and ShEx'.

The Hydrographic Office pointed out that, despite already following good practice, it had in consultation with licensees identified areas of possible improvement. Actions would be implemented over 18 to 24 months and would include an expansion of the criteria under which users would qualify for a free licence, various improvements in its technological capabilities, an improved and simplified licensing process and an intention to review its public task.

⁷² At the time the request was made, the following organisations were trading funds (though not all of them will have held PSI that could be re-used): Army Base Repair Organisation; Central Office of Information; Companies House; Defence Aviation Repair Agency; Driving Standards Agency; Defence Science and Technology Laboratory; Driver and Vehicle Licence Agency; Fire Service College; Land Registry; Met Office; Medicines and Healthcare Products Regulatory Agency; OGC Buying Solutions; OS; UK Intellectual Property Office; QEII Conference Centre; Royal Mint; UK Hydrographic Office; and Vehicle and Operator Services Agency

The Land Registry pointed out that copies of registers and title plans were already available online, and that it was in the process of moving the services to a new, improved website ('Portal'). Property Price Information was also already available to subscribers and sent to them individually, but would become available for download with the launch of the Portal. The Land Registry also indicated that it was involved in on-going discussions with OS to try and remove the constraints on its Polygon data arising from underlying OS IPR. At the same time, the Land Registry highlighted concerns about potential mis-use of its data when it is made easily accessible, and that its action plan was subject to constraints related to personal data and possible mis-use. The organisation also made clear that its plans were subject to any response to the Cambridge study, but that moving to marginal cost pricing might have 'profound implications' for its fees and financial structure, and might ultimately not secure the intended policy objectives.

Companies House noted that most of the data in its register was owned by the respective author (ie the companies registered) and that very little was covered by Crown Copyright (such as the structure of the database). Companies House was already reviewing its terms and conditions as part of the implementation of the Companies Act 2006 for October 2009, and was committed to ensure compliance with best practice on re-use by re-considering its position on preventing daily updates being sold wholesale.

The Medicines and Healthcare Products Regulatory Agency responded saying that it was already committed and pro-active, though it held very little Crown Copyright information as most of its data belonged to pharmaceutical companies. It regarded raising awareness as the priority and included a few tangible commitments such as updating its website to publicise available data for re-use, pro-actively targeting potential re-users and contacting them to inform them of data available.

The Driving Standards Agency considered several recommendations, not only in relation to improving access to information, though the commitments given were quite general and their impact is difficult to verify. There is little evidence of tangible changes – apart from updates to the organisation's website to improve information about Crown copyright licensing issues and complaints procedures.

One of the trading funds noted a lack of clarity about the subject matter in that the request letter mentioned 'raw' information, which is distinct from unrefined information covered by CUPI recommendation 9.4, but then also referred to Crown Copyright Information.

- 5.37 In general, the action plans tended to emphasise existing activities and policies that purportedly supported making information held by the organisation available (such as complying with the recommendations made by OPSI in the IFTS verifications). The action plans do not indicate that important new initiatives were triggered by CUPI, though it is plausible that some initiatives were accelerated by CUPI and that some small improvements were brought about directly by the OFT's recommendations (eg improving the presentation of licensing information on PSIH websites).

- 5.38 Even in those cases where respondents indicated a willingness to review existing practices and look for possible improvements, the market impact may be limited. For example, the trading funds that seemed to be most prepared to review their practices and try to improve were those that tended already to follow good practice. This means that the scope for improvements was limited. For example, in their action plans, the UK Hydrographic Office and the Met Office committed to reviewing their public tasks, but evidence collated in the course of this study suggests that the public tasks of both organisations were already fairly well defined and not a point of contention.
- 5.39 Moreover, it is unclear whether there was any comprehensive follow-up by HMT and/or OPSI once these action plans were received. We are not aware of what assessment of these action plans was undertaken, and there appears to have been no check of whether the trading funds complied with any commitments made in their action plans. In the absence of any such follow-up, the request for action plans might have been seen by some trading funds as little more than a box-ticking exercise. We understand from OPSI that although the action plans were produced primarily for HMT, OPSI used them to inform its understanding of relevant developments within the trading funds. However, as the business models were undergoing change at the time, the plans were effectively superseded.
- 5.40 We also note that BERR's 5th six-monthly CUPi Progress Report of February 2010 states that the 'Making Public Data Public' initiative largely superseded what was set out in these action plans, as the intention now was to release more public data under an open licence that enables free re-use (including commercial re-use), and make data available in reusable, machine readable form through a single online access point (www.data.gov.uk).⁷³ As discussed below, open data continued to be a major focus of the new government coming to office in May 2010.

Changes in approach and thinking

- 5.41 The CUPi report, through highlighting substantial untapped benefits of PSI use and the role that PSIHs could play in unlocking this, may have raised awareness of the value of PSI and shaped the thinking of PSIHs. This might have been particularly relevant in the case of PSIHs relatively new to information trading. For example, Land Registry suggested that its direct response was to become more engaged with the needs and issues of (potential) users of its information (see box below). The UK Hydrographic Office told us that its involvement in the Cambridge study helped it better to understand the extent to which its information could be classified as

⁷³ BERR, 2010, '5th six monthly CUPi progress report'.

refined/unrefined and the implications of having IPRs owned by third parties incorporated in its products. As a result of the organisation's efforts to calculate the cost of obtaining information in support of the Cambridge study, its licence fee calculations became more transparent. The link between the CUPI study, the Cambridge study and the better understanding of its cost structure may not be obvious, though, as most (if not all) of this work had been conducted internally and is not reflected in published documents.

Land Registry

The Land Registry was relatively new to information trading at the time of the CUPI market study. It had held trading fund status since 1993, and in 2003 its Trading Fund Order was extended to include “the provision of services in wider markets [...] relating to the registration of titles to land and to the management and marketing of information relating to land and property”.⁷⁴

The Land Registry had been accredited to the IFTS in 2004, with OPSI noting that the organisation was “attempting to be pro-active in developing policy and practice at an early stage” and “actively committed to developing its information business in line with its Information Fair Trader commitment”.⁷⁵ A subsequent re-verification in January 2006 found that good progress was being made. OPSI recommended that the Land Registry should continue to develop its information trading policy and procedures, ensure terms were fair and appropriate (eg in relation to termination clauses and specific-use restrictions) and enhance transparency on its website.

At the time of the CUPI study, the Land Registry said it would use the study “to investigate a number of alternative business framework models which are used elsewhere in the public sector to develop and market new ‘commercial services’ as carried out in other trading funds”.⁷⁶ The Land Registry told us that the CUPI study subsequently led the organisation to re-think its data strategy, placing a greater focus on identifying what information could be made available and how. The Land Registry began to think of itself as a data provider – in addition to its core function of registering land ownership – and CUPI encouraged it to consider its potential role in stimulating wider economic benefits. Although its action plan in response to the CUPI recommendations included only measures to improve data access, rather than expanding the amount of information available for re-use, and referred to activities that had already been under consideration in any case (such as the enhancement of online access and services), there is evidence that these developments were potentially accelerated by the CUPI study.

⁷⁴ OPSI, 2007, ‘Note of meeting of licensing Forum (OPSI) of 30 March 2007’, <http://webarchive.nationalarchives.gov.uk/20090805132027/http://www.opsi.gov.uk/advice/lf-minutes-2007-03-30.pdf>

⁷⁵ Her Majesty's Stationery Office, 2004, Verification of commitment to information fair trading: Her Majesty's Land Registry', paragraph 7

⁷⁶ Land Registry, 2006, ‘Annual report and accounts 2005/06’, p 62, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/231599/1434.pdf

The Land Registry has improved its licensing of PSI by simplifying its licensing framework and removing restrictive conditions from licences. The Land Registry also has increased the amount of information available for re-use, introducing bulk downloads and creating standard terms and conditions for its value-added products. Land Registry recognises that the removal of restrictions on the re-use of some of its data resulting from linked OS IPR would help facilitate reuse in the market.

The increase in the amount of data made available for re-use and the move towards making some of the information that was previously only available for re-use via licence available free of charge under the OGL is predominantly the result of the Open Data movement. However, in the view of the Land Registry, the stimulus provided by the CUIPI study made it better prepared for the later Open Data release, suggesting that the CUIPI recommendations may have accelerated changes.

5.42 However, at the same time there was a perception among several PSIHs that the CUIPI study and its most substantive recommendations did not apply.

- Some PSIHs, such as the Met Office, already followed good practice in the key areas highlighted by CUIPI, and it is therefore understandable that the study did not prompt great changes for them.
- For other PSIHs, such as the Environment Agency, aspects of the CUIPI study were perceived as having little relevance, eg because the PSIH already sought to maximise availability of information, or because it did not rely on income from PSI trading and therefore had little incentive to restrict competition.

5.43 Even for such PSIHs, evidence suggests that the CUIPI study still sparked some debate and focused attention on the potential areas of concern, helping to keep those issues front of mind. This may have had some beneficial effects, even if there is no strong tangible evidence of change.

Met Office and Environment Agency

The Met Office had received a broadly positive assessment in the OFT CUIPI study. Its licence terms were recognised as being not overly restrictive. The Met Office was accounting separately for its value-added services and taking steps to ensure its downstream unit operated on the same terms as other customers. This suggests that the scope for further improvements triggered by the CUIPI study would be limited.

The Met Office has continued to license its PSI widely and freely. The number of complaints is low. The 2009 policy paper 'Putting the frontline first: smarter government' stated the Government's intention to release the Met Office's Public Weather Service data for free download. The Met Office has since become a major supplier of PSI as Open Data through the data.gov.uk portal and has gone beyond the requirement simply to make data available by releasing its DataPoint API that allows developers to create new and innovative applications using Met Office data. Thus, the Met Office appears to have made good use of changes in technology, and has responded to increases in demand that come from such changes and potentially other factors that increase the value of meteorological information.

The Environment Agency equally was cited as an example of good practice in relation to the licensing of PSI at the time of the CUPPI study. This may largely be the result of compliance with the requirements to make information available under the Environmental Information Regulations, which are somewhat more stringent than the requirements that apply to PSIHLs licensing non-environmental information. Therefore, any improvements made would be more likely to be incremental than radical.

Changes at OPSI

- 5.44 Many of the OFT's recommendations were either directly related to OPSI, or they had potential implications for OPSI. In this subsection, we focus on these recommendations and highlight how they were only partly implemented.
- 5.45 Some recommendations affecting OPSI were relatively straightforward and of minor importance, such that their impact in practice is limited:
- OPSI's published procedure for investigating complaints was amended in September 2007 to make clear that (a) OPSI could revoke a delegation of authority in full or in part for Crown bodies, or (b) recommend to the parent department that a PSIHL be divested of its refined information operation. It might be argued that explicitly drawing attention to these options could have had an impact insofar as PSIHLs would see them as 'credible threats'. However, this is unlikely in most cases. Option (a) would potentially have substantial resource implications for OPSI. Option (b) is arguably weakened by a lack of implementation of accounting separation and the unrefined/refined distinction. Indeed, both options might be difficult to implement in practice for political reasons;
 - OPSI held discussions and workshops with the UK audit bodies, with a view to sharing expertise and best practice (although this did not lead to any material changes in OPSI's modus operandi); and

- Government considered the case for unannounced spot information audits as part of the IFTS process, concluding that this measure could be applied if appropriate and in accordance with Hampton principles⁷⁷, but again there is no evidence that this has affected how OPSI operates.⁷⁸

Changes to IFTS

- 5.46 Of potentially greater significance was the impact of the CUPi study on the IFTS. In the wake of the CUPi study, OPSI appears to have targeted a handful of large PSIHs with a view to granting IFTS accreditation. It is however difficult to ascertain whether this moderate expansion, with Companies House and the Coal Authority in particular joining IFTS in 2009, is solely attributable to CUPi or would have happened otherwise.
- 5.47 In any case, the benefits associated with both organisations joining the IFTS appear to be limited:
- In spite of a number of recommendations under the **maximisation** principle made by OPSI, the Coal Authority will only allow full access to its mining database in 2015 as a result of a change in its business plan.
 - Companies House was already reviewing its terms and conditions as part of the implementation of the Companies Act 2006 by October 2009, as noted in its action plan. The organisation had committed to ensuring compliance with best practice on re-use by re-considering its position on preventing daily updates being sold wholesale, a commitment that appears to be linked to the CUPi study. Thus, Companies House was arguably already on course to securing good practice before joining IFTS and indeed it received a positive assessment when it was verified by OPSI.
- 5.48 Moreover, OPSI promoted IFTS Online – a self-assessment tool – as a cost-effective way of extending the reach of IFTS across the wider public sector. However, IFTS Online is rather limited in comparison to the full IFTS, which had been the focus of the OFT recommendation.
- 5.49 The ‘enhanced oversight and governance’ for OPSI mentioned in the Operational Efficiency Programme Final Report is represented by the change

⁷⁷ BERR, 2008, ‘Annex A, Progress Report: OFT Commercial Use of Public Information’, <http://webarchive.nationalarchives.gov.uk/20090416115353/http://www.opsi.gov.uk/advice/poi/cupi-progress>

⁷⁸ OPSI told us that spot audits were to be undertaken should specific issues arise, but that there has been no need for such audits to date, and that IFTS member would be subject to regular audits under full IFTS verifications.

in the IFTS principles in April 2009 and the introduction of a new 'performance management framework'.

5.50 The new IFTS strategy claimed to 'raise the bar' for standards in information trading.⁷⁹ The changes to IFTS principles can be summarised as follows:

- the new **maximisation** principle effectively replaced the previous Openness principle, with a change of emphasis that the default position would become for PSIHs to allow re-use of PSI and the onus would be on the PSIH to provide strong justifications for any exceptions to this;
- a new **simplicity** principle was introduced, in line with the related TFA principle that advocated simple licensing and with the relevant CUIPI recommendations; and
- a new **innovation** principle promoted a pro-active approach to encouraging innovative forms of re-use.

5.51 The new performance management framework sets out, for each principle, the standard required for a PSIH to achieve a particular score on a five-point scale. Therefore, future IFTS accreditations included a 'scorecard' where a PSIH's performance in each area could be seen at a glance.

5.52 Under the **fairness** principle, the framework states that best practice would entail a '[d]istinct commercial arm on the same terms as external customers, with formal accounting separation between downstream/upstream information',⁸⁰ but this is not required to achieve a satisfactory level of performance. As such, the amended IFTS recognises the role of accounting separation and equal access, but seemingly without giving it the same vital importance that the CUIPI study did.

5.53 Similarly, the performance management framework states that a good level of **transparency** is associated with upstream and downstream activities being clearly defined and divided. OPSI told us that the upstream/downstream separation is one component of transparency which, taken with the other components, would give a clear picture of performance against the principle. It is however not clear what role a clear definition and separation of upstream/downstream plays in practice. For example, OS was awarded a 'good' assessment under the **transparency** principle as part of its IFTS re-

⁷⁹ <http://tna.europarchive.org/20091005112852/http://www.opsi.gov.uk/ifts/index>

⁸⁰ OPSI, 'Information Fair Trader Scheme: Performance Management Framework', <http://tna.europarchive.org/20100304163225/http://www.opsi.gov.uk/ifts/ifts-performance-management-framework.pdf>

verification in 2011, despite the fact that by OPSI's own admission OS 'has opted not to split its activity into upstream and downstream components'.⁸¹

- 5.54 Finally, our case study of the Coal Authority suggests that the principle of **maximisation** may be difficult to enforce, not least because arguments about the scope of the public task under the Re-use Regulations may be put forward in a way that seems to override the IFTS principle. The obvious resolution of this conflict would seem to be that the maximisation principle could perhaps over-ride the restrictions on what counts as re-use under the regulations that stem from the definition of the public task, as suggested by OPSI in its most recent intervention in the on-going dispute between the Coal Authority and a potential (re-)user of its information.

The Coal Authority: maximisation vs public task

The Coal Authority was the first PSIH to join the revised IFTS in 2009. We have been told by the Coal Authority that this decision was driven largely by the objective of demonstrating its commitment to fair trading in relation to the information services it offered (in the main the CON29M mining reports that it provided in the context of property transactions in current or former coal mining areas) rather than maximising re-use.

Indeed, the Coal Authority has continuously fallen short of OPSI's recommendations linked to maximising re-use of its PSI. The Authority has made some bulk data extracts available for commercial re-use (and also releases some datasets on OGL terms in its interactive viewer), but retained the right to "refuse a licence in certain circumstances [including] [w]here the Authority considers the use of its data to be inappropriate, for example if ... it is for the production of CON29M coal mining reports or successor products..."⁸²

A long-running complaint involving a request for the bulk data provision of mining data centred on the definition of the Coal Authority's public task. The Coal Authority argued that the provision of CON29M reports fell within its public task and OPSI found that, as the complainant had the intention to use the information requested "to create a number of reports (primarily a Coal report) that have the necessary level of content and detail to equate that of a CON29M"⁸³ use of the Coal Authority's database for this purpose would "not be re-use". OPSI was "satisfied that Regulation 12(2)(b) (regarding unnecessary restriction of competition) does not apply to the use of information in the databases maintained by the PSB to compile CON29M reports and that **this head of the Complainant's complaint must therefore fail.**"⁸⁴

⁸¹ OPSI, 2011, 'Information Fair Trader Scheme Report, Ordnance Survey', p 12,

<http://www.nationalarchives.gov.uk/documents/information-management/ordnance-survey-ifts-report.pdf>

⁸² OPSI, 2011, 'Office of Public Sector Information Report on its Investigation of a Complaint, PinPoint Information Limited and the Coal Authority', p 15, <http://www.nationalarchives.gov.uk/documents/coal-authority-complaint-report.pdf>.

⁸³ Ibid p 11.

⁸⁴ Ibid p 11, emphasis added.

OPSI initially was satisfied that refusal to licence the underlying data would not conflict with the IFTS maximisation principle, though it considered that the Coal Authority could have done more to explain the reasons for not providing the information and publish a statement that the data would be available for re-use, which excluded the provision of CON29M reports. In a decision on a second complaint brought subsequently, however, OPSI argued that the Coal Authority's policy of not permitting re-use of the documents for the purposes of creating products that were similar to a CON29M, did not facilitate maximisation, and that 'in order to maximise re-use and allow fair competition, the [Public Sector Body] should allow the re-use of its information for any reasonable purpose, including supply of CON29M substitutes.'⁸⁵ OPSI also recommended that the PSB provides a forum for re-users to submit feedback on the public task, and that the public task statement is reviewed at least every 3 years.

5.55 In summary, while the IFTS changes reflect certain CUPPI recommendations, their impact on market outcomes depends on how they are applied in practice, and there are clear instances where the change in the IFTS regime has had rather limited impact. It is also the case that OPSI's guidance documents have not been modified to reflect many of the recommendations.

5.56 On the other hand, there is evidence from case studies that IFTS does contribute to driving improvement in some areas, particularly licensing simplicity, appropriateness and flexibility. While this would also have been the case in 2006, it is plausible that the introduction of the **simplicity** principle helped to focus on this area, which had been flagged by the OFT, with beneficial effects on the market.

Exception to marginal cost pricing

5.57 Following one of the recommendations from the POI Task Force report, OPSI published criteria for exceptions to marginal cost pricing in December 2009. As of January 2010, any PSIH holding Crown copyright material and wishing to deviate from marginal cost pricing would have to justify this and would be subject to verification from OPSI against these criteria.

5.58 Briefly, the criteria seek to test compliance with principles of maximisation of access, re-use and innovation, openness and accountability, and competitive neutrality. Exceptions are granted on the condition that the PSIH is willing to join the IFTS.

5.59 However, trading funds are exempt from this test. This is fully in line with the principles in Annex 6.2 of 'Managing Public Money', which state that

⁸⁵ OPSI, 2014, 'Office of Public Sector Information Report on its Investigation of a Complaint, PinPoint Information Limited and the Coal Authority', p 12, <http://www.nationalarchives.gov.uk/documents/information-management/coal-authority-complaint-report-2014.pdf>

information provide by trading funds should be charged at full cost (regardless of whether it is 'raw' or 'value-added' information), and seems to reflect an unwillingness by Government fully to implement recommendations that could have an implication for the profitability of trading funds or might require changes to their business model.

5.60 In June 2013, TNA published an independent report reviewing the first three years of the procedure. In summary, the report found that the procedure was operating as designed and the number of applications had been low, but that there were some areas of concern and changes were suggested to improve and streamline the procedure. Other specific findings were that:

- PSIHs 'have demonstrated a remarkable lack of commitment to drive their application forward and to ensure that if they are granted an exception that they are compliant with the conditions set down by the procedure'⁸⁶ (such as IFTS compliance);
- PSIHs also appeared to be experiencing 'increasing difficulty with respect to delivering and sustaining online transparency';⁸⁷ and
- The procedure can be considered as a 'pilot' for the revised PSI Regulations due to come into force in 2015 and the experience gained from it will be helpful.

OPSI powers and resourcing

5.61 The CUPi study had identified a lack of effective enforcement and had called for various changes to be made to increase the effectiveness of OPSI's oversight of PSIH behaviour covered by the Re-use Regulations and, in particular, a strengthened and extended IFTS. Similarly, the TFA envisaged that OPSI would monitor and enforce compliance with the principles established.

5.62 However, whilst OPSI's remit has been widened, it has not benefited from a step change in the resources it has available to it, as had been recommended in the CUPi study. Though OPSI's resources have increased⁸⁸, the role that OPSI is able to play, including through the IFTS, in addressing the concerns raised by the OFT is likely to be limited.

⁸⁶ Christopher Corbin, 2013, 'A Review of the TNA Administered Exception to marginal cost pricing procedure', p106

⁸⁷ Ibid, p106

⁸⁸ The OPSI team is currently resourced for three full time employees compared with two full-time employees at the time of the CUPi study.

Stakeholders on the role of OPSI

There was a widely held view expressed by stakeholders that OPSI as the PSI regulator is under-resourced. In this context, it has been highlighted by stakeholders that within the CUIP report, the OFT recommended that OPSI should be given greater resources in order to perform its role effectively, and that this has not been acted upon. This is reflected in its number of staff, which has remained around the same from the time of the CUIP study to this day.

Several stakeholders also highlighted that OPSI has a lack of enforcement power, with the ability only to make recommendations as opposed to issue binding decisions and that this (regulation without the threat of binding decisions/enforcement/ability to impose sanction) affects its ability to regulate the PSI market effectively.

- 5.63 An external review of OPSI's investigation of complaints (not including the IFTS complaints process) published in March 2011⁸⁹ (the Webb report) found that the process overall worked well, but also identified a number of shortcomings (including OPSI's limited ability to enforce its recommendations with the PSIHs⁹⁰). It recommended establishing a stronger formal reporting process, requiring an action plan and timetable for the implementation of OPSI recommendations, and establishing a complaints feedback process to allow monitoring of satisfaction levels. The current documentation of complaints procedures on the TNA website does not suggest that any substantial changes have taken place since the Webb report.⁹¹

Change at Ordnance Survey

- 5.64 This section summarises direct effects at OS. The key messages are that:

⁸⁹ Webb, P, 2011, 'A Review of the Office of Public Sector Information's procedures employed for the investigation of complaints arising under the Re-use of Public Sector Information Regulations 2005', APPSI report, <http://www.nationalarchives.gov.uk/documents/opsi-complaints-process-audit-report.pdf>

⁹⁰ Note that the Amending Directive to the PSI Directive requires that re-users be provided with a means of redress that includes the possibility of review by an impartial body, with the power to make binding decisions on the PSIH concerned. OPSI, the existing investigative body in the UK, currently has no such power. The TNA consultation on the transposition proposed various options to address this, the preferred one being to retain OPSI as the investigative body and allow for referral to a First-tier tribunal, such as the Information Rights jurisdiction, for a legally binding decision. It is argued that this option builds on the expertise gained by OPSI whilst providing legal certainty and being proportional and cost-effective. The consultation closed with 22 responses, most of which were from public bodies that supported TNA's proposals, though responses from third parties such as ODI and ODUG expressed concern that the proposals would still not provide PSI users with an effective option. At the time of writing, no final decision has been made regarding the implementation of the amending Directive.

⁹¹ We understand from OPSI that in response to the Webb report its complaint handling procedure has been updated and published, and that a user satisfaction questionnaire for complainants and respondents has been drawn up. Various changes were made to the TNA website to respond to the call for increasing awareness of the licensing and complaints process and providing clear links to OPSI. Consideration was also given to publishing a full digest of complaint volumes, typology and outcomes. However, given confidentiality considerations and the requirement to conduct internal analysis for the transposition of the Public Sector Information Directive, currently only complaint reports and all progress reports are being published.

- improvements were made after CUIP – particularly in terms of the licensing model, pricing and engagement with re-users; but
- some major CUIP recommendations were not implemented – particularly in relation to accounting separation.

The changes that were made therefore appear to have addressed some but not all of the OFT's concerns. More detail on the changes at OS is provided in Appendix B.

OS workshops

- 5.65 Jointly with the OFT and OPSI, OS held workshops in 2008 with a number of private sector users of geographic information. These aimed to explore further the licensing issues raised by the CUIP study, as well as the potential split between refined and unrefined information.
- 5.66 This points towards OS becoming more customer-facing as a direct result of the CUIP study. Documentation concerning the outcomes of the workshops, suggests that some positive changes have been made, but only in relation to selected cases and re-users, whilst more comprehensive potential changes remained the subject of on-going discussion.

New business strategy

- 5.67 The new business strategy for OS, published in April 2009,⁹² was the outcome of a lengthy process that involved the Cambridge study and the TFA. It was based on a Government decision that the user-pays model continued to be the most effective, but that changes were nevertheless needed in five key areas:
- promoting innovation, through enhanced offerings to developers, creation of an online community and reductions in minimum royalty charges;
 - increasing use of OS data, by expanding the role of partners in distributing OS products and reviewing the licensing framework, with a view to enhancing simplicity and transparency;
 - supporting sharing across the public sector, through Pan Government and One Scotland Agreements;
 - increasing efficiency through cost reductions; and

⁹² OS, 2009, 'Ordnance Survey Business Strategy', <http://webarchive.nationalarchives.gov.uk/20090908083925/http://strategy.ordnancesurvey.co.uk/>

- enhancing value by creating a new trading entity.
- 5.68 The key commitments linked to the CUPI recommendations are the review of licensing, including simplification, loosening of restrictions and reduction of some charges, and the increased engagement with users, both of which have the potential to remove barriers to commercial use of OS information. The OFT's reaction was that licensing simplification is welcome, but that there was a lack of clarity about what exactly would happen in practice, and when. The OFT was concerned about a clear timetable for implementation, and a significant risk of further delay.
- 5.69 Tangible effects depend of course on the implementation of the strategy. Here evidence indicates that the commitments did lead to material improvements in market outcomes, which are perhaps the benefits that are most clearly attributable to the CUPI study (though arguably with some substantial delay).
- 5.70 Specifically, the new licensing model for OS was rolled out from October 2010. The new model greatly reduced the number of specific-use contracts and benefited (potential) licensees in various ways:
- the new framework was simpler and also less restrictive, since the reduction in number of contracts amounts to a broader definition of the type of use permitted under each contract;
 - the contracts themselves were made shorter and less legalistic, reducing complexity for (potential) licensees;
 - the new contract relating specifically to re-selling of OS products allowed greater flexibility for partners and allowed them to re-sell a wider range of OS products; and
 - new guidance and licence terms on derived data attempted to clarify in which instances third-party data could be considered 'free to use', even if it contained elements that had been inferred using OS products.
- 5.71 In other areas, the strategy does not appear to have fully implemented the CUPI recommendations. Notably, the strategy had announced a commitment to review OS's public task through a public consultation in line with TFA principles. However, this commitment was not met. This could have been an important step towards establishing a consensus over which activities naturally sit within OS's remit, which could go some way towards resolving contentious issues that still exist today.
- 5.72 Similarly, the establishment of a relatively small new trading entity (OS Leisure) specialising in online B2C products is in our view not a sufficient

measure to create a comprehensive upstream/downstream split of the sort that was envisaged by the OFT and that had been the subject of on-going discussions between the OFT and OS after the CUIPI study was published. There was also no change with regard to an explicit cost allocation methodology. As such, the OFT's concerns related to these issues appear not to have been addressed by changes that have taken place since 2006. We consider this to be evidence of a disconnect between the TFA's key principles, which closely echo the CUIPI recommendations, and the approach ultimately taken by PSIHs such as OS.

- 5.73 In November 2009, it was announced that OS would start releasing a range of products for free, whilst only in August of that year OS had reiterated that the issue of 'free data' had been fully considered by the TFA and the Government had 'made its decision'⁹³ to maintain the user-pays model. This fundamental change within a period of less than four months suggests a somewhat disjointed Government policy, perhaps again reflecting tension between different Government objectives.
- 5.74 The decision to release information for free was implemented as 'OS OpenData' from April 2010. OS OpenData – including the provision of an API and various support activities undertaken by OS – may well be seen as a positive change, but there is little evidence to link it closely to the CUIPI study.

Conclusion

- 5.75 While some of the OFT's recommendations resulted in further actions and in some cases change, the OFT's most substantive recommendations have not been fully implemented. There have also been substantial delays, not least because of the protracted nature of the Government's approach and the involvement of various parties with potentially diverging interests. The need to complete further work that was considered to be necessary in order to establish the impact of the OFT's recommendations on the profitability of trading funds also caused delays. This appears likely to have delayed changes in response to CUIPI that might otherwise have happened earlier.
- 5.76 Thus, whilst the thrust of the OFT's recommendations – namely the need to put in place measures that ensure that PSIHs provide access to information for which they are the sole supplier to re-users, without attempts to distort competition in the downstream markets through restrictive licensing or distortive pricing - has generally been accepted, their implementation has been rather patchy. Many principles put forward by the OFT – such as the

⁹³ OS, 2009, 'Business Strategy: Update on Progress – August 2009', <http://webarchive.nationalarchives.gov.uk/20090908083925/http://strategy.ordnancesurvey.co.uk/progress/>

separation of contestable and non-contestable activities with PSIHs accounting separately for the different parts of the business – have been re-affirmed on a number of occasions (e.g. in the TFA and the revised IFTS), compliance with these principles in practice is rather limited.

- 5.77 To some extent this may be the result of a perceived difficulty with applying some of the OFT's recommendations in practice (eg because of the difficulty in developing a systematic approach for establishing which of a particular PSIH's activities or products can reasonably be classified as unrefined and the funding implications of adopting recommendations in relation to pricing and accounting separation). This is somewhat ironic given that the OFT had considered potential implementation issues when developing its recommendations, and had particularly aimed at identifying measures that would not require fundamental changes to the way in which PSIHs operated in practice. Although the OFT was engaged in some follow-up competition advocacy work after the study was published, it would seem that after a period of close involvement with on-going work in the short term, resources, priorities and third-party interests have shifted in a way that limited the OFT's ability to apply further pressure.

6. Qualitative assessment: indirect effects

- 6.1 In this chapter, we consider changes that occurred as a result of the developments and initiatives that took place from 2009 onwards, related mainly to Open Data. These do not directly link to the CUPI study, but they have substantial implications for the provision of PSI and to some extent they contribute to alleviating the OFT's concerns.
- 6.2 Below, we first outline the relevant developments and then show how these may be indirectly affected by the CUPI study. While the Open Data movement focuses on the release of information in order to increase transparency and accountability of the public sector it is also concerned with stimulating economic growth. The role of CUPI in raising awareness of the economic benefits associated with greater use of PSI might arguably have contributed to the role played by economic value arguments in the Open Data movement. Specifically, we find that the UK releases a relatively high volume of datasets that are likely to be particularly suitable for commercial re-use. This suggests that the economic value of PSI is an important factor in the UK's Open Data strategy.
- 6.3 Thus, although the changes that have occurred since 2009 are not directly related to CUPI, they nevertheless reflect many of the CUPI study's principles in relation to the economic benefits of making PSI available more widely.

An overview of the developments since 2009

- 6.4 A series of political initiatives took place from 2009 onwards to promote transparency and improve accountability of the public sector, including through the release of data by PSI holders as Open Data. This came in the wake of widespread controversy caused by the MP's expenses scandal, and also followed the US President's Memorandum on Transparency and Open Government.⁹⁴
- 6.5 Our analysis of these developments and our engagement with stakeholders indicates that this trend is generally seen as having occurred independently of the CUPI study. It is also clear that the trend was driven by multiple factors. However, where changes were motivated by potential economic benefits from opening up public sector data for re-use, the Open Data policies clearly echo some of the OFT's key messages, and the emphasis placed on stimulating economic growth through the release of PSI can be seen as an indirect effect of the CUPI study having clearly identified the economic importance of PSI.

⁹⁴ Memorandum for Heads of Departments and Agencies, 2009, http://www.whitehouse.gov/sites/default/files/omb/assets/memoranda_fy2009/m09-12.pdf

6.6 Notable milestones from 2009 onwards include:

- the 'Making Public Data Public' initiative, commencing with a speech by Gordon Brown of 10 June 2009, in which it was announced that Sir Tim Berners-Lee had been tasked to help to drive the opening up of access to Government data;
- the policy paper 'Putting the frontline first: smarter government' published in December 2009. The paper illustrated the multiple motivations that underpinned the agenda, mentioning public service improvement, informing and empowering citizens, enhancing accountability, as well as delivering economic benefits. The paper set out Public Data Principles, including the use of machine-readable formats and the aim to release more data for free. The latter goal was demonstrated by announced releases of free data from the NHS, OS, Met Office and public transport data. The paper also announced that data.gov.uk would go live in January 2010 and that local Government would be encouraged to release data;
- in May 2010, the new Government's policy of 'Improving the transparency and accountability of government and its services' started with a focus on releasing data on Government spending and other areas such as crime data, with further Open Data releases announced in July 2011. Again, it was clear that policy objectives were multifaceted – [g]reater transparency across government is at the heart of our shared commitment to enable the public to hold politicians and public bodies to account; to reduce the deficit and deliver better value for money in public spending; and to realise significant economic benefits by enabling businesses and non-profit organisations to build innovative applications and websites using public data⁹⁵;
- the 2011 Autumn Statement announced a series of further commitments affecting PSI provision and re-use.

6.7 Reflecting the momentum behind this movement is the development of new institutions and an appropriate infrastructure to support Open Data:

- The new UK Government Licensing Framework replaced the Click-Use Licence with the Open Government Licence, providing a simple set of terms for data held by any PSIH to be made available for re-use, without a need for re-users to make an application.

⁹⁵ Prime Minister's letter to Government departments of May 2010, available at <https://www.gov.uk/government/news/letter-to-government-departments-on-opening-up-data>

- The website data.gov.uk was set up as a major host of datasets being made available by PSIHS.
- The Public Data Group, formed of OS, Met Office, Land Registry and Companies House, was created aiming to create synergies and share best practice between four of the largest PSIHS.
- A Data Strategy Board⁹⁶ was set up to take responsibility for commissioning and purchasing of data from the Public Data Group, including for the purpose of providing data for free release. It would receive a budget of at least £7m for this purpose.
- The Open Data User Group (ODUG) was established to act as an independent advisory group to the Government on the release of PSI as Open Data (through the Data Strategy Board). ODUG provides evidence of market demand for Open Data and works to promote the release of selected datasets.
- The Open Data Institute was set up (with Government funding of up to £10m over five years) to help businesses exploit the opportunities created by the release of public data.
- The National Information Infrastructure launched from October 2013 lists the datasets that would have the greatest social and economic impact if they were made widely available.

6.8 This was accompanied by a number of notable Open Data releases. Specifically, the 2011 Autumn Statement included the following:

- Free releases of Met Office datasets were announced with immediate effect. These releases accounted for the majority of the estimated economic benefits of all releases announced.⁹⁷ The datasets include forecast data for an extensive range of variables, updated hourly, and observed data for the last 24 hours for approximately 150 UK sites.
- Future commitments for the Met Office included a competition to design a Met Office API solution, promoting innovative uses of data and the aim to release further datasets for free.

⁹⁶ Later absorbed into the Public Sector Transparency Board.

⁹⁷ According to National Audit Office, 2012, 'Implementing transparency', Report by the comptroller and auditor general, p 32, <http://www.nao.org.uk/wp-content/uploads/2012/04/10121833.pdf>

- Land Registry dataset releases were announced, including prices paid for residential property sales and data covering applications, transactions and searches.
- OS and Companies House would also pursue the free release of particular datasets.
- Train/bus timetables and real-time information would be released as Open Data by April 2012 to support innovative applications that could improve travel and logistic decisions.
- Highways and traffic data releases would take place throughout 2012, eg roadworks data held by local authorities (LAs).

6.9 The continued and increasing economic importance of PSI is emphasised in the Shakespeare Review (2013) and the accompanying market assessment prepared by Deloitte, as well as the amendment of the PSI Directive (to come into force in 2015).

Open Data and the CUPI study

6.10 Many of the developments outlined above were influenced by objectives such as increased transparency and improved public sector accountability that have little to do with the economic value of PSI that had been identified in the CUPI study. Data released in line with those objectives may have relatively little potential for commercial re-use, and the release will therefore have little impact on the areas of concern identified by the OFT.

6.11 On the other hand, many datasets have been released with the objective of delivering economic benefits. For example, the announcement on 17 November 2009 of the release of some OS products for free for commercial use is clearly not driven by a desire to increase transparency and improve Government accountability, but rather motivated by a desire to stimulate economic growth. In such cases, the CUPI study, along with the Cambridge study and others that have helped to raise awareness of the economic value of PSI, may be seen as a strong contributor.

6.12 Indeed, a review by the NAO⁹⁸ of the early implementation of various transparency initiatives announced in the 2011 Autumn Statement found that ‘the planned releases represent only a part of the economically valuable data sets held across the four trading funds’.⁹⁹ This finding was based on a comparison of the net benefits of the Autumn Statement data releases –

⁹⁸ Ibid.

⁹⁹ Ibid, p 32. <http://www.nao.org.uk/wp-content/uploads/2012/04/10121833.pdf>

estimated as £49m over twenty years – with the total potential gains from releasing more PSI as Open Data.¹⁰⁰ The CUPi study was one of the first pieces of work to highlight the untapped economic value of PSI.

- 6.13 The evidence and views expressed by stakeholders are not strong enough to support the view that a large proportion of resulting economic benefits may be attributable to CUPi, but it does appear that CUPi may well have accelerated the developments that followed.
- 6.14 Based on the extent of Open Data initiatives, it is uncontroversial to say that there has been a material impact on the OFT's main areas of concern.
- Most notably, a vast range of datasets have been released that were not previously available, increasing the supply of PSI for re-use.
 - In some cases information that was previously licensed on a chargeable basis and/or with licence restrictions on re-use has been released for free under the Open Government Licence. This will have contributed to addressing OFT concerns about the potential for unduly high pricing and restrictive licence terms.
 - Finally, the creation and involvement of institutions such as ODUG appears to have contributed to some improvements within the OFT's areas of concern, especially with regard to quality of service.
- 6.15 An indication of the indirect link between the CUPi study and Open Data with a focus on economically valuable PSI can be gleaned from high-level comparative analysis of Open Data in the UK and in other countries. This confirms that the Open Data movement has progressed at a particularly fast pace in the UK and includes significant releases of economically valuable PSI.
- 6.16 The UK's strong Open Data credentials have been recognised in various assessments. For example, Open Knowledge's Global Open Data Index, which is based on a comparison of national approaches to the publication of then key types of dataset, ranks the UK in first place.¹⁰¹ Similarly, the ePSIplatform ranks the UK as the leading country in the EU on its PSI Scoreboard,¹⁰² which aims to measure the status of Open Data and PSI re-use throughout the EU, not in terms of Government policies but in terms of the overall re-use situation, including the Open Data community's activities.

¹⁰⁰ The NAO cites a 2011 study by Rufus Pollock, 'Welfare gains from opening up public sector information in the UK'. This study, applies the results of the 'Cambridge study', estimates that moving to marginal cost pricing for all digital PSI would produce a welfare gain of between £1.6bn and £6bn. Ibid.

¹⁰¹ <http://index.okfn.org/>

¹⁰² <http://www.epsiplatform.eu/content/european-psi-scoreboard>

6.17 Comparing data.gov.uk to other European open data portals highlights that the UK's ecosystem of open data offerings is well developed. Significant progress has been made in developing the portal since launch. In January 2010 there were close to 3,000 datasets available; the figure had risen to around 9,000 by late 2012¹⁰³ and today, there are over 16,000 published datasets. Table 3 shows the number of datasets published on the UK's open data portal and on other national open data portals, at the time of writing.

Table 3: Number of available datasets on national Open Data portals

Country	Data portal	Published datasets
UK	http://data.gov.uk	16,020
France	https://www.data.gouv.fr	13,836
Germany	https://www.govdata.de	13,464
Italy	http://www.dati.gov.it	9,026
Spain	http://datos.gob.es	8,561
Netherlands	https://data.overheid.nl	2,677
Austria	http://data.gv.at	1,508
Iceland	http://www.statice.is	1,123
Portugal	http://www.dados.gov.pt/pt/inicio/inicio.aspx	612
Ireland	http://data.gov.ie	432
Lithuania	http://opendata.gov.lt	226
Slovakia	http://data.gov.sk	218
Belgium	http://data.belgium.be/datasets	115
Malta	https://www.gov.mt/en/Government/Open%20Data/Pages/Open-Data-%28Beta%29.aspx	102
Greece	http://data.gov.gr	75
Sweden	http://opnadata.se	54

Source: *Open data portals, DotEcon analysis*

6.18 For many of the above countries, it is possible to classify the majority of available datasets according to broadly defined categories.¹⁰⁴ Though it is not possible to precisely match all 'themes' of datasets offered on data.gov.uk to the categories of classification used on other portals, Table 4 presents an approximate comparison of the portfolios of datasets offered on data.gov.uk and on other national Open Data portals.

¹⁰³ Deloitte, 2012, 'Stimulating demand for open data in the UK', pp.5, <http://www2.deloitte.com/uk/en/pages/deloitte-analytics/articles/stimulating-demand-for-open-data-in-the-uk.html>

¹⁰⁴ It was not possible to do so with sufficient accuracy for Italy and the Netherlands.

Table 4: Datasets published, by category

Category	No. of datasets on data.gov.uk	%	Average distribution on other national portals
Culture	-	-	6%
Economy	456	3%	23%
Education	697	4%	7%
Environment and Geography	5,366	34%	16%
Government	3,596	23%	13%
Justice	372	2%	3%
Population and Work	3,307	21%	20%
Towns and Cities	1,378	9%	5%
Transport	463	3%	5%
Other	-	-	2%

Source: Open data portals, DotEcon analysis

- 6.19 The majority of the Government datasets on data.gov.uk consists of spending-related information. As such, these datasets reflect the UK's relatively high-profile policies aiming to deliver transparency and accountability, rather than economic benefits, and are unlikely to be associated with substantial value-creation from commercial re-use.
- 6.20 The largest category by far, however, is Environment and Geography, making up 34% of the total number of datasets on data.gov.uk. This category accounts for a substantial proportion (16%) of published datasets in other European countries too, which is likely at least in part to reflect the requirements imposed by the INSPIRE Directive. Though the number of datasets does not provide information about the volume, quality or value of the information provided, the fact that the UK releases relatively many such datasets is significant, since this category is likely to be particularly geared towards commercial re-use.¹⁰⁵

Conclusion

- 6.21 Whilst 'Making Public Data public' is independent of the CUPi study, the OFT's efforts to highlight the economic value of PSI that could be unlocked if such information were available more widely, of better quality and on less restrictive terms finds its echo in the emphasis on the role that open data plays for the stimulation of economic growth. Open data is not only about improving transparency and increasing accountability of the public sector, but is also about unlocking economic benefits. Therefore, the CUPi study through raising awareness of the (potential) economic value of PSI may be seen as

¹⁰⁵ See for example, Vickrey, G, 2011, 'Review of recent studies on PSI re-use and related market developments', Table 1, p 11, <http://ec.europa.eu/digital-agenda/en/news/review-recent-studies-psi-reuse-and-related-market-developments>. However, this finding should still be interpreted with some caution – for example, a widely held view is that the most valuable geographic datasets in the UK today are still being charged for, rather than released as Open Data, whereas in some other countries there may be less emphasis on the commercialisation of PSI. Without more detailed information about the nature and quality of the data made available, a robust comparison is not possible.

having had a positive impact on the growth of Open Data and may have helped accelerate developments.

- 6.22 The importance of economic benefits seems to be reflected in the relatively high volume of datasets published as open data in the UK that are likely to be particularly geared towards commercial re-use. This suggests that the value of PSI is an important factor in the UK's Open Data strategy. Thus, although the changes that have occurred since 2009 are not directly related to CUIPI, they nevertheless reflect many of the CUIPI study's principles in relation to the economic benefits of making PSI available more widely.

7. Residual problems

- 7.1 The analysis of direct effects has shown that a number of measures have been taken in response to the recommendations made by the OFT, and that there is some evidence to suggest that PSIHS have responded, particularly by simplifying licence conditions and exploiting their data assets more actively. The subsequent push for Open Data has resulted in positive indirect effects, through a substantial increase in the amount of PSI available, and a reduction in the price of such information. However, both our desk research and discussions with stakeholders (some of which have obvious vested interests) indicate that a number of the key problems identified by the OFT persist.
- 7.2 As we have noted above, despite many initiatives, the problems identified by the OFT have not been fully addressed. The concerns raised by the OFT in relation to the availability and pricing of information (particularly information that is valuable for commercial re-use) have been echoed in later, and indeed fairly recent, analyses. For example, the Shakespeare Review, completed in 2013, found that although substantial progress had been made scope remained for further enhancing competition in the downstream market, as ‘restrictive licensing, applied to key PSI, limits the opportunity for businesses, especially SMEs, to make effective use of PSI as an underpinning business resource’. It recommended that trading funds should work to raise awareness of data availability, consider offering greater support and co-operation to third parties, and improve quality of service, eg with greater clarity about what users can expect and when. Data should be released as early as possible, even if imperfect, while work should continue to improve data quality and maintain a ‘high quality core’. This very much echoes the concerns about PSI availability and pricing and service quality that were raised by the OFT.
- 7.3 The review also noted that charging and funding remain highly contentious topics. With regard to accounting, Deloitte indicated that costs are not typically apportioned by dataset and views differ on exactly which revenues are relevant for PSI. Moreover, difficulties in adequately defining data types are still an issue in the PSI market: ‘there remains an element of subjectivity as to what constitutes a dataset and what constitutes a ‘value-add’ service – with some data owners arguing that what is being charged for is not the PSI itself, rather its interpretation and analysis.’:
- 7.4 Undoubtedly, a fuller implementation of the CUPPI recommendations would have mitigated some of the residual problems, especially with regard to the potential for anti-competitive conduct where a PSIHS participates in markets for products and services that might be deemed refined, value-added or unrelated to the public task.

- 7.5 Additional concerns have emerged as a result of the Open Data agenda, which create potential problems in combination with the trading fund model.
- 7.6 The concerns that arise from the inherent tension between the Open Data approach and the trading fund model are to some extent exacerbated by the fact that the OFT's recommendations on drawing a distinction between contestable activities (embodied in the creation of refined information) and non-contestable activities (related to the creation of unrefined information) and for accounting separately for the two parts of a PSIH's business have not been implemented.
- 7.7 Residual problems also arise from the fact that there is insufficient clarity in relation to the definition of the public task, which effectively limits the effectiveness of the Re-use Regulations.

The trading fund model and Open Data

- 7.8 The trading fund model has been criticised as a major roadblock in relation to progress with the Open Data agenda. Specifically, an inherent tension remains between commercialisation objectives following from the Operational Efficiency Programme and the Wider Market Initiative on the one hand, and the idea of maximising the availability of PSI to create economic benefits on the other.
- 7.9 In a July 2012 report the House of Commons Committee on Public Accounts, looking at progress made in relation to the Transparency Agenda¹⁰⁶, noted that 'the Government has not got a clear evidence based policy on whether or not to charge for data'. This refers to the trading fund model used for some PSIHs, the evidence from studies (such as the Cambridge study) about the potential benefits from free releases of data currently held by trading funds, and the Government's 'convoluted proposal' to purchase data from trading funds via the Data Strategy Board and then release it for free. It recommends that the Cabinet Office and BIS should work to establish whether economic benefits from releasing more free data from trading funds would outweigh revenue losses.
- 7.10 The Shakespeare review found that 'some good progress had been made in opening up data for public sector sharing and re- use' and that the four trading funds in the Public Data Group 'already make increasing volumes of data available as Open Data and there continue to be moves in this direction'. However, the review was critical of the trading fund model, portraying it as

¹⁰⁶ House of Commons Committee of Public Accounts, 2012, 'Implementing the transparency agenda', Tenth Report of Session 2012-2013, <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmpubacc/102/102.pdf>

inconsistent with the momentum behind Open Data (free of charge). It recommended that trading funds should work towards offering all 'raw data components' under the Open Government Licence.

- 7.11 Similarly, a recent report by the Public Administration Select Committee (PASC)¹⁰⁷ welcomed the commitment to Open Data that has been witnessed from successive Governments, but found that the Government's concept of Open Data is poorly defined. Specifically, '[t]he Government needs to recognise that the public has the inherent 'right to data', but there is confusion about this concept. The Government should clarify its policy and bring forward the necessary legislation, without delay. There should be a presumption that restrictions on government data releases should be abolished.'¹⁰⁸ On the relationship between economic growth and Open Data, PASC reiterated the case for releasing core data for free, with charging for PSI as the exception rather than the rule, claiming that '[i]t is short-sighted in the extreme for Government to seek to maximise fee income from data while those fees penalise in particular small companies that can prove the most innovative'.¹⁰⁹ The decision to sell the Postcode Address File with the privatisation of Royal Mail was strongly criticised as a short-term gain that will impede economic growth, showing that 'important Departments such as the Treasury and BIS do not appreciate the value of open data'.¹¹⁰
- 7.12 The charging principles set out in CUP1 were fully consistent with the trading fund model and were aimed purely at preventing the exploitation of 'upstream' market power enjoyed by trading funds as the sole supplier of what the OFT termed 'unrefined' information without compromising the financial viability of PSIHs. However, if trading funds were required to release the most valuable 'core reference data' free of charge in order to maximise wider benefits, they could find themselves in a very difficult position. Trading funds are supposed to cover the cost of collecting and maintaining data through the income they generate, and having to offer data that is costly to collect and maintain for free means that the PSIH either needs to receive public funds as compensation for the resulting funding shortfall (a case in point being OS, which receives £20m per annum for its commitments under the Open Data agenda¹¹¹), or it must generate more income from other activities (including the provision of information not covered by the open data requirement). This problem is

¹⁰⁷ Public Administration Select Committee, 2014, 'Statistics and Open Data: Harvesting unused knowledge, empowering citizens and improving public services', Tenth Report of Session 2013-14, <http://www.publications.parliament.uk/pa/cm201314/cmselect/cmpublicadm/564/564.pdf>

¹⁰⁸ Ibid, p 3

¹⁰⁹ Ibid, paragraph 94

¹¹⁰ Ibid, paragraph 139

¹¹¹ The 'purchase' of Open Data through the (now disbanded) Data Strategy Board would seem to have been another way of compensating PSIHs for the provision of data that is then made available free of charge to users and re-users.

particularly acute for trading funds that generate the majority of their income from the provision of information.

7.13 Both of these solutions may give rise to potential competition concerns:

- Where the trading fund receives compensation from the public purse for its Open Data activities, concerns about unfair cross-subsidisation may arise. Complaints about OS allegedly engaging in unfair competition with commercial re-users, funded by money received for its Open Data commitments (and a substantial income from the uncontested PSMA), exemplify such concerns.¹¹²
- Where the trading fund needs to increase the profitability of other activities, this may require some above-cost pricing, which in turn may create strong incentives for restricting competition in the provision of these services. This could exacerbate the problems that the OFT had identified in relation to PSIHs that also exploit their information through the provision of value-added services.

7.14 This would suggest that the OFT's original competition concerns related to the provision of PSI have not disappeared with the advent of Open Data; on the contrary, the increasing pressure on PSIHs, and in particular trading funds, to provide data free of charge makes these concerns more relevant.

7.15 An appropriate separation of contestable and non-contestable activities (such as a clear delineation of these categories in combination with separate accounting), along with a strong, well resourced regulator would seem to be a sensible response to these concerns. These measures provide a basis for improving transparency and allowing effective monitoring of the behavior of PSIHs. Similar models are employed in other regulated sectors in response to similar concerns (where they can be equally difficult to implement).

7.16 Yet, few PSIHs draw a clear distinction between their upstream activities (which relate to the creation of unrefined information for which they are the sole provider) and any value-added services that they provide. This is largely due to:

- the recommendations made by the OFT in relation to distinguishing between unrefined and refined information (or between upstream and

¹¹² For example, a recent state aid complaint to the European Commission has been made in relation to OS's receipt of income from the Public Sector Mapping Agreement and as compensation for the provision of OS OpenData (see eg <http://www.independent.co.uk/travel/news-and-advice/has-the-ordnance-survey-lost-its-moral-compass-9891770.html>)

downstream, or uncontested and contested activities) not having been adopted; and

- recommendations in relation to accounting separation and pricing principles having largely been re-cast as guidelines without sufficient monitoring of compliance or enforcement.

The public task

7.17 Further concerns relate to many PSIHs lacking a clear and definition of their public task. Given the crucial role that the notion of the public task plays in the application of the Re-use Regulations, these shortcomings are a major issue for potential re-users. The lack of clarity about the public task of the Coal Authority has been cited as a clear example of how a PSIH may limit the availability of its data through extending the scope of its public task to cover activities that potential re-users might contest. OPSI's own assessment of the Coal Authority's public task, which has changed over the years, has added further confusion and discontent.

7.18 It has been pointed out to us by stakeholders that even under the revised Re-use Regulations – due to come into effect in 2015 – the obligation to make PSI available for re-use could be circumvented by simply extending the scope of the public task to encompass whatever activity those seeking access to the data might wish to undertake, so that said activity no longer constitutes 're-use'. Similar concerns about an increasing scope of the public task have also been raised by stakeholders for example in relation to OS allegedly seeking to expand into areas that were traditionally served by its licensing partners, or extended statutory responsibilities of Land Registry that would encompass new activities (though we note Land Registry's view that the intention of wider powers is to facilitate the conveyancing process or provide information services and infrastructure on which others can build or innovate).

TNA's public task principles

The need for further guidance on the concept of 'public task' had been raised several times, including by APPSI in its 2007 review of the Intelligent Addressing complaint.¹¹³

¹¹³ <http://tna.europarchive.org/20070108190023/http://www.opsi.gov.uk/about/index.htm>. APPSI recommended that OPSI's Best Practice Guide should be reviewed and amended to clarify the concept of 'public task', following appropriate consultation with relevant Government departments, and each trading fund should then produce and publish a statement of scope of its public task consistent with such an amended Best Practice Guide.

In 2012, TNA published the 'Public task principles' - a document outlining a number of reasons why the publication of a public task is important, which include its relevance in the context of the Re-use Regulations. The principles themselves are that public task statements should clarify the PSIH's functions in relation to PSI, primarily to help potential re-users understand whether information is covered by the Re-use Regulations and is potentially re-usable. The scope should reflect the PSIH's core role and functions, which may be defined in statute or 'established through custom and practice.'¹¹⁴

Re-users should be able to challenge the statement through the PSIH's internal complaints procedure, and subsequently through OPSI if the complaint relates to the Re-use Regulations or to IFTS. Statements should be regularly reviewed and amendments should not be made without being subject to review and challenge from re-users.

TNA has also published a more detailed 'Guide to drawing up a statement of public task', which deals with more practical matters. It includes a list of public task criteria, developed from the Best Practice Guide. The document suggests that information produced as part of delivering the public task is likely to have one or more of the following characteristics:

- 'it is essential to the public service for which the public sector body is responsible
- it explains the policy of the public sector body
- it sets out how the law must be complied with
- citizens consider the information to be key to their relationship with the public sector or with this body
- there is a statutory requirement to produce or issue the information
- it is established custom and practice that the public sector body produces or issues the information
- it enjoys authoritative status by virtue of being issued by the public sector
- the public body is the only source for the information
- its creation and maintenance is funded through taxation rather than revenues or private investment'¹¹⁵

¹¹⁴ The National Archives, 2012, 'Public task principles, Principles defining public task for public sector information under the PSI Regulations', p.4, <http://www.nationalarchives.gov.uk/documents/information-management/public-task-principles.pdf>

¹¹⁵ The National Archives, 2011, 'Guide to drawing up a statement of public task, Information for public sector bodies on producing a statement of public task under the Re-use of Public Sector Information Regulations 2005', p10, <http://www.nationalarchives.gov.uk/documents/information-management/guide-to-drawing-up-a-statement-of-public-task.pdf>

We note that this is a broad set of characteristics and the relatively weak phrasing of the criterion ('likely to have one or more') may allow significant flexibility.

- 7.19 We note that many of the concerns about the scope of the public task and the extent to which it affects competition would have been addressed through the OFT's package of recommendations for ensuring effective regulation of PSIHs. Drawing a distinction between contestable and non-contestable activities (as suggested by the 'refined' and 'unrefined' definitions), establishing clear pricing principles supported by accounting separation, enshrining these principles in an updated IFTS, broadening the reach of this scheme as the primary mechanism for monitoring and enforcement of PSIHs and bolstering OPSI as a competition watchdog would have created an effective framework for promoting the supply of PSI whilst protecting competition in the provision of value-added services and safeguarding the financial viability of the respective PSIHs.
- 7.20 Arguably, this would have bypassed the Re-use Regulations in the sense that obligations under the enhanced IFTS could have applied to the supply of information that was not covered by the regulations. The fact that the package was not fully implemented, however, now leaves more weight on the appropriate definition of the public task.

Concerns about OPSI as an effective regulator

- 7.21 Even if the appropriate rules in relation to accounting separation, pricing and definition of the PSIHs respective public task were in place, it is unclear whether OPSI in its present form would be capable of adequately monitoring PSIH behaviour and enforcing compliance. A number of concerns were raised in this regard:
- (a) First, stakeholders were concerned that OPSI is under-resourced when compared with other sector regulators. It was far from clear whether the organisation could cope with increased monitoring and enforcement obligations. In this context, it was also mentioned that OPSI's integration with TNA has resulted in a loss of visibility (in contrast to the Cabinet Office, which leads on high-profile Open Data initiatives), which suggested reduced rather than enhanced attention to ensuring effective PSI provision. Also, as far as we are aware, OPSI has not utilised other resources that are available to it when assessing the licensing of PSIHs, eg specialist advice from UK audit offices.

(b) Second, there were concerns that OPSI is lacking the instruments that would be needed to be an effective enforcer of the Re-use Regulations. OPSI's recommendations are not directly enforceable, and the Re-use Regulations do not create any legal obligations on PSIHs. Although OPSI could withdraw the delegated authority to license Crown copyright on a case-by-case basis, this has not happened and the threat was seen to be weak, not least because OPSI would lack the resource to engage in the relevant licensing activities itself.

7.22 The revised Re-use Regulations may address some of these concerns (in particular in relation to the lack of enforceability), though many stakeholders on the user side remain concerned about the burden and cost they would have to incur in order to enforce an obligation on PSIHs to allow re-use.

Remaining barriers to re-use

7.23 Last but not least, we were told that while central Government departments such as the Cabinet Office have embraced a culture of promoting transparency and access to PSI, there is evidence of various types of barriers still obstructing re-use of PSI in other cases:

- At local Government level, the degree of commitment to engaging with (potential) re-users and facilitating re-use varies, but it is generally lower than at central Government level. This may partly be due to a lack of resources, but may also be the result of an inherent resistance of local Government to increased scrutiny and opening up of data. In general, PSIHs may have incentives not to release PSI when this could reveal the poor quality of the PSI, even when releasing the PSI in any usable state would still be beneficial.
- In selected cases, excessive or unfounded concerns about data protection and security can be another barrier. Such concerns are potentially much greater in relation to the release of Open Data as the PSIH is no longer able to impose conditions on re-users, and there is often less information that would allow uses and users to be traced (eg in the case where PSI is used by someone to engage in fraudulent activities, it may not be possible to trace the user to the same extent as would be the case if specific licence agreements were in place).
- Finally, the outsourcing of information-related activities by public bodies to third parties means that in some cases public bodies lack control and flexibility over the provision of PSI. This can affect the availability of PSI, or the formats and processes by which it is made available, where the

PSIH may be restricted by technical feasibility or may face costs in relation to particular options for PSI provision.

Lack of commitment, legacy IT issues and data protection concerns

ELGIN

Roadworks Information Limited, trading as ELGIN, is a company that is aggregating roadworks information collected from LAs and other bodies (such as utilities) in order to provide a comprehensive view of roadworks, road closures and diversions, traffic incidents and other disruptions affecting the UK road network.

At the time of the CUPPI study, ELGIN's data covered less than half of LAs in England and Wales, with complete coverage only of certain geographic areas. LAs could discharge their obligation under the Traffic Management Act to make available information on roadworks by using ELGIN's data portal. Prior to 2011, LAs had to subscribe to ELGIN's service, however, following a change in ownership in 2011, ELGIN moved to a 'freemium' business model. This model still provided incentives for LAs to pay and receive additional benefits,¹¹⁶ but also allowed LAs to display information about their current roadworks on the portal for free. Elgin has also more recently hired former traffic managers from different parts of England and Wales, helping it to informally connect with new authorities and increase participation in the service. It has also re-launched its service using an improved Google Maps platform.

Today, ELGIN aggregates information from the vast majority of Local Highway Authorities in England and Wales and a number of other organisations¹¹⁷ to produce the largest single source of roadworks information in the UK. ELGIN's software checks the databases of subscribing LAs at regular intervals and extracts any new information. This is combined with real-time information on incidents/accidents from various other sources.

ELGIN told us that even though Open Data policy has been prominently articulated by central Government, the progress made by LAs in facilitating re-use has been patchy. Securing co-operation and aggregating data is still difficult and despite Government claims to be working with LAs to complete its Open Data objectives, ELGIN believes that in practice there is a strong "localism" factor at play that mitigates against interventionism.

¹¹⁶ In particular, paying subscribers can have future roadworks displayed as well as current ones, which is especially useful information for utilities and might further improve the co-ordination of roadworks.

¹¹⁷ At the time of writing the portal has secured the participation (or commitment to participate) of all but six LAs, and includes information from the Highways Agency, Transport for London, Transport Scotland, Traffic Wales, Network Rail, National Grid Gas, Wales & West Utilities, Northern Power Grid and Google.

Also, whilst some LAs have made progress and technological developments have helped to some extent, there are still technical barriers (eg IT systems and contracts lacking flexibility) that limit re-use, combined with a low-priority view of PSI/Open Data objectives at local level, and a reluctance to expose information to public scrutiny which might lead to a conclusion that the information provided is of low quality. This is particularly relevant with regard to valuable types of information that do not currently need to be made available by statute (eg information about road closures and diversions). This information is not normally provided in re-usable form, and in ELGIN's view is a clear example of where valuable PSI is not being made available for re-use, which was identified as a key source of detriment in in the CUPPI study.

DVLA

The Driver and Vehicles Licensing Agency (DVLA) has told us that it is limited by its legacy IT system in terms of the formatting and usability of data. For example, the vehicle database uses 'flat' records rather than a relational database, which means that the only option of making data available is through periodic full scans. This explains both the cost and the fact that the DVLA is not able to provide 'pay-per-click' access to data. The DVLA is striving to improve its technical capabilities to the benefit of its users, as illustrated by the new platform for driver data that allows real-time interrogation.

The DVLA also told us that concerns about data protection and privacy inevitably limit what data can be released. For example, the DVLA noted that the ICO had concluded recently that the DVLA's online vehicle check service included personal information, because vehicle tax information could reveal information about an individual's circumstances (eg whether the registered keeper was eligible for disability benefits). The DVLA changed its website in response to this. More generally, the DVLA expressed the view that concerns about mis-use of data need to be taken into consideration. For example, in the context of ODUG's call for bulk data to be released as Open Data, the DVLA noted that releasing information such as the VIN could facilitate criminal activity such as car cloning. Whilst ODUG noted that this information would also be available in many cases from looking directly at the vehicle, the DVLA stressed that this would be very different in terms of facilitating car cloning from having such information available as part of a bulk data download.

- 7.24 Where these types of barriers exist, third parties may still be able to access information in some cases though Freedom of Information (FOI) requests. However, this can be a costly, time-consuming and inefficient process for small businesses, while it may also fail to meet commercial needs (eg when frequently-updated information is required).

8. Quantification of benefits

- 8.1 Aside from the recommendations made by the OFT, an important element of the CUPI study was the estimation of the economic value of PSI. The study included a quantification of the current value of PSI to the economy at that time, but also of the potential additional value that could be delivered by removing the sources of detriment that the OFT had identified. Both figures were widely quoted after the study was published.
- 8.2 The CUPI study estimated the value of PSI in the UK in 2005 to be around £590m. This estimate was substantially lower than some alternative estimates that had been produced before the CUPI study, and estimates published thereafter (a comparison of different estimates of the value of PSI is provided in Appendix D). However, the CUPI study was careful to emphasise that a relatively conservative, bottom-up approach had deliberately been adopted in order to avoid potential over-estimation. It was acknowledged that the true economic value might be considerably greater, particularly in relation to any benefits from innovation.
- 8.3 The study also estimated the economic detriment that resulted from problems in the market from PSI. This was a distinctive contribution of the study to the broader debate about PSI – the estimation of economic detriment can be seen as a measure of the potential additional economic value of PSI and no major study appears to have attempted to measure this prior to 2006. The estimated detriment was in the region of £520m, based on the consideration of three specific causes of detriment: inadequate availability of PSI (£360m), distortion of downstream competition (£140m) and unduly high prices (£20m). The specific finding that substantial economic benefits could be delivered by improving the availability of PSI could be seen to anticipate subsequent arguments made for Open Data as a stimulus for economic growth and innovation.
- 8.4 The OFT's interpretation of the findings was that the value of PSI to the economy could be approximately doubled to around £1bn per year by increasing competition¹¹⁸, though it did not claim that the recommendations it put forward should necessarily be expected fully to address the problems and deliver the aforementioned increase.

¹¹⁸ OFT, 2008, 'OFT welcomes government review of public sector information' Press Release, <http://webarchive.nationalarchives.gov.uk/20090609003228/http://www.of.gov.uk/news/press/2008/78-08>

Change in the economic value of PSI

- 8.5 As noted in Chapter 3, our approach to quantification of the impact of the CUIPI study is based on comparing its snapshot of the economic value of the PSI sector against a comparable snapshot estimate of economic value after a sufficiently long period of time has passed to allow for the effects of the study to materialise.
- 8.6 In its CUIPI study, the OFT provided an estimate of the total economic value of PSI in the UK (£590m), which consisted of consumer surplus from paid-for PSI (£500m), consumer surplus from free PSI (£20m) and producer surplus (£70m). As mentioned above, the OFT also provided an estimate of the detriment associated with the various concerns that it had identified (£520m), which gave an indication of the potential additional value of PSI. These estimates were based on data collected through an extensive survey of PSI users undertaken by the OFT at the time, together with data available from OPSI from the academic literature. Acknowledging that in spite of the considerable amount of information available from the survey, a number of assumptions were needed to establish these estimates, they were provided by the OFT as an indication of the order of magnitude of the actual and potential value of PSI.
- 8.7 The estimates produced as part of the CUIPI study relied heavily on data collected specifically for that study. Due to timing and resource constraints, it has not been possible to repeat this data collection exercise in order to produce a directly comparable evidence base for establishing the impact of changes that have taken place since CUIPI. More generally, estimating the value of the PSI sector is impeded by lack of data on current and potential PSI use. The problem of data availability had been identified in the original CUIPI study and was echoed in subsequent work undertaken by Deloitte in the context of the Shakespeare review. Specifically, Deloitte noted that '[i]n the absence of any extensive primary research exercise (including, but not limited to, consumer surveys, data audits and experiments) there remain significant data gaps.'¹¹⁹
- 8.8 Deloitte also noted that 'there is no consistent methodology used in previous research to quantify the value of public sector information which has led to a large variance between estimates (ranging from £590 million to £16 billion - a factor of almost 30)¹²⁰, echoing comments that were made in the CUIPI study. Appendix C provides a brief summary of studies that aimed to quantify the value of the PSI sector, showing very clearly the wide range of estimates that

¹¹⁹ Deloitte, 2013, 'Market Assessment of Public Sector Information', 'Appendix 5: Empirical Methodology', published by BIS, p 181.

¹²⁰ Ibid. p 183.

have been produced, including some values that are even greater than those quoted by Deloitte. The large differences between estimates often reflect the difference between bottom-up methodologies – such as the one used as part of the CUPI study, based on the estimation of consumer and producer surplus – and top-down methodologies, where the value of industries that use PSI is estimated and a portion of that value is attributed to PSI, though there may be a risk of over-estimation because of double-counting and failing to consider any substitutes to PSI. The different approaches adopted make direct comparisons across different studies difficult.

- 8.9 Nevertheless, the Deloitte study is useful in that it employs a methodology broadly similar to the approach used by the CUPI study. Both use a bottom-up approach aggregating consumer and producer surplus estimated for a sample of PSIHs and then scale up the resulting value to cover the entire PSI sector using actual data on PSI revenues earned, in combination with assumptions about demand elasticities. Given that the Deloitte study looked at the PSI sector in 2011/12, it provides a reasonable comparator for identifying changes over the five years following the CUPI study. Even though Deloitte warns that its ‘figures are not comparable with other estimates of the value of public sector information (such as the previous DotEcon estimates) due to differences in the scope of analysis and methodology used’¹²¹, we attempt to correct for some of these differences in order to derive an estimate of the increase in economic value of PSI, a portion of which may then be attributed to CUPI.
- 8.10 The table below shows the differences and similarities between the OFT CUPI study and the Deloitte study in broad terms.

¹²¹ Ibid, p 110.

Table 5: Comparison of OFT CUIP and Deloitte study approach

	OFT CUIP study	Deloitte study
Sample	PSIHs covered by the OFT survey, divided into three strata and within each stratum according to the type of information provided; results scaled up to reflect the full PSIH sector based on OFT estimates of the revenues associated with each stratum. The sample sizes in strata 1, 2 and 3 were 17, 16 and 336 respectively, from a population of 18, 48, 130 PSIHs respectively.	Sample of major PSIHs (Land Registry, Registers of Scotland, Companies House, OS, Hydrographic Office, Environment Agency, Met Office, DVLA and Office for National Statistics), with results scaled up to reflect the full PSIH sector based on assumptions about the revenue accounted for by the PSIHs in the sample ¹²²
Approach to estimating consumer surplus associated with paid-for PSI	Assumption of linear demand curves, which allows consumer surplus to be calculated from revenues in combination with assumptions about elasticities that differ across PSIHs according to the type of information provided	
Approach to estimating consumer surplus associated with free PSI	Based on an imputed choke price for free PSI that is derived from revenues for value-added products that bring together free PSI, and information about the relative usage of free and value-added PSI, assuming linear demand and price elasticities for value-added products	Based on a 'proxy average' price from trading funds annual reports converted into willingness-to-pay estimates for free information, combined with data on downloads from major data portals and assumption about the proportion that is re-used; averaged over two different types of demand curve, linear demand and demand based on a Cobb-Douglas utility function including demand
Approach to estimating producer surplus	Based on revenue of PSIHs and difference between ROCE and target ROCE	

Consumer surplus associated with paid-for PSI

Sample PSIHs and revenue assumptions

8.11 In terms of the sample used, there is substantive overlap between the Deloitte and the CUIP study. Both studies covered the major PSIHs in terms of revenue. Whilst the CUIP study relied on a larger sample of PSIHs (covering 164 PSIHs in total), the CUIP sample did not include the Office of National Statistics (ONS), which is of particular relevance in relation to the estimates of the consumer surplus associated with the provision of free information.

¹²² As Deloitte notes, 'these are not the only suppliers of pay-for public sector information in the UK. However, as noted by Newbery et al (2008), it is estimated that the trading funds listed above comprise around 70 per cent of the estimated total income from UK PSIHs, and this captures a sufficiently large dataset population (and the subsequent calculations 'gross-up' the figure to capture the full value)' (Ibid, p 188). We note that the reference to 'Trading Funds listed above' is somewhat ambiguous, as the Cambridge study referred to a subset of organisations (namely Ordnance Survey, Met Office, UK Hydrographic Office, Land Registry, DVLA and Companies House) accounting for over 70% of PSIH revenues.

Table 6: PSI-related revenues in the Deloitte and CUPI studies (£m)

PSIH	Deloitte study (2011-12)	CUPI study (2005-06)
HM Land Registry	72	29.4
Registers of Scotland	12	6.9
Companies House	15	14.2
Ordnance Survey	142	100
UK Hydrographic Office	13	57.2
Environment Agency	0.8	3.0
Met Office	121	90.4
DVLA	1.4	1.9
Office of National Statistics	29	n/a

8.12 Table 6 above reports the PSI-related revenues used in the Deloitte study for the calculation of consumer surplus associated with paid-for PSIH, together with the revenue figures reported in the CUPI study for the same PSIHs. The general approach used by Deloitte for estimating the consumer surplus from paid-for PSI is the same as used in the CUPI study. Even though the studies use different samples, we consider that the revenues reported – and the values derived from these revenues – should be broadly comparable, given that the largest PSIHs who account for the majority of PSI revenue are included in both samples. In the CUPI study, the revenues of the PSIHs in Table 6 above accounted for around three quarters of the total PSIH revenues.

8.13 The CUPI and Deloitte numbers are broadly consistent, with moderate increases of PSI-related revenues for most PSIHs and small reductions for others. The only two cases where there appear to have been major shifts are the Land Registry, where PSI-related revenue seem to have more than doubled (in nominal terms), and the UK Hydrographic Office, where PSI-related revenue appear to have shrunk substantially.

- (a) In relation to the Land Registry, the Deloitte value appears to have been derived on a similar basis as used in the CUPI study, and therefore no adjustment is made.
- (b) By contrast, the figure for the UK Hydrographic Office appears to be erroneous. Deloitte reported that the UK Hydrographic Office’s total revenue was £19m and that £13m was PSI-related. However, annual accounts show that total revenue stood at £135m; the value of £19m may have been taken from the reported total ‘comprehensive income’, which is a measure of *net* income.¹²³ Using the ratio between PSI-related revenue

¹²³ See United Kingdom Hydrographic Office, 2012, ‘Annual Report and Accounts 2011/12’, p 36 and 52, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/247037/0221.pdf

and total revenue reported in the Deloitte study (13:19) would suggest PSI-related revenue of £92m¹²⁴, and we make this correction in our calculations below.

Assumption of linear demand

- 8.14 Under the assumption of a linear demand curve and an unchanged elasticity, the change in consumer surplus from paid-for PSI is driven entirely by the change in revenues. No specific assumptions are required about the specific changes in prices and quantities that might have led to this change in revenues. This is not true for alternative assumptions about the shape of the demand curve, where the specific changes in prices and quantities matter, and increasing revenues may not even be associated with an increase in consumer surplus.¹²⁵
- 8.15 However, if revenue increases do not involve substantive changes in quantity, assumptions about the shape of the demand curve are perhaps less important. Increases in revenue with largely unchanged volumes of licensing imply an outward shift of the demand curve, and the relative change in consumer surplus should be broadly comparable for different shapes of demand curves (although the absolute changes depend on the specific shape of the demand curves and thus are not).
- 8.16 Information collected through our case studies suggests that the amount of paid-for information licensed by PSIHs is unlikely to have increased substantially. While some PSIHs have released new datasets and products that are licensed for a charge, other data that previously had been licensed for a charge has been made available for free (eg Land Registry Price Paid data). In some cases the PSIH has been compensated for the associated reduction in revenues (eg OS, which has received £20m per annum for providing OS OpenData). In many cases, there has been an increase in quality (eg in the case of the Met Office, as a result of an increase in the resolution of the numerical weather prediction model). The assumption of linear demand therefore should continue to provide a conservative estimate of absolute changes in consumer surplus (and a reasonable indication of relative changes).

¹²⁴ For reference, using the same between total revenue earned in 2005/06 (£76m) and PSI related revenue as reported in the CUPPI study would suggest PSI-related revenue in 2011/12 of £101m.

¹²⁵ It also matters whether these changes occur along a given demand curve or involve a shift of demand. For example, revenue increasing along a given constant elasticity demand curve imply falling quantities and increasing prices and a loss of consumer surplus if demand is inelastic, and increasing quantities, falling prices and consumer surplus gains if demand is elastic.

Elasticity assumptions

- 8.17 Both studies used the same set of elasticities for the base case. The only difference is that Deloitte ascribed a medium elasticity value (0.8) to demand for Met Office data whereas the CUPi study used a high elasticity value (1.5). Given that much of the raw data provided by the Met Office would also be available from other meteorological services across the world, we believe that the assumption of a high price elasticity is perhaps more appropriate, and we make this correction in the calculations below.
- 8.18 At the same time, the increased amount of Open Data that is now available could of course have changed the price elasticity of the demand for paid-for PSI from certain PSIHs. However, there are no strong a priori arguments suggesting a particular magnitude (or even direction) of change. As some PSI users have switched to the free alternative, those users of paid-for PSI left behind may be less-price sensitive than the previous marginal users. Equally, some of the remaining users may not have switched to free data, but might do so if prices of paid-for information went up. Last but not least, for some users free and paid-for PSI may be complementary. In the absence of any clear indication of the direction and size of the potential change in the demand elasticity, which would appear to require extensive primary research, we use unchanged elasticity values with the exception of the modification of the price elasticity of demand for the Met Office, as discussed above.
- 8.19 Therefore, based on the revenues reported in the Deloitte study (adjusted in the case of the UK Hydrographic Office), and the elasticities used by Deloitte (adjusted in the case of the Met Office), we obtain the following implied consumer surplus values.

Table 7: Consumer surplus from paid-for PSI in 2011-12

PSIH	Revenue (£m)	Elasticity	Implied consumer surplus (£m) ¹²⁶
HM Land Registry	72.0	0.3	120.0
Registers of Scotland	12.0	0.3	20.0
Companies House	15.0	0.3	25.0
Ordnance Survey	142.0	0.8	88.8
UK Hydrographic Office	92.0*	0.3	153.3
Environment Agency	0.8	0.8	0.5
Met Office	121.0	1.5*	40.3
DVLA	1.4	1.5	0.5
Office of National Statistics	29.0	0.3	48.3

*Deloitte, May 2013, 'Market Assessment of Public Sector Information' *adjusted by DotEcon*

- 8.20 The total implied consumer surplus for paid-for PSI across these PSIHs amounts to £496.7m. Assuming, as Deloitte did, that these PSIHs account for

¹²⁶ Using the formula Consumer surplus = 1/2 (Revenue/Price Elasticity).

70% of total PSI revenue,¹²⁷ the scaled-up total consumer surplus from paid-for PSI would thus be £710m.

Producer surplus

8.21 CUPI and Deloitte use the same approach to estimating producer surplus, based on the notion that this consists of returns earned over and above a PSIH's target ROCE (where applicable). As argued for the estimates of consumer surplus from paid-for PSI, we consider that the samples are sufficiently similar for a comparison of the CUPI and Deloitte estimates (£70m and £100m respectively) to be appropriate, indicating an increase of £30m.

Consumer surplus from free PSI

8.22 With regard to the consumer surplus associated with PSI provided for free, the approach employed in the CUPI study and the methodology used by Deloitte are somewhat different. The CUPI study based its estimate on statistics about licensing, specifically relying on the ratio between Click-Use Licences (free PSI) and value-added licences (paid-for PSI). The ratio was assumed to reflect the ratio of usage (or 'quantity') of free PSI and paid-for PSI; this assumption, combined with the demand already estimated for paid-for PSI, made it possible to estimate demand and consumer surplus for free PSI. On the other hand, the Deloitte study did not attempt to construct a comparable ratio. Instead, it based its estimate on download statistics, which give an estimate of the usage (or 'quantity') of free PSI with the assumption that two thirds of downloaded datasets are actually used, and on an estimated average willingness to pay (or 'choke price') of £1300.

8.23 Consumer surplus from free PSI in the CUPI study was very small (less than 4% of the total economic value). This may simply indicate that the supply of free PSI was limited at the time of the CUPI study. However, to some extent the figure may also understate the value of free PSI because the Office for National Statistics – which did provide data for free at the time – had not responded to the OFT's questionnaire and was therefore not included in the sample. We will make adjustments for this as described below.

8.24 The Deloitte estimate of consumer surplus from free PSI is not reported separately, but it can be calculated as follows. Using the elasticity and revenue figures for the list of PSIHs reported by Deloitte (without making any adjustments) yields a consumer surplus from paid-for PSI of £400m, for PSI that is made available by these PSIHs. Using Deloitte's assumption that these PSIHs account for 70% of total PSI revenue, this implies a total consumer

¹²⁷ Based on a similar assumption made in the Cambridge study.

surplus from paid-for PSI of £572m. Given that Deloitte estimated total consumer surplus from all PSI (paid-for and free) of £1.6bn, this implies a consumer surplus from free PSI of around £1bn.

- 8.25 Deloitte's estimated consumer surplus from free PSI is based on 2.7m downloads, the majority of which were from the ONS website. The ONS already offered free dataset downloads at the time of the CUPi study. Given that the ONS was not included in the CUPi sample, it would not be appropriate to compare the two studies' estimates of consumer surplus. Instead, we construct an estimate of the current annual consumer surplus from free PSI based on an estimated number of downloads from data.gov.uk, data.london.gov.uk, and key PSiH websites offering downloads that have been made freely available since the CUPi study (eg downloads of OS OpenData through the OS website).
- 8.26 Our estimate of the number of downloads, based on information collected as part of this evaluation, is 550,000.¹²⁸ Deloitte's estimation implies an estimated consumer surplus of £370 per download.¹²⁹ Combining these values, we obtain an estimate of consumer surplus from free PSI of around £200m, which can reasonably be compared to the equivalent estimate from the CUPi study. However, having excluded ONS download statistics, the estimate of £200m does not capture benefits from any improvements that the ONS may well have made, in terms of what PSI is made available and how it is made available. In the absence of any quantifiable evidence in this regard, we do not attempt to adjust the estimate for this.

Comparing CUPi and Deloitte snapshots

- 8.27 When comparing the estimates of economic value from the CUPi study with those derived from the Deloitte study, one question is how to adjust for inflation. It might appear reasonable to correct for general inflation using the GDP deflator. This would increase the CUPi values by around 16%.¹³⁰

¹²⁸ Annual downloads of open data from data.gov.uk can be estimated based on the number of clicks on download links and excluding those datasets that are charged for. We have obtained the relevant monthly statistics from December 2012 onwards, while Deloitte found that between Jan 2010 and Sep 2012 there were over 826,000 clicks on download links on data.gov.uk (Deloitte, 2012, 'Stimulating demand for open data in the UK', pp.5, <http://www2.deloitte.com/uk/en/pages/deloitte-analytics/articles/stimulating-demand-for-open-data-in-the-uk.html>). Based on these sources, the number of free PSI downloads from data.gov.uk in 2012 is estimated as 360,000. An additional 190,000 downloads are estimated to have been made from alternative websites. These include data.london.gov.uk and PSiH websites where data has been made available for free since 2006 (for example, the Land Registry, OS, the Environment Agency's DataShare website). The estimate is based on download statistics provided by some major PSiHs, scaled up for additional PSiHs for which download statistics were not available.

¹²⁹ As implied by the (inferred) estimate of consumer surplus from free PSI at £1bn from 2.7m downloads.

¹³⁰ The latest GDP deflator data at the time of writing provides values of 83.049 and 96.58 for the financial year 2005/06 and 2011/12 respectively, and thus an increase in general prices between the two studies of 16.3% (see https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/383986/GDP_Deflators_Autumn_S_tatement_December_2014_update.csv/preview).

However, '[u]sing the GDP deflator may underestimate the growth in the potential size of PSI related markets. One reason to believe this lies in the increased adoption of consumer computing technology in the form of smartphones, laptops and tablets. This trend would work to increase the potential customer base for products using public sector information as an input, for example, GPS enabled navigation.'¹³¹

8.28 Indeed, the overall increase in consumer prices from March 2006 to March 2012 by around 20% masks rather different developments in prices for different groups of goods and services. For example, the price of the 'Communication' subgroup of the CPI increased by only around 7%. Prices for audio-visual equipment and related services fell by 45%, and prices for data processing equipment fell by 60%. CPI data provided by the ONS does not include categories that would obviously encompass products and services of the nature supplied by PSIHs, but given that prices for products and services related to data distribution and exploitation have typically fallen in nominal terms, there is no compelling justification for adjusting for inflation in principle. We therefore report both unadjusted and adjusted CUPI figures in our comparison below.

Table 8: Comparison of CUPI and Deloitte-derived estimates (£m)

	CUPI	CUPI-adjusted*	Deloitte	Increase
Consumer surplus from paid-for PSI	500	580	710**	130 - 210
Consumer surplus from free PSI	20	23	200***	177 - 180
Producer surplus	70	81	100	19 - 30

Adjusted using the GDP Deflator. **Calculated based on adjusted values for UKHO revenue and Met Office elasticity. *Calculated based on alternative estimate of the number of downloads.*

Attribution to CUPI

8.29 In order to attribute benefits to CUPI, we take as the starting point the estimates of the increase in the value of PSI, as found in the previous section. Though we have argued that there is no compelling justification for adjusting the CUPI estimates in line with inflation, we also acknowledge the inherent uncertainty in both the CUPI and Deloitte-derived estimates, partly due to differences in methodology. To minimise the risk of over-stating the increase in value of PSI, part of which may be due to the CUPI study's impact, we do adjust the CUPI estimates of economic value for inflation – that is, we take the lower bound of the 'Increase' column in Table 8, as a relatively conservative

¹³¹ The National Archives, 'Impact Assessment for Transposition of Directive 2013/37/EU, regarding the Re-use of Public Sector Information,' Annex D, paragraph D.6;
<http://www.nationalarchives.gov.uk/documents/information-management/impact-assessment.pdf>.

estimate of the increase in value of PSI, which is summarised in Table 9 below.

Table 9: Estimated increase in the value of PSI

	(£m)
Increase in consumer surplus from paid-for PSI	130
Increase in consumer surplus from free PSI	177
Increase in producer surplus	19
Total:	326

8.30 There are competing causal factors to which the £326m increase might plausibly be attributed. We have identified the key factors as:

a) changes made by PSIHs since 2006, which include improvements in four key categories

- i. availability of PSI;
- ii. licensing terms and restrictions;
- iii. pricing; and
- iv. quality of service.

b) extraneous changes that have affected the value of PSI since 2006 (eg the proliferation of internet-enabled handheld devices may have widened possibilities for re-use; technological change may have enabled improvements in the quality of PSI that is made available).

8.31 In attributing benefits to specific causal factors, we take the entire sum of £326m as the starting point, rather than treating each of the three components of economic value individually. This is primarily due to the complexity that arises from the interaction of the causal factors and individual components. For example, improved overall availability of PSI should increase both types of consumer surplus, but some changes in pricing (eg move towards Open Data) in practice affect the availability of paid-for/free PSI and might have directionally opposite effects on consumer surplus from paid-for PSI and from free PSI. Since these factors are interrelated, the net effects on individual components of economic value may be ambiguous and attempting to attribute causality at the level of the three individual components would only introduce unnecessary complexity.

8.32 Our methodology for the attribution of benefits follows three stages:

- in stage 1, we attribute a proportion of the total benefits (£326m) to extraneous changes; the remaining proportion is the estimate of benefit that is due to changes made by PSIHS;
- in stage 2, we attribute a proportion of the estimated benefit that is linked to changes made by PSIHS to each of the four main categories of (improved availability, licensing, pricing and quality of service); and
- in stage 3, for each of the four main categories of change, we attribute a proportion of the estimated benefit to the CUP study.

8.33 At each stage, assumptions about attribution will be based on our qualitative assessment of developments since 2006, drawing on evidence and views collected throughout the evaluation. Given that there is little data to support these attributions, our aim is to make reasonably conservative assumptions that are reasonably plausible, acknowledging that these are open to debate and disagreement.¹³²

Stage 1

8.34 Quantifying the impact of extraneous demand changes is problematic. To illustrate this, ConsultingWhere and ACIL Tasman found that, even when considering only the benefits specifically related to OS OpenData, ‘no single ‘killer app’ was identified, but rather a whole series of incremental benefits across a wide range of sectors of the economy’.¹³³ Extending the scope to all types of PSI, it would not be feasible to identify and estimate demand changes from all sectors of the economy that make use of PSI.

8.35 There is also a lack of a suitable proxy for extraneous demand changes. For example, the mobile app market has been growing very rapidly and this may to some extent reflect the new uses of PSI that contribute to increasing its value. However, many of the most popular types of apps (eg books, games and entertainment apps) have no connection to PSI. Only some types of PSI are typically exploited by apps (eg transport, weather and mapping data) and even in the relevant app categories many apps use alternatives to PSI (eg Google maps data¹³⁴). Data is not available at a sufficient level of granularity to separate different types of apps, so there are limits to using the growth of the app market as a reasonable proxy. Moreover, while some apps are

¹³² Given that the approach is clearly laid out, it should be straightforward to look at the impact that different assumption would have on the estimate of benefits.

¹³³ ConsultingWhere and ACIL Tasman, 2013, ‘Assessing the value of OS OpenData to the Economy of Great Britain – Synopsis’, p.13, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/207692/bis-13-950-assessing-value-of-opendata-to-economy-of-great-britain.pdf

¹³⁴ We understand that Google maps data and other alternative offerings make use of OS OpenData.

charged for, many PSI-based apps tend to be free to end-users, meaning that the revenue that they generate (eg through advertising) is not easily observed. Because of these issues, the available statistics about the growth of the app market are unlikely to provide a suitable proxy for the exogenous increase in the value of PSI.

8.36 Therefore, we have relied upon our desk research and engagement with stakeholders, in particular those representing the user community. On balance, this indicates that extraneous changes – such as innovations in software and hardware, the subsequent proliferation of these, and changes in costs of data collection and processing – have had a substantial impact on the value of PSI since 2006. On balance, a plausible assumption is that these changes have contributed to increasing the actual economic value of PSI almost as much as the various changes made by PSIHS. Reflecting this view, but also the considerable uncertainty of the assumption, Table 10 below presents low, middle and high estimates of the benefit that can therefore be attributed to PSIHS changes.

Table 10: Attribution of benefits, stage 1

Estimate	Attribution to extraneous factors	Attribution to PSIHS changes	Benefit due to PSIHS changes (£m)
Low	60%	40%	130
Mid	40%	60%	196
High	20%	80%	261

Stage 2

8.37 We now consider to what extent the benefit estimated above is likely to be linked to specific types of changes made by PSIHS. Table 11 below summarises the main changes that have been observed in each of the four categories.

Table 11: Summary of changes made by PSIHS

Category of change	Changes observed
Availability of PSI	Substantial increase in the amount of (unrefined) PSI available
Licensing terms and restrictions	Improvements through move to OGL for Open Data in general, and through simplifying and streamlining licence agreements (in the case of OS in particular)
Pricing	Substantial improvements in terms of much more PSI now being available for free Licensing revenues may not have increased in proportion with the increase in the amount and quality of information available, suggesting that quality-adjusted prices may have fallen in real term, though evidence is not conclusive
Quality of service	Little change in relation to accounting separation/cost allocation Improvements in quality of data and the ease with which data can be re-used Some evidence of improved engagement with users

8.38 The attribution of benefits to particular categories is designed to reflect the observed changes above, together with an assessment of the likely

significance of the changes. Specifically, inadequate availability of PSI was identified as the largest source of economic detriment by the CUPi study and there is evidence of substantial improvements in this regard, so we attribute a relatively large share of benefits to this area. Pricing has also seen substantial change, which can be expected to have had a material impact on (potential) re-users. On the other hand, changes in licensing and quality of service are relatively difficult to observe; on balance, the improvements made seem to be somewhat more patchy and the impact of such improvements seems to be less tangible and potentially smaller than for other changes.

8.39 Reflecting our assessment of changes made by PSIHs, the attribution of benefits to specific categories of change is shown in Table 12 below.

Table 12: Attribution of benefits, stage 2

Category	Estimated share of benefits	Low value (£m)	Middle value (£m)	High value (£m)
Improved PSI availability	50%	65	98	130
Improved licensing terms	15%	20	29	39
Improved pricing	25%	33	49	65
Improved QoS	10%	13	20	26

Stage 3

8.40 For each of the four categories of change that have been identified, we now consider to what extent benefits are attributable to CUPi. Our approach here is guided by the qualitative assessment of the CUPi study's direct and indirect effects, which is summarised in Table 13 below.

Table 13: Attributability of changes to CUPi

Category	Changes observed	Attributability to CUPi
Availability of PSI	Substantial increase in the amount of (unrefined) PSI information available	Low to medium Changes are most likely driven by the Open Data agenda and changes in technology that have resulted in lower cost of gathering and distributing information, and exploiting data leading to an increase in demand Some PSIHS state that CUPi recommendations have helped them to focus on their data strategy
Licensing terms and restrictions	Improvements through move to OGL for Open Data in general, and through simplifying and streamlining licence agreements (in the case of OS in particular)	Medium to high Improvements in relation to non-OGL licences are strongly attributable to CUPi as not covered by Open Data policies Availability of Open Data may have affected commercial licensing strategy
Pricing	Substantial improvements in terms of much more PSI now being available for free Licensing revenues may not have increased in proportion with the increase in the amount and quality of information available, suggesting that quality-adjusted prices may have fallen in real term, though evidence is not conclusive Little change in relation to accounting separation/cost allocation	Low to medium Free data is largely the result of Open Data as CUPi did not advocate making available information for free, but focused on cost recovery and avoiding margin squeeze
Quality of service	Improvements in quality of data and the ease with which data can be re-used Some evidence of improved engagement with users	Low to medium Better engagement with users can partly be attributed to CUPi recommendations, but is also the result of the involvement of organisations such as the Open Data User Group and the Open Data Institute Improvements in quality of data and ease of use largely the result of technological developments

8.41 Based on the above, but recognising the relatively uncertain and normative nature of this exercise, we have stated upper and lower bounds for the proportion of benefit that can plausibly be attributed to CUPi in each category, as shown in the column ‘Attributability to CUPi’ in Table 14 below. For each of the four areas of change in Table 14:

- the ‘low’ value is the product of the corresponding low value in Table 12 and the lower bound of the ‘Attributability to CUPi’ range;
- the ‘middle’ value is the product of the corresponding middle value in Table 12 and the middle value of the ‘Attributability to CUPi range’; and
- the ‘high’ value is the product of the corresponding high value in Table 12 and the upper bound of the ‘Attributability to CUPi range’.

Table 14: Attribution of benefits, stage 3

PSIH changes	Attributability to CUPI	Low value (£m)	Middle value (£m)	High value (£m)
Improved PSI availability	5% - 15%	3	10	20
Improved licensing terms	20% - 50%	4	10	20
Improved pricing	5% - 15%	2	5	10
Improved QoS	10% - 25%	1	3	7
Total:		10	28	55

- 8.42 In order to interpret the final estimates in Table 14 above, it should be reiterated that all figures have been estimated on an annual basis, starting with the estimates of the economic value of PSI at the time of the CUPI study and at the time of the Deloitte study. Looking at the figures for a single year is commensurate with the finding from our evaluation of broad support for the hypothesis that CUPI **accelerated** the developments related to re-use of PSI rather than changing their absolute magnitude. A conservative simplifying assumption appears to be that, for those improvements that are attributable to CUPI, the CUPI study had the effect of bringing about the improvements a year earlier than they would otherwise have occurred in the counterfactual.
- 8.43 Therefore, the estimated benefits resulting from the CUPI study are in the range £10m - £55m, with a mid-range value of £28m.
- 8.44 Given that the estimated increase in value of PSI is almost entirely driven by the change in consumer surplus, it follows that the vast majority of the estimated benefits have accrued to consumers. For reference, the estimated benefits to consumers resulting from the CUPI study, as derived by repeating the above analysis while disregarding the change in producer surplus, are in the range £10m - £52m, with a mid-range value of £27m.

9. Conclusions

- 9.1 The use of PSI has grown substantially since the publication of the OFT CUIPI report in December 2006. This growth has been driven by a number of factors, only some of which are related to changes made in response to the CUIPI recommendations. Other factors that have played an important role in the growth of PSI use are the Government's Open Data agenda – motivated to a large extent by the desire to improve transparency and accountability of the public sector, but also aiming to stimulate economic growth – and wider technological developments.
- 9.2 The multitude of drivers makes it difficult to establish with any degree of precision the impact that the CUIPI recommendations had on the availability and use of PSI. Moreover, given the time that has passed since the CUIPI report was published, documentary evidence – in particular, in relation to changes that may have been made at individual PSIHs – is scant. Whilst policy measures taken in the wake of CUIPI are generally well documented, it is often difficult to establish their tangible impact.
- 9.3 We have relied on a review of policy documents, information provided by OPSI and the input of various stakeholders with whom we have engaged in the course of our study. These include policy makers, experts from the Open Data community, PSIHs and PSI users. We have undertaken a number of detailed case studies of PSIHs to understand what has changed since the CUIPI study, and to what extent these changes can be attributed to CUIPI.
- 9.4 There seems to be broad agreement that the CUIPI study acted as a catalyst. It highlighted many issues that had been raised before but which remained unresolved at the time of the CUIPI study, and raised awareness of the benefits that could be realised if more PSI were made available on better terms, with better quality and without restrictive licence conditions.
- 9.5 However, whilst the thrust of the OFT's recommendations has generally been accepted, its implementation has been rather patchy. Some of the detailed recommendations have been implemented, but those that were at the core of the overall package have not.
- 9.6 Specifically, those recommendations that were aimed at creating an effective regime for enforcing competition principles by making PSIHs draw a distinction between information for which they were the sole supplier ('unrefined' information, in the OFT's terminology) and information that could be competitively supplied ('refined' information) and supply the former in a way that would not limit or restrict competition in the provision of the latter have not gained traction. Accounting separation and pricing based on a clear

distinction between contestable and non-contestable activities remains at the discretion of the PSIHs.

- 9.7 The Government committed to looking further at the implications that the pricing principles recommended by the OFT would have on the financial viability of trading funds. However, it is unclear what tangible impact this work had. A condensed – and perhaps overly simplistic – view of events would be that the CUPI study triggered the Cambridge study, which led to the TFA, which resulted in little change other than at OS, for which a new business strategy was developed. This addressed some of the issues that the OFT had recommended be resolved as a matter of urgency, but did so with some considerable delay (though accounting separation for OS, which was the subject of on-going discussions in the years following CUPI it was never put in place).
- 9.8 The reasons for this are not entirely obvious. To some extent, the OFT's choice of terminology (unrefined/refined) may have evoked some connotations that were less than helpful in making sure that the underlying concepts would be adopted (in particular in relation to the concern that the concept of 'unrefined' information somehow suggested that no skills and little effort were needed in producing such information). The OFT should perhaps have been more alert to these concerns, and provided further clarification as soon as it became apparent that these concepts would not be readily adopted.
- 9.9 Indeed, it is surprising to see that the implementation of the OFT's recommendations should have been affected by what would have been an issue of terminology, not least because the Government, in its response to the CUPI study, was entirely clear about the thrust of the OFT's recommendations – namely to protect competition in contestable activities from restrictions and distortions that might arise from strategies limiting access to PSI whose creation was non-contestable.
- 9.10 At this point, the main concerns with implementing the OFT's recommendations appear to have been associated with the impact that the proposed changes would have on the financial position of trading funds and the inherent difficulty in developing a systematic and commonly accepted approach for establishing which activities of a specific PSIH should be deemed to be unrefined information activities and which should be deemed to be refined information activities.
- 9.11 This is somewhat ironic, given that the OFT had clearly sought to anticipate these concerns and develop recommendations that would not have substantive implications for the public purse. Indeed, In designing its

recommendations, the OFT was aware of the potential resistance to their implementation, in particular because previous initiatives had aimed to address some of the same problems identified in the CUPI report but had not generated much impact.

- 9.12 In particular, the OFT did not require that unrefined information be priced at marginal cost, but merely aimed to ensure that such information – for which PSIHs were the sole providers – was not priced above cost (with the resulting margin potentially being used to price refined information below cost). What the OFT did require, however, was that PSIHs be transparent about their cost allocation and allow their pricing to be checked against this.
- 9.13 It is unclear why the requirement that PSIHs draw a distinction between contestable and non-contestable activities and account separately for these was not implemented for fear that this might affect the financial position of these bodies (and in particular trading funds). Indeed, the implementation of the OFT's recommendations would only have had financial implications for trading funds, if their revenues at the time were inflated as a result of overpricing unrefined information. There is no reason why the recommendation that PSIHs account separately for refined and unrefined information activities should be tied to specific pricing principles, in particular the question whether unrefined (or raw) information should be priced at marginal cost.¹³⁵
- 9.14 Although the OFT tried to pre-empt these concerns by designing its recommendations so that they would not be in any way inconsistent with the trading fund model, it might perhaps have been more ready to provide clarification and re-iterate its reasoning when it became clear that recommendations that were aimed at addressing competition concerns were not implemented because of concerns that changes to the pricing principles that were not part of the OFT's recommendations could have a detrimental impact on the financial position of trading funds. The OFT had clearly envisaged (and indeed recommended) that such further work be undertaken, but there was nothing in its recommendations that would link the adoption of accounting separation principles to the completion of such work. Emphasising this point once it became clear that tying up these two recommendations might lead to non-implementation (or, at the very least, substantial delays) might have been useful.
- 9.15 Put differently, the OFT had anticipated that in order to be implemented, its recommendations would have to pre-empt concerns of a divergent group of stakeholders (including HMT and ShEx) and take account of potentially

¹³⁵ In this regard, both the guidance provided in HMT's 'Managing Public Money' suggesting that raw information provided by PSIHs other than trading funds should be priced at marginal cost, and the findings of the Cambridge review went beyond what the OFT had recommended.

conflicting interests. The OFT appears to have tried to address these issues when designing its remedies, but then has perhaps not done enough to ensure that these efforts were successful.

- 9.16 Although the principles underpinning the OFT's recommendations have been re-affirmed through further work, the impact they have in practice is limited. For example, the TFA identified accounting separation as a key element of good practice and the enhanced IFTS acknowledged the importance of an upstream/downstream distinction, with the downstream arm operating on the same terms as third parties. The TFA findings endorsed making information more easily available and the IFTS enhancements placed somewhat greater emphasis on the maximisation of information made available for re-use, but it is difficult to identify substantial changes in the behaviour of PSIHs that have been driven by these principles. Compliance with these various principles has generally not been enforced, with little evidence of substantial improvements in these areas since the CUPI study was published.
- 9.17 One reason why compliance with these principles is sometimes lacking may be that there has not been the step change in OPSI's resources that the OFT had recommended. Whilst OPSI's remit has been broadened, the resources at its disposition have not increased substantially, and the sanctions it would have available to enforce any recommendations it might make under the Re-use Regulations or the IFTS are limited. This means that there are inevitable limits to the role that OPSI is able to play, including through the IFTS, in addressing the concerns raised by the OFT.
- 9.18 The OFT itself was given the opportunity to comment on the draft guidance prepared as part of HMT's work announced in April 2006 on the modernisation of 'Government Accounting'. It also remained involved to some extent with the TFA and in discussions with OS. However, the extent of this involvement appears to be limited compared with what was envisaged in the CUPI study. This may to some extent be explained by the shift in the organisation's strategic priorities over the years following the CUPI report. This too may be a reason why many of the recommendations were not implemented.
- 9.19 Perhaps the strongest impact of the OFT's recommendations can be found in relation to improvements in licencing and quality of service. The introduction of a new licensing model for OS provides the clearest example of this. These recommendations were perhaps more successful because they were relatively specific and did not have any immediate revenue implications. Nevertheless, it is notable that the new model was rolled out some four years after the publication of the CUPI report (in spite of the OFT's view that the

problems at OS had to be addressed without delay) because of a prolonged dialogue with OFT, government and OS.

- 9.20 More generally, while anecdotal evidence supports the idea that the CUPI study facilitated or accelerated the expansion of the amount of PSI available for re-use, undoubtedly the most significant expansions took place from 2009 onwards, driven by the transparency and Open Data objectives of successive Governments.
- 9.21 Developments driven by the Open Data agenda have had a material impact on the OFT's main areas of concern: not only has the amount of PSI that is available for re-use increased, but much information is now available for free; including information that was previously licensed on a chargeable basis. The creation and involvement of institutions such as ODUG also appears to have contributed to improvements in relation to quality of service – a concern raised by the OFT.
- 9.22 Although not directly related to the OFT CUPI report and driven to some extent by a different agenda, the release of information as Open Data with the aim of stimulating economic growth, and in particular calls for more valuable datasets to be released, re-iterate the OFT's arguments that widening the re-use of PSI could create substantive benefits for the economy.
- 9.23 In spite of the substantial increase in the amount of PSI available for re-use compared with the time of the CUPI report, some residual problems still exist. Some of these problems are similar to those identified by the OFT. Lack of a commitment to the provision of PSI by smaller PSIHs (such as LAs, for example) still appears to hamper the re-use of information through aggregation, which could generate substantial benefits. There are still concerns that a lack of accounting separation and clear pricing principles allows some PSIHs to engage in behaviour that potentially restricts or distorts competition in the provision of value-added services.
- 9.24 The latter concerns appear to have been exacerbated by the increasing importance of Open Data. Requiring self-funding public bodies to provide information that is costly to collect and maintain for free means that these bodies either need to receive compensation from the public purse or must increase the revenues they raise from other activities. The first of these may result in concerns about unfair cross-subsidisation of value-added activities, whilst the latter may increase the pressure on trading funds to discriminate against re-users where this is possible (eg in relation to information that is not covered by the Open Data requirements) or to increase the scope of their value-added activities.
- 9.25 In this regard, the fact that many of the core recommendations made by the OFT have not effectively been implemented is of particular concern. Adopting the distinction between refined/unrefined information – or another distinction reflecting the difference between contestable activities of a PSIH and those

that are not contestable – and requiring PSIHs to account separately for these different parts of their business would have been and would continue to be helpful in monitoring and enforcing competition principles in the supply of PSI. It would also have been helpful in showing the cost of creating unrefined information and the business implications of requiring the release of such information as Open Data.

- 9.26 Arguably, such a distinction would be particularly effective if it matched the definition of the public task. Given the role played by the public task in the Re-use regulations, their effectiveness in terms of promoting the release of information collected through non-contestable activities as inputs into activities that are contestable would be maximised if the public task were limited to non-contestable activities. The OFT in its recommendations was of course explicit in pointing out that its proposed distinction between unrefined and refined information was different from and unrelated to the concept of the public task. However, many of the subsequent discussions¹³⁶ have recognised that the question whether a particular activity is contestable could provide a useful context for the public task definition.
- 9.27 In closing, it is worth emphasising that limiting the public task to the creation of unrefined information and requiring proper separation between public task activities and value-added commercial activities would not be incompatible with the trading fund model, or limit the ability of trading funds to engage in commercial activities. The public task – collecting and making available unrefined information – would have to be funded by revenues from the licensing of such information for re-use, both to third parties and the trading funds' own downstream operations, and trading funds would be free to generate additional revenue from commercial activities provided on a level playing field with commercial re-users.
- 9.28 What would remain unresolved, though, is the tension between the trading fund model and the Open Data approach: requiring trading funds to self-finance while at the same time asking them to make available data for free means that either the Government has to provide funding for some of this activity (like in the case of OS, which was a trading fund at the time it was required to release data as Open Data, effectively runs counter to the trading fund idea), or that trading funds need to make up the shortfall of revenue elsewhere. Resolving this tension may be one of the major challenges in relation to the provision of PSI going forward.

¹³⁶ For example, in the course of its involvement with the TFA, the OFT sought to highlight the difficulties that arise from a public task definition that is entirely divorced from an assessment of upstream and downstream activities based on contestability. OPCI's most recent decision on the complaint made against the Coal Authority also appears to argue that the need to allow fair competition might be an important factor in arriving at a reasonable and clear definition of the public task.

Appendix A: Stakeholder engagement

Overview

1. As part of our evaluation of the OFT's 2006 market study into CUPI and its follow-on work, we have engaged in a substantial consultation exercise. This has involved interviews with a diverse range of stakeholders including:
 - c) members of the CMA originally involved in the CUPI study or the OFT's follow-on work;
 - d) policy makers and bodies forming part of the current PSI ecosystem;
 - e) PSIHs subject to detailed study;
 - f) PSIHs not subject to detailed study but who communicated their interest in contributing to the evaluation; and
 - g) users of information held by case study PSIHs and users of other PSI.
2. We also received a small number of written submissions relating to the study and several interviewees provided us with supplementary materials prior to or following their respective interviews. Our assessment of stakeholder views has been shaped by these interviews, written submissions and additional material provided or referenced by interviewees as part of this consultation process.
3. Our case study PSIHs include OS; Met Office; Environment Agency; Coal Authority; Land Registry; DVLA; Elgin; and the UK Hydrographic Office.
4. Aside from the case study PSIHs, several stakeholders were targeted with invites to contribute to our study – mainly public bodies and institutions with a clear involvement in the PSI area. Many, but not all of these accepted the invites.
5. In addition, some stakeholders made contributions voluntarily, responding to open invites for contributions that were featured on the CMA, TNA and DotEcon websites, or being referred to us by stakeholders that had already been interviewed. These stakeholders include Access Solicitor; APPSI; CMA; DVSA; eMapsite; European Commission; Getmapping; Open Data Institute; Open Data User Group; OPSI; PinPoint Information Ltd; PSI consulting; ShEx; Spend Network; Streetmap; Total Car Check; Placr (TransportAPI); a user of multiple sources of PSI; a Met Office customer and UK Crime Stats.

6. For the avoidance of doubt, we should emphasise that the PSI users that have responded to our invitation or have approached us are not representative of the group of PSI users as a whole, and that the views they have expressed need to be considered in the context that many of the respondents may have come to this with their own objectives and motives.
7. In this Appendix, we present an overview of the views expressed by all of these stakeholders on a number of broad themes. Views expressed in relation to the specific case studies are captured in our case study summaries in Appendix B.

Impact of CUPI

Overall assessment

8. The overall view expressed by stakeholders was that the CUPI study was a landmark initiative relating to PSI re-use and had a positive effect in highlighting the potential value of the PSI market and identifying competition problems that were hindering the expansion of the PSI sector to its full potential. The CUPI report was published in a context of already on-going discussions regarding re-use of PSI - it was not an isolated event, but rather 'an important step in a journey'. It was the first major attempt to put forward economic arguments in relation to PSI issues and probably played a role in accelerating the debate. At least partially as a result of the CUPI study, 2006 became a 'tipping-point' in which developments were accelerated based on a notion of PSI as 'fuel for the new economy'.
9. In a sense, CUPI acted as a catalyst, creating momentum behind the efforts made in the following months and years to address features holding back the growth of markets based on PSI. CUPI also appears to have had some influence on the development of the transparency and Open Data agenda, and it was noted that the CUPI study included clear statements about what was a good/bad business model.

Impact of the refined/unrefined information distinction

10. The distinction between unrefined and refined information that was referenced in many of the OFT's recommendations (in particular in relation to pricing) was seen to be confusing and the terminology was generally regarded as unhelpful. The concepts were seen to be difficult to apply in practice, and might be appropriate for some, but not other PSIHs.
11. At the same time, the underlying notion of separating between contestable and non-contestable activities is helpful and still relevant today and could be

valuable in developing a more coherent policy stance, eg in relation to tensions between commercialisation objectives and Open Data objectives.

Evaluation of impact

12. In terms of evaluating the impact of the CUPI study, the general view expressed by stakeholders was that:
 - a) estimating economic value of PSI accurately is difficult in general; and
 - b) It is very hard to say whether and to what extent developments in PSI subsequent to CUPI can be attributed to the CUPI study given the amount of time that has passed and the number of other factors that have been changing over the period since CUPI.

Impact of CUPI on subsequent central Government and OPSI initiatives

13. A number of tangible responses to the CUPI study were cited in stakeholder interviews:
 - a) Following the Government response to CUPI, OPSI periodically attended meetings with BIS about the progress made and six-monthly progress reports were produced to chart the response to CUPI recommendations over time;
 - b) In line with the recommendation in the CUPI study that guidance documents for PSIHs should be improved, developments such as HMT's guidance on Charging for Information in 2007 are likely to have been prompted by CUPI;
 - c) In the years following CUPI, new OPSI guidance documents were introduced in relation to specific topics (eg guidance on drawing up a public task, guidance to exceptions to marginal cost pricing); and
 - d) The changes made to IFTS principles, which amounted to a 'tightening up' of OPSI's IFTS assessment process, had strong links to CUPI. Moreover, the influence of the CUPI study helped to promote IFTS and show its importance.

PSIH-specific initiatives

14. Stakeholders have cited a number of direct responses to CUPI by PSIHs. In particular:

- a) As a result of the Government's aim to encourage the expansion of the IFTS to cover all PSIHs with PSI income over £100,000, particular public bodies were targeted, such as the Coal Authority, which joined the IFTS directly as a consequence of CUPI.
- b) A series of OS user workshops were carried out as a result of the concerns highlighted by CUPI and some summaries and actions were produced as an outcome.
- c) OS made progress in amalgamating its contracts for different types of use, which substantially reduced the total number of contract types, as well as simplifying their content by making contracts slimmer and less legalistic.
- d) OS's new business strategy was announced in April 2009, and work was done in monitoring the implementation of the strategy using the framework of measures and outcomes published on OPSI's Perspectives blog.
- e) The trading funds submitted action plans for the maximisation of PSI re-use, as requested in the Government response to CUPI.
- f) According to the UK Hydrographic Office, its involvement in the Cambridge study – directly related to the CUPI study – helped it better understand and acknowledge the extent to which its information could be classified as refined/unrefined, and to understand the implications of having others' IPR in its products. Licence fees became more transparently calculated due to UK Hydrographic Office's efforts in calculating the cost of obtaining information in support of the Cambridge study.
- g) According to the DSA, the study was considered to be quite radical, and it 'directed' the DSA's thinking at that time and contributed to a culture change. One example is that it provoked debate over how different activities or different types of information should be classified at the DSA (eg as raw/value-added or unrefined/refined). It also raised questions about what should constitute the DSA's public task.
- h) The Environment Agency told us that although its objective had always been to maximise the reach of environmental information rather than raising revenues (and is obliged to make certain information available), CUPI contributed to its understanding of issues that may arise when it is involved in activities that overlap to some extent with those being carried out by the private sector. When winding up its property search service shortly after the CUPI report was published, CUPI probably also had some influence on the decision by raising competition concerns in relation to PSIHs operating in value-added markets. The Environment Agency was

already aware of these issues from the property search market study, but CUPI helped to keep them front of mind.

- i) At the Land Registry, CUPI brought about a change of perspective, helping it to think of itself as a data provider with a role in stimulating wider benefits in the public interest. The Land Registry responded to the CUPI study by re-examining its business model, taking account of examples of best practice (eg Companies House) that featured in the report. Although many of these changes would have happened over time regardless, CUPI may have accelerated them. The effects of the CUPI study meant the Land Registry became more customer-focused as a provider of PSI.
- j) Changes in OS's licensing, such as simplification and removal of restrictions, were strongly linked to the CUPI study, whilst other changes such as the release of OS OpenData may well have happened anyway in the absence of CUPI.
- k) The free release of price-paid data by the Land Registry and the provision of aggregate, anonymised data by HMRC, were singled out by one interviewee as a particularly positive development that has taken place since CUPI, and that this was perhaps the change that had the biggest positive economic impact. However, attribution in these cases is less clear.
- l) While there was some overlap between recommendations made in the Environment Agency's 2006 IFTS report and some actions that the CUPI study claimed were being undertaken as a response of the OFT's review, OPSI told us that it is doubtful that the 2006 IFTS recommendations would have been influenced by the OFT and by the CUPI study, but rather they would probably have resulted from OPSI's own review and assessment.
- m) Met Office has undoubtedly made improvements in the quality of service it provides and in its responsiveness to feedback, particularly in the last few years.

Duration of impact

- 15. In relation to the amount of time that CUPI remained a force affecting the development of the PSI market, stakeholder views expressed on this issue are in agreement that:
 - a) this effect was predominantly in the 4 years or so following the publication of the report. While CUPI may have contributed to raising awareness of competition issues around PSI, there was a switch of emphasis around 2010, and since that time the focus has been on transparency rather than competition; and that

- b) The 'break' in momentum behind the PSI re-use initiative as a result of CUPI came as a consequence of a shift in Government policy on PSI, moving away from competition issues relating to PSI and towards the release of Open Data, an initiative driven by a related agenda on openness and transparency of Government.

Factors that inhibited greater impact of CUPI

- 16. Issues raised by stakeholders as to whether the OFT CUPI study could have had more impact highlighted:
 - a) The lack of any follow-up to the CUPI study from the OFT until now, despite having stated that the intention was to conduct a follow-up review 2-3 years after the study; and
 - b) That the CUPI study did not go far enough in expressing a judgment on the adequate business model for different PSIHs (eg trading fund model vs. alternatives) but rather took these as a given, even though the rationale for the adoption of different business models across PSIHs is often weak.
 - c) The momentum behind follow-up work by the OFT was not as strong as hoped for as the OFT's priorities changed over the following years.

Development of the PSI market since CUPI

PSI market over time

- 17. At a high level:
 - a) Since 2006, there has been definite progress in the visibility of issues around PSI and in improving access and re-use.
 - b) In the context of EU countries, the view of the UK's progress in improving access to and re-use of PSI is generally positive.
 - c) With respect to availability of PSI, this has hugely increased since 2006.
 - d) Positive developments in the PSI market over the last number of years have been driven by 'a merger of several agendas', allowing things to move forward more quickly (eg transparency and economic growth agendas).

- e) Where raw data has been made available for free, new entrants have generally been very effective in exploiting the available technology and offering beneficial value-added products.
 - f) Techniques such as merging and linking of datasets have become much easier, and for some types of data, eg geospatial, the number of available sources has increased.
18. The extent to which information should be cleansed and cleaned before being supplied for third party use is an important debate today. Views are mixed as to where the responsibility for this task lies; some PSI users believe that it is the PSI holders' job to 'clean' the data - they may be best placed to do so and this can be costly for private entities - while others consider that the emphasis should be on getting data released, with the private sector being able to take on the tasks of validating, harmonising and enhancing it.

Example of a developed PSI re-use market: Transport

19. The transport sector has been among the biggest data releasers and one reason cited for this is that sufficient pressure has been applied to the gatekeepers of the relevant PSI, and this is typically easier to do where those groups that will benefit from open access to data are very visible. For example, while large parts of the public have an interest in accessing data about local schools, GPs and so on, the problems that can be avoided by releasing transport information are significantly visible via the internet and social media (eg time spent by angry people waiting on delayed trains). Public attention and awareness of the value of PSI, and a proactive attitude towards assessing and solving issues in the PSI market have been cited as important factors for there to be a strong will from Government to intervene in the release of data.
20. Stakeholders have asserted that the degree of 'success' in re-use of PSI and fostering PSI markets also appears to be linked at least in part to the attitude of the parent department to making PSI available. In this context, the DfT is said to have shown a big appetite for release of transport data.
21. The progress made in exploiting the potential of PSI in the transport sector demonstrates that liberal releases of useful PSI will produce the requisite distribution mechanisms and stimulate economic benefits through innovation.

Assessment of UK PSI market development

22. The UK was cited as a positive example within the EU where communities of PSI users do exist – as seen in organisations such as the Open Knowledge Foundation, the Open Data Institute and the Guardian's Free Our Data

campaign. It is asserted that this community aspect can play an important role, making the market more dynamic.

23. At the time the amendments to the PSI Directive were being proposed, the UK was acknowledged to be the member state with the most developed re-use environment with respect to both the framework around re-use of PSI and movement towards more re-use, transparency and Open Data.
24. It has been argued, however, that while the current Government's Open Data agenda has been a big step forward in the field of Open Data, a lot of the highest value datasets are not being released or are being made available with restrictions on commercial re-use.
25. More generally, according to stakeholders, there are two factors offsetting the positive overall assessment of the UK PSI market:
 - a) There is an important distinction between how PSI provision has developed within central and local Government.
 - b) In general, some fundamental problems still remain.

Stakeholder views on both of these issues are considered in the sub-sections below.

PSI within local Government and 'incidental' PSI

26. There is a large amount of 'non-obvious' PSI, much of which is generated by PSIHS incidentally as a by-product of conducting their core function and much of which is held by LAs.
27. LAs represent the largest citizen-centric area of Government; therefore, the potential economic benefits from the information they hold (eg planning information) are argued to be vast.
28. However, while central Government has generally been proactive in its approach to releasing PSI, stakeholders have asserted that LAs have been less so. In particular, Open Data and studies such as CUIPI are part of a central Government agenda that tends not to be a high priority at local Government level as LAs typically face many challenges that are perceived to be more pressing, with limited resources.
29. The result has been that while release of PSI by PSIHS including parts of local Government is, on the whole, reasonably good, experiences in dealing with PSIHS to release PSI is mixed.

30. There were a number of specific issues raised by stakeholders that cause difficulty for those looking to create value from PSI by aggregating it, including:
- a) difficulty in obtaining the information needed;
 - b) poor quality of data;
 - c) providing access to data in a format that is not usable (eg PDF);
 - d) providing data on a timeline that is not conducive to certain types of aggregation tools (those whose usefulness is linked to being 'current'); and
 - e) providing PSI (where this is provided regularly) in different formats over time without engagement with or notification of users.

31. There were a number of underlying causes cited for these problems:

- a) The re-use of PSI held at local level is complicated by the variation in the kinds of systems and the suppliers used by LAs. The heterogeneity among authorities and their sheer number makes it difficult to extract and aggregate information.
- b) A related issue is the power of contractors, which it has been argued has not changed much since the CUPi study, as it is still a considerable obstacle. Some LAs are locked into long-term contracts with IT suppliers that limit the flexibility they have in changing the way that information is processed and released.
- c) There is a lack of will by certain PSIHs to engage in making data available in a useful and effective way (generating work for aggregators to contact PSIHs multiple times, wasting time making the resulting data less useful)

This last point has been cited by multiple stakeholders as a barrier to the emergence of services aggregating data into useful tools.

32. The use of the FOI channel as a mechanism of last resort for releasing PSI (where users access PSI through the issue of requests to the relevant PSIH under the Freedom of Information Act) appears to be significant. However, in addition to being costly for the relevant PSIHs, accessing PSI in this way is problematic:

- a) it is time-consuming for potential re-users;
- b) it takes a relatively long time to gain access to the requested PSI when using this route, meaning that in practice this access channel is only

available to start-ups whose use of PSI is relatively insensitive to when the data is made available; and

- c) there is uncertainty about when data will be received and usable,

Each of these factors acts as a constraint on use of PSI accessed through this channel.

- 33. Bodies such as ODUG, PSTB and DCLG have made efforts to improve the supply of such PSI, but they face greater difficulties at local Government level compared to central Government where the transparency agenda can be enforced more consistently.

Residual problems

- 34. Some stakeholders have cited a sense of dissatisfaction with the progress of the overall debate and with the (lack of) results it has produced. While some argue that many of the risks the CUPI report warned of are still a reality today, others assert that the variety of problems within the PSI market at present are not the original ones.

Public task, Re-use Regulations and PSIH activities

- 35. Stakeholders have expressed the view that the current set-up regarding public task has led to a number of key problems:
 - a) There is a general lack of transparency regarding the distinction of data provided under a PSIH's public task and otherwise.
 - b) Public task is often not clearly defined,
 - c) The lack of separation between different activities of PSI holders means that often there is not a level playing field between the PSIH and the private sector in downstream markets.
 - d) In some cases, commercial interests provide an incentive against facilitating third party access to information.
 - e) There has been mis-use of public task definitions to circumvent the effect of the Re-use Regulations.
 - f) PSIHs have made changes in public task definitions without public consultation.

- g) Making re-use compulsory in the revised Re-use Regulations will have little effect if PSIHs can simply broaden the scope of their public tasks to include what are in reality commercial activities.

The resulting uncertainty about the PSI landscape has been cited as a substantial inhibitor to investment by third parties offering products and services based on PSI.

36. In particular, re-users face risks with licensing PSI in the event that a PSIH has wide-ranging discretion as to what and how it licenses its PSI a result of its public task. For example, users risk negative consequences if licensing data whose generation is part of a PSIH's defined public task, as their licences are at risk of changes that are not protected by PSIH requirements regarding reuse within the Re-use Regulations. This reality has been the subject of a recent complaint to OPSI.¹³⁷
37. Further, in this context, the weight of users' 'right to challenge' has been queried as a real deterrent to PSIHs mis-using its public task statement. Stakeholders have argued that the public task of both the Coal Authority and OS in particular should be drawn more narrowly.
38. The extensive work of APPSI and LAPSI (The European Thematic Network on Legal Aspects of Public Sector Information) regarding the problems that unfettered public task definitions can create are of particular importance, but it appears that they are being ignored.

Conflicting interests and objectives

39. Diverging interests within Government have been cited. ShEx in particular has been mentioned as a body that may have interests that are not aligned with what is best for the market. For example, ShEx may be motivated by incentives such as trying to attract private investors. These conflicting incentives may have obstructed positive change in the PSI market as ShEx has sought to preserve the monopoly position of trading fund PSIHs in their respective markets.
40. An example of such conflicts is the apparent tension between the Open Data ethos and continued pricing for some PSI that appears to have high re-use potential.
41. The PSI re-use agenda continues to be at odds with the trading fund model. The trading fund model is fundamentally problematic, since it encourages

¹³⁷ PinPoint complaint to OPSI regarding the Coal Authority (February 2014). Full OPSI report is found at: <http://www.nationalarchives.gov.uk/documents/information-management/coal-authority-complaint-report-2014.pdf>

commercial trade outside the public task. Lack of transparency of trading funds is a big issue, as it facilitates anti-competitive practices on the part of trading funds.

42. The competing interests of Government as a shareholder and as a promoter of Open Data/transparency were recognised by OS as a recurring problem for it. Moreover, these interests might conflict with the interests of licensed partners. Overall, OS considered that these diverging interests are very difficult for it to reconcile.

Ineffective complaints procedure

43. In general, there can be a disincentive for private PSI users to complain or take aggressive approaches to negotiations, which arises from the monopoly status of PSIHs. Private users of PSI are often happier to express dissatisfaction anonymously rather than use a formal and open complaints procedure for the perceived fear that taking action may compromise their ability to use PSI in the future and therefore endanger the sustainability of their business.
44. The complaints process for PSI users is seen as not working very well. On the one hand, there are few options available to PSI users with grievances other than official complaint such as to OPSI. On the other hand, the complaint option is seen as problematic because bringing a complaint takes a lot of a PSI user's time and effort, and at the end OPSI does not have the power to enforce its decisions, making the result in practice uncertain.
45. Costs are a real barrier to formal complaints, in particular to start-ups that face problems accessing PSI but are uncertain whether their business idea is commercially viable enough to take on such costs and risk in order to access the relevant data.
46. Further, while the PSI Directive contains a non-discrimination rule that is quite clear, proving any alleged breach of this rule can be difficult. This can weaken the incentive for a potential complainant to take action against a PSIH.
47. The result appears to be that the number of actual visible (ie formal) complaints is 'the tip of the iceberg' when it comes to the total amount of problems identified by users.

Lack of effective regulatory enforcement

48. Several stakeholders highlighted that OPSI has a lack of enforcement power, with the ability only to make recommendations as opposed to issue binding

decisions and that this (regulation without the threat of binding decisions/enforcement/ability to impose sanction) affects its ability to regulate the PSI market effectively.

49. In this context, it was noted that, while OPSI 'Best Practice' and 'Guidance' publications do exist, they are not binding and as such tend to have limited effect and/or are applied selectively by PSIHS.
50. In terms of enforcement tools available to OPSI in the absence of binding decision-making power, some stakeholders noted that while OPSI has the power to revoke a delegation of authority for Crown bodies in exceptional circumstances:
 - a) This is seen as a 'nuclear' option and as such has not been used to date.
 - b) A lack of political will, coupled with the risk of litigation, may prevent this measure from being adopted in practice.
51. A number of other intermediate options (writing letters to Ministers, removal of delegated authority in individual instances) were cited as possible reprimands for bad behaviour by PSIHS, but in practice these have not been widely used.
52. One stakeholder argued, however, that 'naming and shaming' of PSIHS is quite an effective tool, the reputational impact could be substantial and that consequently PSIHS do have incentives to make changes as a result of OPSI recommendations.
53. There is a widely held view that OPSI as the PSI regulator is under-resourced. In this context, it has been highlighted by stakeholders that within the CUIP report, the OFT recommended that OPSI should be given greater resources in order to perform its role effectively, and that this has not been acted upon. This is reflected in its number of staff, which has remained around the same from the time of the CUIP study to this day. A consequence of this is a lengthy complaints process (considered below), which has knock-on effects for complaints.
54. Some stakeholders asserted that OPSI lacks the expertise/understanding of the wider market. Others remarked that OPSI might find it difficult to be independent.
55. The absorption of OPSI into the National Archives is said to have decreased OPSI's visibility and 'obscured' its powers, making it harder for re-users of information to know to whom they should direct complaints.

56. One stakeholder expressed the view that the Information Commissioner's Office (ICO) would be better placed to oversee re-use regulation.
57. Going forward and in the context of the amending PSI Directive and its implementation, it was argued that it would be preferable to empower the ICO to make legally binding decisions in relation to complaints about re-use, with an appeal route to a first tier tribunal, as is proposed as part of the implementation of the amending PSI Directive (with the ICO potentially subsuming OPSI).

Data protection issues

58. Data protection issues have been cited as reasons for reticence in releasing PSI, eg there is a view that opening up of DVLA data might facilitate an increase in criminal activities such as car cloning. More generally, PSIHs may feel concerned that PSI that is released for re-use – especially if on the Open Government Licence – might not be used with due care and caution by third parties. This may be particularly relevant to certain contexts, for example where the NHS releases health advice that is periodically updated, but third parties might fail to adopt the latest versions. Any complaints can then reflect badly upon the PSIH, even when it had no responsibility for the re-use of the information.
59. However, data protection and the more general issue of 'responsibility for data' as a hindrance to the release of PSI or release of this PSI on very restrictive licence terms appears (at least in some cases) to go beyond the scope of the issue of protection itself, with use and re-use of PSI potentially being limited by the fear of unforeseen data protection issues arising from the release of PSI with some data protection element that had not been previously identified.
60. Regarding the concerns that data could be mis-used, losing its integrity and possibly compromising safety, two PSIHs noted that while these concerns were very prevalent around ten years ago (and may have been overplayed then), this situation is improving, with backlash following release of data not being as bad as was feared.

Ordnance Survey

61. A significant amount of discussion with stakeholders revolved around geospatial information and the role of OS. This emphasis reflects the importance of this type of PSI, both in its own right and in facilitating the merging and linking of other datasets using a location reference 'identifier', and the extent of concerns.

62. For this type of data, international experience has shown that the existence of non-negligible charges can be a large barrier to commercial re-use, and where charges are reduced, there is typically an explosion in the extent of re-use.
63. In summary:
- c) OS has engaged in some significant positive development since the CUIP report;
 - d) Concerns continue to be expressed in relation to OS acting in ways that might limit the capacity for downstream competition, in particular in the context of OS moving into markets for value-added services; and
 - e) The issue of derived data is seen to have a high level of importance and is seen by many stakeholders as a source of problems (eg in relation to Land Registry's INSPIRE polygon data set).

Area of concern	Views expressed by stakeholders
PSMA	<p>PSMA replaced a competitive process where alternative providers competed with OS, which does not promote competition.</p> <p>OS appears to be overcompensated by the funding it receives through the PSMA</p> <p>The PSMA is a positive development, though a costly one for Government. However, restrictions and complexity continue to cause problems in relation to derived data under the PSMA.</p>
Substitutes available	<p>OS maps have higher accuracy and level of detail than other maps. In addition, they can be made available as data, not just as a map on which a pin can be placed (eg Google maps). This provides opportunities for analysis that simply aren't possible using other sources.</p> <p>Inefficient duplication of geographic information can be an issue as third parties seek to avoid OS's charges.</p> <p>However, OS's inertia and lack of innovation may mean that its advantages over substitutes are being quickly eroded, which may eventually render OS irrelevant.</p>
OS licensing	<p>Registered positive overall experience of OS licensing .</p> <p>OS's streamlining of its licensing framework and move away from specific-use contracts is a significant positive step with regard to potential discrimination.</p> <p>The licensing model has become much easier to understand and less costly to abide by</p> <p>Since OS streamlined its licensing model, the number of partners has gone up considerably (roughly, from 150 to 350).</p>
OS public task	<p>OS does not have an adequately controlled public task. The definition should be made on the basis of an assessment of which products or services could reasonably be provided by the private sector. As things stand, OS is able to alter its public task at will. This dissuades the private sector from investing in areas where OS could then mount an aggressive challenge and prevent businesses from recouping their investments. Changes to the public task should be subject to consultation. GeoPlace's failure to define a public task and adhere to the function for which it was purportedly established is a concern.</p> <p>More work is needed on OS's public task to define it more narrowly and distinguish between public task and other activities.</p> <p>The public task statement specifies that OS should <i>'provide advice and support to the UK Government on all aspects of survey, mapping geographic information'</i> – thus it appears to be both <i>'poacher'</i> and <i>'gamekeeper'</i>.</p>
OS competition in the market for value-added services	<p>OS significantly constrains investment and innovation from the private sector in the UK, through a monopoly position, which allows it to retaliate or encroach into new business areas/through a <i>'passive-aggressive'</i> attitude towards SMEs. It also gives little incentive for OS itself to innovate. Current concerns that OS is migrating into partners' space through value-added initiatives, eg OS Cloud, Location Analytics and OS Leisure. Some OS users have recently complained to the European Commission. The allegation is that OS receives state aid that inflates its profits and allows cross-subsidisation, so it can extend its market power in value-added areas to the detriment of SMEs.</p> <p>Attention has been drawn to Clause 6.1.6 (ii) of Geoplace's Data Cooperation Agreement extends the exclusivity of Geoplace (an OS/local Government joint venture) into adjacent business areas beyond the original purpose of Geoplace and concerns expressed about the range of activities that GeoPlace plans to engage in.</p> <p>OS is believed to often operate according to a business model whereby it will attempt to offer value-added products itself where there is demand for them, rather than allowing third parties to do so.</p> <p>OS is believed to extract a large rent from the licensing of value-added products.</p>
OS relationship with partners/users	<p>There are disincentives for partners to complain:</p> <ul style="list-style-type: none"> • fear of retaliation from OS (though often this is unfounded as OS will try to avoid bad publicity); • perception of low probability of success; and • partners compete with one another, which inhibits them from complaining collectively. <p>The idea that OS has improved engagement with partners was queried.</p> <p>OS's conduct often affects small companies and these are unlikely to have the resources necessary to persist with a complaint.</p> <p>Many complainants have given up over the years both from complaining to OFT and to OPSI.</p> <p>OS partner conference (October 2014) was attended by around 300-400 representatives of OS partners, of which three raised complaints against OS (though this may have been an event where OS presented to partners rather than an event designed for OS partners to provide feedback). The three individuals raised quite different issues and to some extent their individual demands were not compatible with one another, which may be an example of the difficulty OS has in satisfying all of its partners.</p>
OS provision of Open Data	<p>Making OS data available as Open Data has been a significant positive step</p> <p>The benefits of this release of Open Data are limited by the fact that OS's free products are of significantly lower quality than the ones that it continues to charge for.</p> <p>OS OpenData harms OS partners as well as OS itself, but only OS receives compensation from Government, with the danger of putting some partners out of business. The amount of compensation also appears excessive.</p>
OS effect on market for reuse of its PSI	<p>The issue of derived data has been cited as a significant hindrance to the market for reuse of this information.</p> <p>There is a general perception that OS' tight grasp on permitting use and reuse of its data has allowed Google to take a large share of the GI market.</p>

Area of concern OS pricing	<p>Views expressed by stakeholders</p> <p>OS's pricing was broadly unchanged between 2000-2010. Then, around 2010, prices were reduced significantly.</p> <p>The prices of certain products have been 'exorbitant' (eg Polygons).</p> <p>The price of AddressBase reflects a high-price, low-volume strategy that appears out of kilter with other objectives, eg maximising reuse.</p> <p>Greater (cheaper) access to OS data would have facilitated the development of a diverse range of mapping products, benefiting consumers, though this would still have been limited to a great extent by the presence of Google.</p> <p>Users still struggle with OS pricing schemes, which are generally based on a notion of market value that can be subjective and can be used by OS to influence competition if it takes into account the impact of its pricing on products that are potential substitutes for OS products, instead of basing prices on cost.</p> <p>There is a lot of scope for discrimination in OS's licensing and pricing, with individual licences being issued.</p>
Supply of data to users	<p>The format and quality of data provided by OS is a problem. For example, around 2006-07 OS moved from supplying certain products in shape files to an alternative, 'academic' format (GML). The decision seemed to be arbitrary and not taking into account the needs of the industry.</p> <p>Conversion to using the new format is very difficult for SMEs.</p>

Appendix B: Case studies

Ordnance Survey

Overview

1. Ordnance Survey ('OS') is Great Britain's national mapping agency, and has been for over two centuries. It operates as a trading fund, in accordance with the Ordnance Survey Trading Fund Order 1999. Since 2011, OS has been an executive agency within BIS.
2. Given its role, virtually all of OS's revenue is PSI-related. In revenue terms it is one of the largest PSIHs, with total revenue of around £116m at the time of the CUIPI study and of around £144m in 2013/14. These figures reflect the fundamental importance of geospatial information and the value that it generates for both the private and the public sector. Geospatial information is important not only in its own right, as the base of a range of useful applications, but also because location is often the only common identifier that can feasibly be used when merging or linking datasets.
3. OS has experienced substantial change since the CUIPI study was published. The following sections will focus on the most salient points that are relevant to our evaluation, while a more detailed timeline of developments affecting OS is provided in Table 15.

Role of PSIH and description of information held

4. OS's framework document of 2004 sets out its role as follows:

'Ordnance Survey is the national mapping agency of Great Britain, collecting, maintaining, managing and distributing the definitive record of the features of the natural, built and planned environment, the definitive record of official boundaries and the record of such other national geographic datasets as required by government and the private sector.'¹³⁸
5. Both private and public sector bodies use and rely upon OS's portfolio of products, including printed maps – which today generate only a small proportion of revenue – and digital products such as height and imagery products, maps showing boundaries and postcode units, landform maps, address-based products and the flagship MasterMap product suite.

¹³⁸ OS, 2004, 'Framework Document', p 11, <http://www.ordnancesurvey.co.uk/docs/governance/ordnance-survey-framework-document.pdf>

6. OS employs various resource-intensive techniques, such as field surveys and aerial photography, in order to collect information. The depth of detail in some products is remarkable – for example, MasterMap contains around 450 million geographic features and is continually being updated to reflect changes. Therefore, OS incurs substantial costs in order to collect and maintain information. By contrast, the marginal costs of accommodating additional users (eg through providing an additional licence) are very low.
7. OS faces competition from third parties, including from licensees who are re-selling OS products or re-using OS data, as well as firms offering mapping products based on data collected wholly independently. Google is perhaps the most notable alternative mapping provider and, though Google Maps existed at the time of CUPI, its prominence has certainly grown since then. However, OS retains a unique position in terms of the breadth and depth of geographic information it holds, such that it could still be said to have a monopoly position in relation to the data incorporated in its most valuable products (eg MasterMap and AddressBase) for which there are no close substitutes available.
8. OS's activities essentially involve the creation and maintenance of datasets and the licensing of products based on these, both to the public and private sector.

Public activities

9. The Public Sector Mapping Agreement (PSMA) has been in place since 2011 and covers the vast majority of OS products, making them available for free at the point of use to over 3400 public sector member organisations in England and Wales (the One Scotland Mapping Agreement serves the same function for the public sector in Scotland). The PSMA was awarded to OS as a non-competed, ten-year contract, replacing the previous Pan Government Agreement (PGA), the Mapping Services Agreement (MSA), the Greater London Agreement (GLA) and the NHS collective purchasing agreement. Under the PGA, which covered around 100 public bodies, contracts had been tendered competitively and on shorter timeframes.
10. OS is also involved in a joint venture with the Local Government Association – GeoPlace LLP, which has produced a national address gazetteer, branded as AddressBase and available from 2011. OS licenses the AddressBase suite of products to the private and public sectors (the latter being covered by the PSMA).
11. OS receives payments from central Government for the PSMA and also to finance the release of certain products for free as OS OpenData. In 2013/14,

revenue from the public sector (including revenue from bilateral contracts with public sector customers outside of the PSMA and the OpenData agreement) accounted for around 62% of total revenue; PSMA and OpenData revenue alone made up 57% of OS revenue.¹³⁹ In contrast, OS had historically tended to receive around 50-55% of its revenue from the private sector prior to the commencement of OpenData and PSMA contracts (in 2010 and 2011 respectively).

Commercial activities

12. In 2013/2014, B2B and B2C streams accounted for approximately 31% and 6% of total revenue respectively.
13. Within the B2B segment, OS receives revenue from direct licensing, where information is provided for use within the customer's business only, and from partner licensing. According to the type of licence held, OS partners are able to re-sell OS products and/or provide products and services that employ OS products as an input.
14. In 2013/14, partner licensing accounted for around half of B2B revenue. In absolute terms, revenue from partner licences has remained between £20m and £30m per year since the CUPi study was published, though notably there was a drop from £26.3m to £20.6m from 2009/10 to 2010/11, coinciding with the introduction of OS OpenData.
15. Within the B2C segment, OS Leisure Limited is a separate subsidiary that operates OS's online retail offering. It was set up in 2009/10 as part of OS's new business strategy and its revenue was £1.9m in 2013/14.
16. Among OS's other subsidiaries and joint ventures, Ordnance Survey International LLP seeks to offer OS's expertise to government agencies in other countries. Its revenue was £1.3m in 2013/14. In 2013/14, OS became the majority owner of Astigan Limited, 'which is tasked with finding innovative methods to reduce long-term data collection costs'¹⁴⁰.

Information made available for re-use

17. OS has a wide portfolio of products that it makes available for re-use, which is in a perpetual state of change over time, as new products are introduced and

¹³⁹ The percentage of total revenue from public sector central licence agreements (excluding Open Data, which is not a data licence) in 2009/10 was 38%, whereas in 2013/14 it was 42%. These figures are not strictly comparable, as at the same time the usage and rights have extended between those dates.

¹⁴⁰ OS, 2014, 'Annual Report 2013/14', p 28, <http://www.ordnancesurvey.co.uk/about/governance/annual-report.html>. OS also has an interest in Point X Limited, a joint venture with Landmark Information Group developing and marketing a 'points of interest' database for Great Britain, which predates the CUPi report.

old ones withdrawn. Among the most significant changes are the introduction of AddressBase, which brought together data from OS and other sources to form a single definitive source of address data, and OS OpenData, which did not widen the range of information made available for re-use as such¹⁴¹, but rather made some OS information available for free commercial re-use on unrestricted terms for the first time.

18. In 2013, OS released the new OS Terrain products. OS Terrain 50 is available as part of OS OpenData and OS Terrain 5 is charged for. These improved, higher-quality height products replace the previous Land-Form PROFILE products, and have reportedly led to complaints from third parties in relation to pricing and their inclusion in OS's public task.¹⁴²
19. OS also expanded the range of information made available for non-commercial re-use with the launch of OS OpenSpace in 2007, which allowed developers to experiment with OS data, eg to create 'mash-ups', subject to daily limits on the number of times that data could be accessed or looked-up. In subsequent years, OpenSpace was developed to enhance the service, and a commercial version is available as OpenSpace Pro.

Compliance with CUPI principles

Changes since CUPI

20. After the OFT CUPI study was published, raising serious concerns about OS's conduct, OS was the subject of scrutiny from the Communities and Local Government Committee. The Committee published its Fifth report in February 2008, which revisited a 2002 inquiry into OS. The Committee's report reiterated many of the OFT's concerns. In addition, while the OFT's study focused on commercial use, the Committee found that licence complexity and inflexibility was also a concern within the public sector.
21. Regarding licence terms, the Government response to the Committee's report admitted that 'Ordnance Survey has acknowledged the need to improve matters for three years, but the numerous reviews have delayed the implementation of planned improvements, as for this length of time the future of Ordnance Survey has been under consideration'.¹⁴³ It stated that a detailed review of licensing would take place after the conclusion of on-going discussions with the OFT. The Government response also stated that further

¹⁴¹ However, we have been told by OS that OS Vector Map District, which is the most used Open Data dataset, was developed specifically to meet the needs of open user markets.

¹⁴² See eg <http://www.independent.co.uk/travel/news-and-advice/has-the-ordnance-survey-lost-its-moral-compass-9891770.html>

¹⁴³ Select Committee on Communities and Local Government Committee, 2008, 'First Special Report', paragraph 10, <http://www.publications.parliament.uk/pa/cm200708/cmselect/cmcomloc/516/51604.htm>

work would be carried out on the unrefined/refined split and on possible accounting separation.

22. In April 2008, OS's action plan for improving access to Crown copyright information stated that its work in response to CUPI would overlap substantially with the Government's analysis as part of the announced Trading Fund Assessment ('TFA'), such that any final decisions would require the close involvement of HMT and ShEx. It also stated that a detailed review of licensing could only take place once this work was complete.
23. The action plan mentioned workshops that were to be held, jointly with the OFT, with some previously anonymous stakeholders who had expressed dissatisfaction with OS as part of the CUPI study. These workshops were held in May 2008. Documents provided by OS indicate that, in 2008, it made (or was in the process of making) positive changes to improve access to its information. These were case-specific changes.
24. Changes to the overall approach were made as a result of the new OS business strategy, which was announced in April 2009 together with some high-level findings from the TFA. Aspects of the strategy are clearly relevant to the CUPI study, particularly the goals to promote innovation for social and economic benefits – including by reducing minimum royalty charges and improving the opportunities available to developers – and to increase the use of OS data generally – including by widening the role for partners to distribute OS data and by conducting the long-awaited comprehensive review of the licensing and pricing model.
25. The fruits of the licensing review could be seen as the new licensing and pricing framework was rolled out from late 2010 (some four years after the publication of the CUPI report, which had called for concerns at OS to be addressed without delay). The new framework introduced a new distribution contract, which allowed partners greater flexibility to re-sell a wider range of OS products. In particular, OS told us that it views the introduction of distribution possibilities for large-scale data as a significant step change, which flowed from CUPI and increased the scope for licensees to compete with OS. For other uses of OS data, the licensing framework was streamlined such that the number of contracts was greatly reduced: five new definitions of specific uses replaced nineteen existing ones, resulting in a simpler model with less strict restrictions on use in any one contract. Three other contracts remained in place, including the derived data contract. Contracts were also made shorter and less legalistic in general. At least partly as a result of the amalgamation of licences (but possibly also due to licensees switching to OS

OpenData), the number of partner licences issued by OS fell significantly, from over 500 in 2009/10 to less than 400 in 2013/14.¹⁴⁴

26. The derived data issue had been (and continues to be) contentious and changes made by OS at that time included the provision of new guidance on derived data. This guidance states that if OS licensees use OS topographical datasets to infer the position of new features, any new data created that can be used independently of the OS dataset is subject to a non-exclusive, royalty-free perpetual licence – ie OS will not claim intellectual property rights. All licences were updated to include terms covering such ‘free to use data’. Finally, within the context of the PSMA, a derived data exemption process was created for PSMA members.
27. Evidence from stakeholders and PSI users indicates that the changes in OS’s licensing model are undoubtedly a positive and significant step. Evidence from OS is also suggestive of improved engagement with partners as its licensing model and overall strategy continues to evolve. However, these changes appear to represent only a partial response to the competition concerns highlighted by the OFT and the recommendations it made, while it is also notable that they occurred only after a substantial delay associated with on-going discussions amongst various parties.
28. Another key change, related to CUPPI recommendations on pricing and on maximising re-use, was the introduction of OS OpenData. Again, there is a broad consensus that this has been a positive change (though it has certain contentious aspects, as discussed in the analysis of residual problems below). OS OpenData was announced in November 2009 and, following consultation, released from April 2010. Evidence provided by OS shows that it generally fulfils several thousand download orders per month for OS OpenData products and an independent study has estimated that OS OpenData will deliver a net increase of £13m - £28.5m in GDP in 2016.¹⁴⁵
29. OS OpenData was not, however, a change that was brought about primarily by CUPPI. The decision to release some OS data for free was made in late 2009, whereas only a few months earlier OS had confirmed that the user-pays model would remain in place. Anecdotal evidence from multiple sources

¹⁴⁴ The information provided by OS did not allow an assessment of how the number of licensees evolved over this time period.

¹⁴⁵ ConsultingWhere and ACIL Tasman, 2013, ‘Assessing the value of OS OpenData to the economy of Great Britain – Synopsis’, paragraph 4.1.1, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/207692/bis-13-950-assessing-value-of-opendata-to-economy-of-great-britain.pdf

supports the view that OS OpenData was primarily the product of an independent political decision.

Separation of public sector and commercial activities

30. Following the publication of the OFT CUIPI report, discussions took place between OS and the OFT. Documents provided by OS show that it acknowledged that an upstream/downstream¹⁴⁶ split was central to the OFT's recommendations, and that several meetings took place between the OFT and OS in 2007 with a view to, among other things, agreeing on which OS products should be considered 'upstream', though there were differing opinions about how the distinction should apply in practice. These documents also show that OS – together with other stakeholders – considered the implementation of cost allocation between its upstream and downstream activities.
31. In April 2008, OS's action plan for improving access to Crown copyright information indicated that progress had slowed since 2007, which may have been related to staffing issues at the OFT, though OS had undertaken significant work to examine the feasibility and the practicalities of an accounting split. The plan, at that time, was that proposals for an upstream/downstream split would be prepared and published by OS, subject to consultation with private and public sector stakeholders.
32. Eventually, discussions related to a potential accounting separation were subsumed into the ShEx-led TFA. The OFT was represented on the TFA's steering group, though evidence suggests that it had relatively little influence on proceedings and on the outcome of the TFA. Ultimately, despite the previous work that had been undertaken, the new OS business strategy in 2009 did not announce changes to implement an upstream/downstream split and corresponding cost allocation, in spite of accounting separation having been identified as good practice in the TFA. Reflecting this, the OFT expressed the view in April 2009 that 'the proposals made as a result of the OFT study will not be fully acted upon' and therefore 'they will not adequately address [the OFT's] concerns'.¹⁴⁷

¹⁴⁶ These terms were used in preference to unrefined/refined, which OS considered would not work in the context of its production and maintenance process.

¹⁴⁷ OFT, 2009, 'Minutes of the OFT Board meeting of 1 April 2009', <http://webarchive.nationalarchives.gov.uk/20140402142426/http://www.of.gov.uk/about/structure/board/minutes/>

33. Some form of accounting separation was again mooted as part of the consultation that followed the announcement of free OS data.¹⁴⁸ This change was not subsequently adopted. According to OPSI, ‘Ordnance Survey has opted not to split its activity into upstream and downstream components or a similar configuration aimed at differentiating between non-competed and competed areas of activity, taking the position that it is an indivisible data business’.¹⁴⁹

Definition of public task

34. A statement of OS’s public task was first produced in 2007,¹⁵⁰ during the course of the Communities and Local Government Committee inquiry. The document described OS’s public task in broad terms; the public task required, among other things, the collection and maintenance of datasets containing detailed topography, address data, transport networks, terrain and height data, boundary information and geographical names. Hence, the statement did not provide a clear guide to distinguishing between OS’s public task and other activities. By OS’s own admission, ‘a clear distinction cannot be drawn between Ordnance Survey’s ‘public’ and ‘commercial’ operations’¹⁵¹. The lack of a clear distinction was attributed to the requirements of the trading fund model, which in OS’s view mean that ‘[t]he distinction between its public service and commercial activity is therefore inherently blurred’.¹⁵²
35. Annex 1A to the 2007 public task statement listed the datasets and products required to fulfil the public task. The list included the majority of OS’s products at that time, including particularly valuable ones such as MasterMap. It is notable that the list included Address Point as falling within the public task. Only a few months earlier, APPSI had published its report reviewing a complaint from Intelligent Addressing in relation to the supply of this product. APPSI found at that time that there was no definitive statement of OS’s public task and that, in APPSI’s interpretation, Address Point fell outside of the public task, such that the Re-use Regulations did not apply and the relevant aspects of the complaint therefore fell outside of APPSI’s remit.

¹⁴⁸ CLG, 2009, ‘Policy options for geographic information from Ordnance Survey’, paragraph 8.6, <http://webarchive.nationalarchives.gov.uk/20120919132719/http://www.communities.gov.uk/documents/corporate/pdf/1411177.pdf>

¹⁴⁹ OPSI, 2011, ‘Ordnance Survey IFTS Report’, paragraph 38, <http://tna.europarchive.org/20121003145924/http://nationalarchives.gov.uk/documents/information-management/ordnance-survey-ifts-report.pdf>

¹⁵⁰ OS, 2008, Written evidence to Communities and Local Government Committee, <http://www.publications.parliament.uk/pa/cm200708/cmselect/cmcomloc/268/268we21.htm>

¹⁵¹ OS, 2008, Supplementary memorandum to the Communities and Local Government Committee, <http://www.publications.parliament.uk/pa/cm200708/cmselect/cmcomloc/268/268we20.htm>

¹⁵² Ibid.

36. The public task definition included making information available as widely as possible and in accessible forms, for wider benefit. It also indicated that public task products would, 'overall, be priced to cover the costs associated with the datasets and products, including investment costs, a share of corporate costs and the agreed rate of return', though '[a]t the level of individual products and datasets, differential pricing is used'. On the other hand, non-public task products would be priced 'at market rates', and '[w]here the product uses Public Task data, it will access that data at the same price and on the same terms as any third party'.¹⁵³ The latter point would seem to relate to some of the key concerns raised by CUPI, though the lack of accounting separation means that compliance could not be verified.
37. In 2009, as part of the new business strategy announcement, a commitment was made to review OS's public task, through a formal 12-week public consultation and in line with the TFA principles. A new document was intended to be in place by the end of 2009. However, to date there has not been a public consultation to define OS's public task; instead the OS public task was set in consultation with the ShEx and OPSI.
38. A public task statement was published on the OS website for the first time in 2012.¹⁵⁴ It was similar in nature to the 2007 version, though much more concise and without a statement of the datasets and products that are produced as part of the public task. The information about pricing policies from the 2007 statement was not included in this version, with the new statement simply stating that products were either made available for free as OS OpenData or in accordance with OS's standard licensing model.
39. The statement was revised, in October 2013, to include a list of datasets and products produced as part of delivering the public task and with other relatively minor changes. The current statement¹⁵⁵ of the public task can be summarised as follows:
- to maintain and develop the underlying physical infrastructure which is needed to support mapping applications;
 - to create, maintain and provide governance for the National Geographic Database (NGD), consisting of geographic information datasets covering all of Great Britain to a consistent specification;

¹⁵³ Ibid.

¹⁵⁴ OS, 2012, 'Ordnance Survey's Public Task', <http://web.archive.org/web/20121002131541/http://www.ordnancesurvey.co.uk/oswebsite/about-us/public-task/index.html>

¹⁵⁵ OS, 2014, 'Our public task', <http://www.ordnancesurvey.co.uk/about/governance/public-task.html>

- to make information widely available to all types of users and for all types of purposes; and
 - to provide advice and support to the UK Government on all aspects of survey, mapping and geographic information.
40. The statement sets out the types of information that OS collects to deliver the public task. In summary, these are:
- the topography and topology of landscape features;
 - descriptive annotations and distinctive names/postal numbers;
 - the connectivity of water and communication networks;
 - the alignment of administrative and electoral boundaries; and
 - the extent and classification of certain types of land cover and use.
41. In the current statement, all but three of OS's products are included as falling within the public task.¹⁵⁶
42. Stakeholder engagement has revealed significant dissatisfaction with the OS's public task definition. The root cause is that the perceived all-encompassing notion of OS's public task conflicts with many stakeholders' view of what its role 'should' be. Moreover, the fact that the public task statement designates OS as the official advisor to Government on geographic information matters also adds to perceptions of OS benefiting from unfair advantages in comparison to its (generally smaller) private sector competitors. Despite the TFA findings that supported clearly and independently defined public tasks, with input from customers and stakeholders, OS and the Shareholder Executive appear to have autonomy in determining the boundaries of OS's public task.

Complaints and complaint handling

43. According to annual reports, the volume of complaints made to OS in any year represents less than 1% of the total number of interactions. The annual number of complaints has tended to be around 700-800, with no clear trend since the CUPPI study. Around 90% of complaints appear to be from end-users, while among complaints made by re-users or potential re-users, the

¹⁵⁶ The three are, at the time of writing, OS MasterMap Imagery Layer, Points of Interest and NLPG (the latter is due to be withdrawn).

majority concern issues such as functionality and technical aspects, which are not directly related to the CUIPI study.

44. To date, OPSI has published four reports investigating complaints against OS – two in 2006 and two in 2014. In total, OPSI has received 19 complaints against OS,¹⁵⁷ of various kinds, compared to 33 complaints against other PSIHs. Based on the information provided, these complaints do not suggest any clear trend from which one can draw conclusions about OS's conduct and potential improvements.
45. Evidence from stakeholders also shows that complaints have been pursued through other avenues, as well as through OPSI or through OS directly. This includes complaints to other bodies, such as the European Commission,¹⁵⁸ as well as complaints made through more informal channels, eg letters to Ministers.

Residual problems

46. While there has been positive change at OS since the CUIPI report was published, there remains considerable dissatisfaction with OS's conduct among some stakeholders, including concerns that some of OS's behaviour might limit the capacity for competition in downstream markets. The more substantive measures recommended by the OFT, such as accounting separation and cost allocation in line with the OFT's notion of contestability, have not been adopted. The consequences of this are that some of the concerns identified by the OFT persist, and that at the same time it may not be straightforward to assess allegations of anti-competitive behaviour, eg because the lack of accounting separation does not allow a comparison of internal transfer prices and prices charged to third parties.

Derived data

47. Stakeholders frequently mentioned derived data as a key issue, both in relation to the private sector and public sector. An illustration of the issue and of potential concerns is provided by a recent complaint related to the Land Registry's INSPIRE Index Polygons dataset, which was investigated by OPSI and subsequently by APPSI. Briefly, the complaint concerned the licence terms and pricing for commercial use, which are determined by OS because the dataset contains an element of OS intellectual property – though the

¹⁵⁷ Including two about GeoPlace.

¹⁵⁸ An example from the public domain is a recent state aid complaint to the European Commission, see eg <http://www.independent.co.uk/travel/news-and-advice/has-the-ordnance-survey-lost-its-moral-compass-9891770.html>

extent of this is strongly disputed by the complainant. OPSI upheld aspects of the complaint and found that ‘the crux of the issue’¹⁵⁹ was the potential for ‘substitution’ between the Polygons dataset and OS’s own MasterMap. The complaint was later investigated by APPSI, as the complainant objected to OPSI’s handling of the complaint. In APPSI’s view¹⁶⁰, even when the extent of use of OS data in producing derived data is minimal, OS ‘sees itself able to set charges based on their qualitative assessment of likely revenues and possible product substitution’ and effectively has a ‘power of veto’.¹⁶¹

48. At the time of writing, it is understood that OS has reduced the relevant charges but the dispute has yet to be resolved to both parties’ satisfaction. OPSI provided confirmation on 20 October 2014 that OS had met all recommendations from OPSI’s report, and 77M has since entered into the agreement (the terms of which have since been further amended. The case highlights the complexities of the derived data issue. Owing to technical complexity, the various ways in which datasets can be combined or used inferentially, and to the lack of an established, objective standard, it can very difficult to establish the extent of third party IPR in a product, or in the terminology used in this case, to establish the extent of substitution between an OS dataset and a derived dataset. While the complexities appears to be largely inherent to the issue of derived data and IPR, rather than being of OS’s deliberate own making, the potential impact that licensing terms and pricing can have on competition is particularly significant given the importance of merging and linking of datasets where geographic information is often crucial as an ‘identifier’.
49. Derived data under the PSMA has also been a contentious issue even in cases where OS does not impose charges. Under the PSMA there is a licence exemption procedure whereby PSIHS can request to release information that is to some extent derived from OS data, on OS OpenData terms (ie free of charge). This process has been criticised as burdensome and confusing, for example in the case where a large number of LAs must each make similar requests individually¹⁶², though ultimately over 90% of requests are being approved by OS.¹⁶³ OS does offer a streamlined procedure for

¹⁵⁹ OPSI, 2014, ‘77M and Ordnance Survey’, paragraph 44,

<http://www.nationalarchives.gov.uk/documents/information-management/ordnance-survey-complaint-report.pdf>

¹⁶⁰ OS has told us that APPSI sought no input from OS as part of its investigation and report, and consequently based its analysis on the incorrect royalty table.

¹⁶¹ APPSI, 2014, ‘Review board of APPSI report’, paragraph 7.2.2,

<http://www.nationalarchives.gov.uk/documents/information-management/appsi-review-board-report-77m-september-2014.pdf>

¹⁶² See eg ODUG, 2013, ‘Ordnance Survey licensing restrictions on public sector data use and re-use’,

http://data.gov.uk/sites/default/files/20130717%20OS%20Open%20Data%20Licensing_10.pdf

¹⁶³ OS has noted that the PSMA in any event contains extremely broad rights, enabling all derived data to be shared throughout the public sector without restriction, and made available to third parties on simple end user licence or contractor terms, or without complex licensing where made available for viewing.

selected datasets, but this still requires each individual PSIH to provide a statement of compliance.¹⁶⁴ While it seems that OS has made some strides to try and improve the situation, this example suggests that licensing complexity remains a residual problem in some contexts. Though in this example it directly affects PSIHs that use OS data under the PSMA, it may also have implications for commercial use, as third parties might then use datasets that are released by PSIHs with an exemption from OS commercially.

The trading fund model and other policy objectives

50. The view that OS's trading fund status is problematic is fairly pervasive across many stakeholders. The APPSI report expresses the view that 'the root cause of many complaints lies in the business model under which OS has to operate'.¹⁶⁵ A number of stakeholders have expressed views that are broadly consistent with APPSI's.
51. It is not within the scope of this evaluation to assess the relative merits of the trading fund model. However, we note that there are residual problems that are closely related to the trading fund model, particularly in connection with the objective of releasing valuable information as open data.
52. Though the release of OS OpenData has been broadly welcomed, it does create a dichotomy between the low/medium-value products that OS now releases for free and the high-value products that it continues to charge for. An example of the latter is AddressBase, the range of products licensed by OS and produced from GeoPlace's national address gazetteer. AddressBase would seem to be a clear example of 'core reference data', a term often used in connection with the Open Data agenda, eg in the Autumn Statement 2011 and the Shakespeare review. The Open Data ethos would seem to support the release of such data for free, as argued by Shakespeare, in order to maximise access and re-use, but inevitably this is incompatible with the trading fund model. In the case of AddressBase, some complainants have claimed that OS has pursued a high-price, low-volume strategy, which would directly oppose objectives of maximising re-use.

Concerns related to Government payments

53. Clearly, the release of PSI that is costly to collect without charge has significant revenue implications for PSIHs. This is especially relevant for trading funds, which must meet a requirement to generate sufficient revenue

¹⁶⁴ See eg <https://www.ordnancesurvey.co.uk/about/governance/foi/questions/2012/0044.html>

¹⁶⁵ APPSI, 2014, 'Review board of APPSI report', paragraph 7.2.3, <http://www.nationalarchives.gov.uk/documents/information-management/appsi-review-board-report-77m-september-2014.pdf>

to cover costs and deliver a return on investment. In the case of OS, Government provides payments to compensate OS for the IPR and the continued maintenance and provision of the OpenData service. The arrangement adds to perceptions that OS receives unfair advantages through its status as the national mapping agency, compared to its private sector competitors. While OS is compensated for lost revenue, private sector firms are not compensated for any revenue lost as a result of (a) competing products being undermined by the release of free OS products, or (b) reduced volumes of re-sales of OS products.

54. Together with the OpenData contract, the introduction of the non-competed PSMA has meant that OS now receives the majority of its revenue through central Government payments. Some stakeholders believe that OS is being significantly over-compensated through the amount of payment it receives. The grounds for such suspicion are clear – OS registered record levels of revenue in 2010/11 and in 2011/2012, respectively the years in which the OpenData and PSMA contracts began.¹⁶⁶ If claims of over-compensation are valid, there is a concern that OS may then be able to cross-subsidise activities where it offers products or services to the private sector in competition with third parties. We note that the OFT made specific recommendations intending to mitigate any potential for cross-subsidisation, but that these have not been implemented.

Public task and expansion into 'value-added' areas

55. As noted earlier, there is significant dissatisfaction around OS's public task, particularly from stakeholders who feel that its definition is too broad and fails to reflect a notion of its 'natural' remit, but are unable to feed their views into the definition of the public task. This poses problems for the application of the Re-use Regulations (in the sense that the public task limits what counts as re-use), but it is also relevant to the aforementioned cross-subsidisation concerns.
56. At the time of the CUPPI study, a key concern was that OS could move into new value-added markets and prevent its partners from being able to compete fairly. There is evidence to suggest that this is a residual problem today, at least in some areas; the resistance from partners that led OS to abandon its plans for a GeoIntelligence unit – overtly focussing on value-added solutions – shows the sensitivity of the issue.

¹⁶⁶ Total revenue increased by around £15 from 2009/10 to 2010/11, and by around £12 from 2010/11 to 2011/12.

57. The GeoPlace joint venture between OS and local Government provides an example of residual concerns. The joint venture was created with the purpose of bringing ‘together address information from Ordnance Survey and local authorities to create a ‘national address gazetteer database’’.¹⁶⁷ Some stakeholders have expressed concern that its activities since its establishment suggest a willingness to expand into value-added areas that go significantly beyond the purpose for which the joint venture was purportedly established, and on the basis of which the OFT conducted its merger assessment of the joint venture.¹⁶⁸ In particular, the legally-binding Data Co-operation Agreement that exists between LAs and GeoPlace includes a clause that can be activated to make GeoPlace the ‘sole agent’ to receive street naming and numbering information, but also ‘formal notifications associated with streets’ (including street works notifications).¹⁶⁹ Such exclusive access to PSI, if triggered, would be a clear example of the competition concerns identified by the OFT.

Potential impacts on innovation

58. The potential for detriment caused by an expansion of activities is something that has been acknowledged by Government in the past. In the December 2009 consultation document on policy options for OS, DCLG stated that ‘the public task is likely to be taken as a signal to the market by government of what it sees as the role of an organisation. It therefore may act as a signal to the market about where or where not it should invest’.¹⁷⁰ It went on to recognise that ‘a wider definition of the public task ... may deter private sector investment in adjacent markets’. Some stakeholders feel that OS has faced limited incentives to innovate itself, a problem that may recently have been exacerbated by the long-term OpenData and PSMA contracts that guarantee a substantial revenue stream. According to these views, the UK’s geographic information industry as a whole will suffer in the long term as a result.

Disputes and enforcement issues

59. Views and evidence gathered as part of our evaluation indicate that ‘visible’ complaints, such as those investigated and published by OPSI, do not represent the full extent of enduring dissatisfaction among stakeholders. A

¹⁶⁷ GeoPlace, 2011, ‘Government initiative for national addressing’, <http://www.geoplace.co.uk/geoplace/document.htm?targ=834>

¹⁶⁸ For example, GeoPlace is carrying out data analysis in relation to street works performance. (GeoPlace, ‘Department for Transport Supports HAUC and GeoPlace Initiative to Monitor Street Works Performance’, 2013, <http://www.geoplace.co.uk/geoplace/document.htm?targ=1195>)

¹⁶⁹ GeoPlace, 2012, ‘Data Co-operation Agreement’, clause 6.1.6, <http://www.iahub.net/docs/1331198217149.pdf>

¹⁷⁰ CLG, 2009, ‘Policy options for geographic information from Ordnance Survey’, paragraph 4.28, <http://webarchive.nationalarchives.gov.uk/20120919132719/http://www.communities.gov.uk/documents/corporate/pdf/1411177.pdf>

number of factors may limit the extent to which dissatisfied third parties are incentivised actively to pursue resolution to disputes through official channels. It appears that some disputes have not been resolved to the satisfaction of all parties, which in itself could indicate a residual problem. Barriers to an effective resolution of disputes may include:

- the perceived asymmetry of resources between OS and potential complainants, which are often SMEs – this acts as a disincentive to complain, where potential complainants feel unable to commit the required resources to take a complaint forward and/or feel unlikely to be able to secure a successful outcome as a result of this asymmetry;
- the perceived asymmetry of resources and technical expertise between OS and OPSI – this acts as a disincentive to complain if potential complainants anticipate a low likelihood of a successful outcome;
- the role of OS as official adviser to Government on all matters related to geographic information (as stated in its public task), which again can create a perception of asymmetry and of low likelihood of success in any complaints;
- the perceived lack of transparency about OS’s activities, eg where information is considered commercially-sensitive, which can make it challenging for complainants to make their case;
- the complex nature of the relationship that partners have with OS, whereby they may rely on OS for their continued survival in the marketplace – a fear of potential ‘retaliation’ may therefore act as a disincentive against complaining in a specific case; and
- the perception of the Re-use Regulations and IFTS as relatively light-touch regimes.

Detailed timeline of developments

60. To provide further background, Table 15 below provides a detailed timeline of major developments specifically affecting OS, before and after the CUPPI study was published.

Table 15: Timeline of developments at OS

Date	Event	Description
April 1999	Ordnance Survey Trading Fund Order	OS attained trading fund status. The National Interest Mapping Services Agreement was established to contribute to the costs of particular OS activities that were in the national interest but would not otherwise have been commercially viable.

June 2002	Transport, Local Government and the Regions Committee – Tenth report	This inquiry was conducted as OS was being considered for Government-owned PLC status. The Committee opposed the idea. Its report identified concerns related to OS's charging policy, insufficient transparency, unfulfilled potential for greater use of OS data across the public sector and a clear need to define OS's public task and commercial activities, with fair transfer pricing to ensure a level playing field between OS's commercial arm and any competing providers. In its November 2002 response, the Government resisted any changes to charging and argued that in practice there was no clear line that can be drawn between OS's national interest and commercial activities.
April 2003	First IFTS accreditation	HMSO's opinion was that OS had made 'great progress in putting in place decision-making, culture and administrative structures which all encourage the delivery of its commitment to Information Fair Trading'. HMSO noted 'the emphasis put on achieving simplicity, equity and transparency across the whole organisation'. OS had acknowledged that there was more to be done in respect of fair trading and was working on this – eg '[t]he whole licensing and pricing structure for partners is being reviewed, with a view to making it clearer, fairer and more comprehensible'.
2004	Licensed partner model	Migrating from revenue-share agreements used in the past, OS moved to a new licensing model based on specific-use contracts for OS partners.
April 2005	Formation of the Geographic Information Panel	The Panel, chaired by the Director General and Chief Executive of OS, was created to 'to maximise the value to the public, government, UK business and industry of geographic information'.
May 2005	Consultation on future of NIMSA	DCLG ran a consultation on the future of the NIMSA, which had funded OS to carry out activities that were in the national interest, but not commercially viable. The outcome was that the NIMSA came to an end in December 2006, as it was 'appropriate for some of the services which have been supported by NIMSA, to be procured directly by those public sector bodies who require them, either individually or collaboratively'.
October 2005	IFTs report	OPSI found that OS performed 'reasonably well' in delivering its IFTS commitment and had made progress since the last verification. However, OS's reputation was 'not uniformly favourable' – it was sometimes seen as 'obstructive and slow' and there was 'some substance to this impression'. Moreover, '[m]any staff highlighted the tensions' between meeting IFTS requirements and requirements from OS's trading fund status. OPSI recommended that OS re-assess its understanding of the Openness and Transparency objectives and 'whether its current culture and practices are effective in delivering them'. Specifically, regarding licence terms, OPSI recommended that efforts to improve these should continue. Concerns included licence complexity, restrictive terms, the imbalance between responsibilities and liabilities of contracting parties and other asymmetries in relation to termination or increasing fees.
July 2006	OPSI investigation of Intelligent Addressing complaint	The complaint related to OS's AddressPoint product. In summary, the complainant (IA) alleged that OS used opaque, complex and unfair licensing terms, protracted negotiations and excessive charging in order to restrict competition in downstream markets. OPSI found in favour of IA on several points and made recommendations, including addressing the inadequate licence terms offered to IA, and more broadly to review policies relating to derived data, licence terms and charging with a view to ensuring fairness.
December 2006	<i>The OFT CUPi study</i>	The CUPi study made a range of broad recommendations that aimed to increase availability of PSI, encourage downstream competition for the supply of refined products through fair licence terms and charges, and strengthen the regulatory framework and guidance. However, it also made a specific recommendation that concerns about practices at OS should be addressed as a matter of urgency. The study considered several PSIHs as case studies and OS stood out for various reasons. It was the largest PSIH based on revenue from information trading, previous attempts to influence its behaviour had met with resistance, and there was evidence of serious problems being experienced by re-users: <ul style="list-style-type: none"> • OS's licence exception policy (which allowed OS to refuse to grant applications for any type of re-use that was comparable to a product that OS was marketing or intending to market) was a concern, given OS's monopoly status. NB: this point was also made in the OPSI investigation of the IA complaint and a recommendation was made to address the licensing exception to make it consistent with IFTS principles • in general, licence terms did not encourage re-use and were considered to be excessively complex • OS provided limited access to unrefined information and concentrated on producing refined products itself, limiting the opportunities for business to re-use OS data and compete in downstream markets • OS did not separate upstream and downstream operations at all. As a result, it was difficult to ascertain whether it was providing unrefined information to third parties on the same terms as it did to its internal downstream operations • specific use contracts gave OS excessive rights to terminate agreements, which may have acted as an incentive against licensees raising complaints The Government response, in June 2007, stated that on-going discussions were taking place between the OFT and OS to resolve these issues.
December 2006	OPSI investigation of Census	The complaint concerned Output Areas (OAs) – boundaries created to output Census data that contain a 'limited amount' of OS intellectual property and therefore required a licence from OS for any re-use. The complaint alleged that royalty charging was excessively complex

	Distributors complaint	and onerous, and that terms were complex, disproportionate and not transparent. OPSI did not uphold the complaint, though it made some suggestions for making licences simpler and ensuring that clauses were appropriate.
March 2007	Intelligent Addressing progress report	OPSI found that OS had satisfied the recommendations made, including through the removal of the license exception policy. NB: the (recommended) reviews of OS's policies were not published.
April 2007	APPSI review of IA complaint	APPSI argued that OS's public task had not been stated definitively and was therefore a matter of interpretation. In APPSI's view, the supply of AddressPoint fell outside of OS's public task; therefore it was excluded from the Re-use Regulations and the recommendations made by OPSI under the Re-use Regulations therefore fell outside of APPSI's remit.
April 2007	INSPIRE Directive	The Directive (published in 2007 and transposed into UK law in 2009) aimed to establish a common infrastructure for spatial information in the European Union in order to enhance environmental policy. It requires Member States to publish data relating to specified environmental themes in a certain format and imposes rules regarding metadata, data interoperability and sharing.
June 2007	Power of Information review	Government commissioned this review shortly after CUIPI was published. One relevant recommendation, accepted by Government, was that trading funds should introduce licences for free non-commercial re-use, to promote innovation. Related to this, it was recommended that OS should launch its OpenSpace project by December 2007 (also accepted). Another recommendation, which was only partially accepted, was that Government should apply marginal cost pricing for trading funds' 'raw' information, except where published evidence (later provided by the Cambridge study) does not show that it is socially beneficial to do so.
July 2007	OS public task statement	The first statement of OS's public task was approved by Iain Wright MP and presented as evidence to the CLG Committee, which had raised concerns about the lack of clarity around OS's public task (see February 2008 below). It included a requirement to 'maximise both the accessibility of, and the broader benefits arising from the use of the data'.
November 2007	IFTS report	OPSI noted progress since the last report, though some licence documents remained opaque and some processes remained cumbersome for users. The previous IFTS report had recommended a review of licences to enhance clarity. However, OS had been reluctant to review its licensing until potential implications of the CUIPI study became clear, so this work had been on hold. Hence, some similar recommendations were made again. OS was assessed as 'high risk', to be re-verified in 1-2 years. OS was not re-verified until 2011, which may have been due to the on-going work and discussions that took place in the years that followed the CUIPI study, and anticipation of changes subsequent to these discussions. The launch of OS OpenSpace (which allowed for some free non-commercial use of OS data, subject to limitations) was mentioned as a positive development.
February 2008	Communities and Local Government Committee – Fifth report	The Committee opted to re-visit the 2002 inquiry, in part responding to an assertion from DCLG that there was no distinction between public service and commercial activity for OS. ¹⁷¹ In written evidence, both OS and the OFT confirmed that on-going dialogue was taking place regarding the CUIPI recommendations, though the OFT stated that no agreement had been reached over any changes. OS stated that it expected some changes to its business model as a result of the CUIPI recommendations; however, it disagreed with the OFT's narrow notion of a public task corresponding to the 'monopoly element in the geographic information market' and argued that the public task may include some 'refined' information activities. Any distinction between activities would inevitably remain blurred as a consequence of OS's trading fund status and in any case the possible benefits from accounting separation are unproven. The Committee found that the perception that OS used restrictive licences for commercial advantage was 'widely shared' and that within the public sector, licensing complexity and inflexibility was a concern. Despite the removal of a licence exception policy from OS website, the OFT stated in its evidence that it had not seen 'any specific change of policy in determining to whom OS will grant a licence'. Moreover, though defining public task and commercial activities for OS was challenging, the Committee argued that the distinction should still be made as clearly as possible. The Committee accepted that OS was working to simplify licences and remove restrictions as a result of CUIPI recommendations, though apart from the removal of the licence exception policy, no tangible examples were provided. The Government response of April 2008 stated that 'Ordnance Survey has been discussing possible accounting separation with OFT and OPSI, and expects to consult with private sector stakeholders on this issue in due course, in order to develop an acceptable way forward'. This consultation appears to have then taken place informally, through user workshops. Regarding simplicity and appropriateness of licence terms, it was stated that 'Ordnance Survey has acknowledged the need to improve matters for three years, but the numerous reviews have delayed the implementation of planned improvements, as for this length of time the future of Ordnance Survey has been under consideration'. Discussions were still on-going with the OFT and only once these were concluded would OS 'undertake a detailed review of its licences'. OPSI were also involved in some joint working arrangements and '[a]s a first stage' private and public customers would be invited to attend a workshop by May 2008. 'A particular area of focus has been the split between refined and unrefined activity'.

¹⁷¹ This statement was made in the context of the decision to end the NIMSA

February 2008	'Cambridge study' of Models of Public Sector Information Provision via Trading Funds	The study, commissioned as a response to CUIPI, compared marginal cost and average cost pricing policies for trading funds' 'unrefined' information. For OS, the products considered were 'large scale topographic' (including MasterMap) and 'transport network products', which at the time accounted for around 60% of OS's revenue. The study found that moving to marginal cost pricing for these OS products would bring annual gross benefits of £168m to the economy with a net cost to Government of £12m, such that the net benefit to society would be of £156m.
April 2008	Budget 2008	In the Budget report, the Government acknowledged the CUIPI and Cambridge studies and stated that it would proceed with a Trading Fund Assessment (TFA). In June 2008, the terms of reference for this Assessment stated that it would review governance and business plans of trading funds including OS, make clear recommendations for the future of the trading fund model or constitution of individual trading funds, and aim to produce definitive information pricing and access policies.
Spring 2008	OS workshops in response to CUIPI	It was reported in OPSI's annual PSI report that OS, in collaboration with OFT and OPSI, held a series of workshops with re-users and potential complainants as a response to concerns raised by the CUIPI study. OPSI reported that the outcome was a published action plan and timeline, with a summary of issues identified and steps that would be taken to address each concern. The outcomes of the workshops were not made publicly available.
August 2008	Appointment of OS's first Non-Executive Chair	Sir Rob Margetts was appointed to lead OS's Strategy Board. He would report to Shareholder Executive. The Director General and Chief Executive would remain in place and continue to report directly to the Minister.
November 2008	UK Location Strategy	The Strategy was published and subsequently the Location Council was established to implement this strategy and the INSPIRE Directive (together known as the 'Location Programme'). Coinciding with this, the Geographic Information Panel was dissolved. The Location Strategy emphasised the importance of geographic information and aimed to maximise its value to all parts of society and the economy. To achieve this, actions included ensuring an understanding of what information is available, avoiding duplication, adopting a common infrastructure to facilitate sharing and using common reference data.
February 2009	Power of Information Task Force – final report	The POI task force, established in response to the 2007 POI review, argued that OS needed 'urgent reform', with 'freeing up' data as a priority. Reform should include, at a minimum: <ul style="list-style-type: none"> • making some basic data sets available for free for any re-use, • offering other products for free for 'modest levels of use', • offering straightforward licensing conditions for voluntary and community organisations, • simplified and standardised licences across the board – for 'all but the heaviest levels of use', standard terms and conditions and no link to intended use or business model • creation of a freely-available, definitive address and postcode database Government accepted the recommendations about OS 'in principle' and it was indicated that the new business strategy (see April 2009 below) could succeed in implementing most of them, while the recommendation for a single address database would be looked at separately in the coming months.
February 2009	Pan Government Agreement	A new PGA (and One Scotland agreement) was signed and came into force from April 2009, providing 'almost 100 national bodies with access to core geographic information at an affordable price and under consistent licensing terms'. A four-year contract was awarded through a competitive tender process to OS, and two products were also supplied by its partner Landmark in conjunction with Dotted Eyes.
April 2009	Operational Efficiency Programme – Final report	The report included key principles identified by the TFA (the full Assessment was never published). These included making information easily available (where possible at low or marginal cost), clear and transparent pricing with separate accounting for different parts of the business, simple and transparent licences to facilitate re-use, and clearly and independently defined public tasks, with input from customers and stakeholders. The report also announced a new business strategy for OS and an enhanced role for OPSI.
April 2009	New business strategy for OS	The new strategy was the outcome of a process initiated by CUIPI and taken forward by Government through further work (POI, Cambridge study and TFA). It was based on a Government decision that the user-pays model continued to be the most effective, but that changes were needed in five key areas. <ul style="list-style-type: none"> • Promote innovation for social and economic benefits – by enhancing OS OpenSpace, improving developer programme, reducing royalty charges and creating a developer community (GeoVation). • Increase the use of OS data – by increasing the role for distribution by commercial partners and comprehensively reviewing the licensing framework, including shortening and simplifying documents, introducing a transparent pricing structure (the plan for rollout of the new framework was due to be completed by October 2009). • Support sharing across the public sector – through the Pan-Government and One Scotland agreements • Increasing efficiency – by committing to achieving cost reductions

		<ul style="list-style-type: none"> Enhancing value by creating an innovative trading entity (Ordnance Survey Limited, eventually launching the B2C Ordnance Survey Leisure portal in March 2011) <p>The strategy also announced a commitment to review OS's public task, through a formal 12-week public consultation and in line with the TFA principles. A new document was intended to be in place by the end of 2009. To date, there has been no such consultation to define OS's public task.</p> <p>OPSI and OFT would monitor OS's progress, particularly after six months and after twelve months. It does not appear that any formal statements of OS's progress were produced at those times.</p>
June 2009	Making public data public	Gordon Brown told the House of Commons that there would be a drive to open up Government data, aided by Sir Tim Berners-Lee and Professor Nigel Shadbolt.
August 2009	OS business strategy – update on progress	This update from OS stated that implementation was 'work in progress'. It dealt with some responses to the strategy. In particular, regarding the issue of 'free data', it was stated that the TFA had considered this matter 'fully' and that Government had decided on the user-pays model. 'It is recognised that this debate still continues in some areas but the Government has made its decision'.
November 2009	Announcement that OS would open up data	The PM Gordon Brown announced on 17 November 2009 that OS would open up access to data. The plans included free re-use – including commercially – of data relating to electoral and local authority boundaries, postcode areas and mid-scale mapping.
December 2009	DCLG consultation on Policy options for geographic information for Ordnance Survey	<p>Following the prime-ministerial announcement, DCLG soon published a consultation to gather views on its implementation. As well as views on the datasets to be released for free, the consultation questions covered issues such as the broader pricing model for OS, PSI regulation, OS's public task and governance, and the idea of a single National Address Register.</p> <p>The Government response in March 2010 identified the package of datasets that would be released as OS OpenData from April 2010, including various small and mid-scale products, boundary information and postcode units. OS now receives £20m annually from Government as a compensation for revenue loss due to OS OpenData. Responding to concerns about barriers to sharing across the public sector, Government also announced a centrally funded Public Sector Mapping Agreement (PSMA), to come into force in April 2011. This non-competed, ten-year contract replaced the competed, shorter term PGA contract.</p> <p>Regarding OS's public task, Government also announced that it would be considered in the light of related work being carried out by The National Archives. Finally, the Government asked OS to take on the technical delivery role of services required to fulfil INSPIRE obligations.</p>
April 2010	OS OpenData	Launch of OS OpenData, following the DCLG consultation.
October 2010	New pricing and licensing model	<p>The announcement 'marks the culmination of work that began when Ordnance Survey launched its new Business Strategy in April 2009'. As such, it can be seen as having its origins in the CUPi study, insofar as that strategy was a response to the study.</p> <p>New licences would become available from November 2010, with a second phase of the launch taking place in April 2011.</p> <p>Changes include:</p> <ul style="list-style-type: none"> new terms allowing partners to licence and re-sell almost all OS products, greater flexibility in onward licensing of OS products, with the choice of how much to include fewer, broader licences for commercial activities, with the amalgamation of terms from twelve existing contracts into three new ones, with more concise and less legalistic language improved terms covering warranties and liabilities new guidance on derived data, to clarify in which instances OS would claim intellectual property rights, and the launch of new 'Free to Use Data' terms covering those cases when OS would not claim IPR
December 2010	GeoPlace LLP	An agreement was announced in December 2010 to create a joint venture between OS and the Local Government Group that would create 'a single 'address book' for England and Wales. GeoPlace LLP acquired Intelligent Addressing Ltd (approved by the OFT in February 2011) and it would create a National Address Gazetteer Database by combining the local gazetteer datasets previously managed by IA with OS and Royal Mail datasets.
2010-2011	OS annual report 2010-2011	OS registered a record trading revenue of £127.7m, an increase of £15.2m from the previous financial year. This coincided with £20m of new revenue as a result of OS OpenData revenue recognition policy. Since this revenue was classified as public sector revenue, public sector revenue exceeded private sector revenue in this financial year, whereas in previous years the majority of revenue had come from the private sector.
April 2011	PSMA	As announced previously in the DCLG consultation on policy options, the PSMA came into force.
July 2011	IFTS report	OPSI's evaluation of OS was broadly positive and it was assessed as 'medium risk'. OPSI noted progress made by OS in simplifying its licensing, encouraging re-use, reducing the number of specific use contracts, clarifying its position on derived data. It noted that complaints to OPSI about OS were 'on a downward curve'. It clarified that OS had 'opted not to split its activity into upstream and downstream components or a similar configuration aimed at differentiating between non-competed and competed areas of activity, taking the position that it is an indivisible data business'.

		Nevertheless, OPSI made a number of suggestions for further work, including monitoring the impact of recent changes, making further specific improvements and publishing a public task statement once OPSI's work on the subject was complete (OPSI's guide to drawing up a public task was published shortly afterwards).
July 2011	OS becomes part of BIS	Ministerial responsibility for OS passed from DCLG to BIS, as a step towards the planned establishment of a Public Data Corporation (PDC, see below).
August 2011	Public Data Corporation consultation	The PDC was intended to bring together data-rich organisations to secure benefits, such as a more consistent approach towards access to PSI, promoting greater access and increasing efficiency. Government published this consultation in order to gather views to inform decisions about the membership and structure of the PDC.
November 2011	Public Data Group	The 2011 Autumn Statement announced the formation of the Data Strategy Board (DSB) and the Public Data Group (PDG), the latter of which would bring together OS, the Met Office, Companies House and the Land Registry, replacing the previous proposals for a PDC. In March 2012, the terms of reference for the PDG set out objectives that included delivering efficiencies, sharing data, skills and best practice, and working with the DSB to support the commissioning of Open Data.
2011-2012	OS annual report 2011-2012	For the second successive year, OS registered record revenue. Trading revenue was £138.9m, up by £11.2m from the previous year. This coincided with the introduction of the PSMA, which accounted for £55m of revenue in that year. The share of public sector revenue again increased compared to the previous year.
July 2012	Public task statement online	A statement of OS's public task was published on its website. This was then revised in late 2013.
April 2014	OPSI investigation of 77M complaint	The complaint concerned HM Land Registry's Inspire Index Polygon dataset ('the Polygons'), which is alleged to contain some amount of OS intellectual property (though this amount is strongly disputed by the complainant). Commercial re-use of the Polygons required a licence from OS, who believed that licence terms should reflect the substitutability between the Polygons and OS's own MasterMap Topography Layer. OPSI found that this substitutability had not been demonstrated to a sufficient extent, as the basis for licence terms and pricing, and therefore upheld complaints by 77M relating to licence terms and pricing. OPSI's recommendations included clarification of the coincidence/substitution between the two datasets in question, changes to pricing and licence terms, simplification of the licence and of the application process. In a July 2014 progress report, OPSI found that the majority of recommended actions had been completed. OPSI later confirmed in October 2014 that all recommendations had been met.
June 2014	OPSI investigation of Weekend 365 complaint	The complainant wished to reproduce OS maps on its merchandise. The complaint relates to the minimum annual royalty of £1000 from the third year of the licence. It was not upheld under the Re-use Regulations but was partially upheld under IFTS. OPSI recommended that OS 'should introduce conditions and pricing to encourage small businesses to re-use its information, for example by reviewing turnover levels and/or reducing minimum royalty thresholds', with a deadline of the next IFTS re-verification.
September 2014	APPSI review of 77M complaint	77M complained to APPSI about OPSI's handling of its complaint against OS. APPSI's findings included the following: <ul style="list-style-type: none"> • OPSI allowed OS to make changes to its report (notably, the use of the term 'substitution') that arguably went beyond corrections for factual accuracy. OS's emphasis on 'substitution' as the basis for price-setting is said to make clear that OS charging reflects 'an assessment of a new product's market value and its ability to 'cannibalise' OS revenue. • While OPSI found that OS had met the recommendation to put an adequate pricing regime in place, APSSI could not see how this had been met (specifically, the requirement that it be no more expensive than OS MasterMap). • It was not clear whether OS had provided a fair, objective analysis of coincidence/substitution. Nevertheless, APPSI welcomed 'greater recent flexibility' to OS pricing for the Polygons as a 'significant step forward' APSSI also made a number of additional observations, including that: <ul style="list-style-type: none"> • This case is an example of 'failure of the process', with different agendas and complex rules to implement different regimes ultimately hindering re-use of PSI. • OS data is highly important and often needs to be used to link other datasets together. Even when the extent of use of OS data in producing derived data is minimal, OS 'sees itself able to set charges based on their qualitative assessment of likely revenues and possible product substitution' and effectively has a 'power of veto'. • The above means that SMEs (and even other public bodies) find dealing with OS complex and confusing. Rules, governance and regulation procedures for OS should be spelled out in a single document and '[t]he guidance on the present OS web site is inadequate'. • Not all concerns about OS are of its own making – 'the reality is that the root cause of many complaints lies in the business model under which OS has to operate' (the trading fund model).

Met Office

Overview

61. The Met Office is a trading fund and has been an executive agency within BIS since 2011. It provides the National Meteorological Service, and the majority of its revenue is earned from the public sector.
62. The Met Office is the largest PSIH in income terms. Total revenue in the year 2013/14 was £208m, of which £175m came from Government. By comparison, at the time of the CUPi study, the Met Office earned £170m of which £143m was coming from Government.

Role of PSIH and description of information held

63. The Met Office collects climate observations and uses its significant expertise, both in the form of experienced staff and forecasting models built and adjusted over time, to generate weather forecasts. It aims to be recognised as the best weather and climate service in the world through verifying the outputs of its models and benchmarking against peers and competitors on quality of service and value for money. The Met Office ranks highly amongst other National Meteorological Services as one of the world's most accurate forecasters.
64. The Met Office is one of the two World Area Forecast Centres. It has several international research partnerships with, amongst others, NERC, WMO, Meteorologist institutt, the Australian Government's Bureau of Meteorology, and academic institutions internationally. The Met Office is also a member of ECOMET, an Economic Interest Group composed of more than 20 members across Europe, which 'envisages the widest availability of basic meteorological data for re-use applications'.¹⁷²

¹⁷² ECOMET was created at the end of 1995 and is an Economic Interest Grouping under Belgian law located in Brussels. After having confirmed its intention to do so in September 1997, the European Commission (Directorate-General Competition) approved the ECOMET arrangements in October 1999. The national meteorological services have developed in ECOMET a legal framework to establish equal competition conditions for the public as well as for the private sector. For more information see ECOMET website: <http://www.ecomet.eu>.

Public activities

65. The public activities of the Met Office comprise what is necessary in order to meet the requirements of the Public Weather Service (PWS) and duties set out in the Civil Contingencies Act 2004.¹⁷³ The PWS comprises:
- delivering the national infrastructure and capability required to generate all weather services;
 - the routine provision of public forecasts, reaching the majority of population daily and the provision of National Severe Weather Warning Service (NSWWS), in order to enable damage prevention;
 - the provision of Civil Contingency Services, supporting Resilience Community, protecting life, property and infrastructure; and
 - the provision of Data Services, covering the international exchange of weather data, including Open Data.
66. To fulfil its role, it engages in a diverse range of measurement and modelling activities such as ocean modelling, carbon cycle, climate attribution, observations, run off/river models, land surface, air quality, multi-model ensembles, regional scale decadal prediction, modelling capability and atmospheric chemistry.¹⁷⁴
67. The five-year contract between the Met Office and the Public Weather Service Customer Group (PWSCG) specifies the budget the Met Office will have for providing the PWS and also contains output requirements (degree of quality, accuracy and parameters that the Met Office should provide). The budget that the Met Office receives from the PWSCG is calculated as the income required to cover the Met Office's costs of producing the PWS outputs less the income that the Met Office is expected to generate from the sales/licensing of PSI.
68. In addition to its public task activities, the Met Office has Government contracts for the provision/exchange of services with other public bodies, such as the MOD, DEFRA, Environment Agency. Some of these Government contracts are competed. According to the Met Office's annual report 'the majority of its non-competed services relate to the Met Office's public task, its role as the UK's National Meteorological Service and its support of the

¹⁷³ 'Civil Contingencies Act 2004 states that Category 1 responders must have regard to the Met Office's duty to warn the public and provide information and advice, if an emergency is likely to occur or has taken place.' See Met Office, 'Together Make a difference with a coordinated response to emergency management'

http://www.metoffice.gov.uk/media/pdf/a/o/11_0194_PWS_Together_Brochure1.pdf

¹⁷⁴ See for example, Met Office, 2011, 'Met Office Science Strategy 2010-2015: Implementation Plan' http://www.metoffice.gov.uk/media/pdf/5/2/MOSAC_16.1.pdf

Ministry of Defence and other Government departments in respect of weather and climate-related services'.¹⁷⁵ The price for non-competed public sector contracts is determined with reference to its target ROCE of 3.5%.

Commercial activities

69. The Met Office provides services to commercial entities such as delivering crucial inputs to utilities, the aviation sector or insurance companies, and producing news weather forecasts etc.
70. Commercial revenue has accounted for around 16% of the Met Office's total income in the last four reported years.¹⁷⁶ This is a slight increase from the time of the CUPi study (12%). Commercial revenue comprises revenue from licensing data for re-use and from the provision of value-added services.

Table 16: Met Office revenue

Financial year	Revenue All Government business £'000	Revenue Defence £'000	Revenue Government service £'000	Revenue PWS £'000	Revenue Commercial £'000
2004/05	145,210	33,581	36,385	73,541	20,370
2010/11	163,470	34,275	35,723	93,472	32,239
2011/12	163,286	33,069	34,104	96,113	32,470
2012/13	171,760	31,601	36,207	103,952	32,725
2013/14	175,453	32,259	36,815	106,379	32,256

Source: Met Office Annual Reports; <http://www.metoffice.gov.uk/learning/library/publications/corporate>

71. The Met Office has provided us with information on the share of Government contracts it has won for a number of years, which indicate that it secures on average 70% of the public sector contracts for which it tenders. Competed contracts cover grants (eg research bids) where more than one applicant may be successful. The corresponding figure for commercial contracts is unavailable.

Information made available for re-use

72. The information held by the Met Office includes both historic weather observations and the detailed outputs of its forecasting models. Historical weather observations are collected by meteorological services across the world and shared in order to improve forecasting models. The Met Office gathers observations (eg through satellite, aviation, ships and a series of weather stations) and obtains observations from other meteorological services (eg data obtained from German DWD).

¹⁷⁵ Met Office, 2014, 'Annual Report and Accounts 2013/14'.
<http://www.metoffice.gov.uk/learning/library/publications/corporate>

¹⁷⁶ Average over the last four years (2010/11-2013/14).

73. The Met Office considers these historical observations together with the outputs of its Numerical Weather Prediction models as its 'unrefined' information within the meaning of the term set out in the OFT CUPi report. By contrast, the interpretation of forecast model outputs, risk analysis and communication services are considered to be refined information.
74. All of the Met Office's data that can be used for commercial purposes is available under the ECOMET licence and listed in ECOMET's catalogue. Each member of ECOMET is a potential provider of the same data offered by the Met Office, and the ECOMET members sell data under a commonly agreed methodology for the pricing of data.¹⁷⁷ Such data is primarily used by competing weather service providers both in the UK and overseas and includes Numerical Weather Prediction Model data, Observation Station data, Rainfall Radar data, Lightning strike detection data and Satellite data.
75. The only significant changes to the wholesale catalogue over the last 3 years are as follows:
- removal of historic observational data – this was removed as the method of extraction was deemed to 'add value' to the data by decoding the synoptic bulletin and presenting it in an Excel spreadsheet;
 - upgrade of selected NWP model data – North Atlantic and Europe Model data replaced by Euro4 Model at 12km and 4km resolution; addition of UK Variable Resolution model data; and
 - in 2014 access to sub-hourly observations was added to the catalogue.
76. In terms of historic data, the Met Office provides access to the last 24 hours' land and marine observations through its DataPoint API. Data covering a longer period of time at a specified granularity and including a specified range of parameters is available under licence dependent on planned use.¹⁷⁸ 'The Met Office has a Statutory [sic] duty under the Public Records Act to make available the data and information it has created in the performance of its public duties after 30 years (moving to 20 years). Met Office is currently a Place of Physical deposit for all the paper records' and is 'working with the

¹⁷⁷ See ECOMET website price units: <http://www.ecomet.eu/ecomet-catalogue/ecomet-licenses/ecomet-price-units>

¹⁷⁸ Note: ODUG has been pushing the Met Office towards releasing their historic observation data as Open Data, but the interviewee at the Met Office has explained that making that data available is not easy (see <http://data.gov.uk/benefits-of-releasing-historical-ukmo-observation-data>). The Met Office itself does not have that data readily available, the data is used in models and then tested for quality control purposes and is not kept in a way that can be simply released. Therefore, there are significant costs associated with making this data available, while assuring that the service provided is resilient. The current plan is not to make that data available under OGL terms as ODUG had suggested. The Met Office is committed to making further historic data available in future, but not for free.

National Archive to become a place of deposit for electronic data¹⁷⁹ as Open Data.

77. The Met Office has informed us that demand for data has remained largely static between 2004 and 2013. As new, or updated, data has become available in the past 12 months, very small increases in uptake have been noticed. This has principally been around Euro4 model data as the resolution has improved markedly and three new customers have signed up. The Met Office also informed us that higher resolution model data has meant a significant increase in the data volumes, which creates a challenge for the Met Office to make the data available via the wholesale data channel.
78. According to the Met Office, the pricing of wholesale data agreed through ECOMET has remained relatively static. Met Office wholesale pricing distinguishes between End Users, Service Providers and Broadcasters, and between different types of value-added services based on the use of particular types of data and products.
79. The Met Office continues to provide trial licences, both for public and private re-users. These licences have a small cost reflecting the cost incurred by the Met Office to extract the information requested by the users.
80. The Met Office responded readily to the Open Data movement and has been recognised as one of the largest suppliers of PSI to data.gov.uk.¹⁸⁰ At the time of the launch of data.gov.uk and related Open Data initiatives, the Met Office launched a 'weather widget' that could be embedded in third party websites . as well as creating a developmental area of its website – 'Invent' – offering data downloads. The Met Office PWS weather forecast and real-time observation datasets are provided under OGL terms.
81. Subsequently, DataPoint was launched in November 2011, replacing 'Invent' to provide Open Data under the OGL on the Met Office website. DataPoint replaced the 'Invent' section on the Met Office website that previously provided access to Met Office data to developers and other users. DataPoint had new features (such as map layers, marine observations etc.) added from July 2012 onwards. DataPoint currently has 21 products listed, 16 of which are accessed through an API. The available products are a mix of Forecast and Observations, Text, data or map-based information.

¹⁷⁹ Met Office, 2014, Open Data Policy, Annex B,
http://www.metoffice.gov.uk/media/pdf/3/5/OpenDataPolicy_MetOffice_v1.0.pdf

¹⁸⁰ Deloitte, 2013, 'Market Assessment of Public Sector Information' published by DBIS, p 60,
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/198905/bis-13-743-market-assessment-of-public-sector-information.pdf

82. Usage of the Met Office's DataPoint API has increased substantially over time, from a couple of hundred of users initially to seven thousand subscribers (although only about half are actively using the data), without any advertising or promotion. Over the same two-year period, the number of requests for Met Office data has increased from 10,000 per month to 25 million requests in August 2014 (though noting that requests vary widely in terms of the volume of data required). Of these requests approximately 80% came from the UK, followed by Ireland (around 10%) and the US. Overall, users from around 150 countries request and obtain data from the Met Office. We have been told by the Met Office that, based on a survey undertaken in August 2013, around 20% of DataPoint users received income related to the data they obtained.
83. Currently, the main challenge facing the Met Office regarding making PSI available for re-use is the vast volume of data, which is increasing as the resolution of its forecast models is increased (eg previously the model was distinguishing 40 atmosphere levels but is now looking at 70 levels) and the models are run more frequently. Over time, the cost reductions that might have resulted from improvements in technology have been offset by the costs of increased volume of data being gathered and stored. Within 18 months, the Met Office is expecting substantially to upgrade its computing facilities.

Compliance with CUIPI principles

Changes since CUIPI

84. The Met Office received a positive assessment as part of the OFT CUIPI study. Amongst other things, it adopted a good upstream/downstream split in terms of operations and of cost allocation and ensured that it charged the same price for the catalogue of weather data that it was charging to its own weather forecasting operations to competing businesses.
85. The Met Office – like other trading funds – was required to provide an action plan in response to the CUIPI study.
86. The action plan largely emphasised existing commitments, such as those arising through the IFTS, as well as its areas of good practice highlighted by the CUIPI study itself. Specifically, Met Office proposed the following actions:
- 'Continue our commitment to the provision of essential meteorological data free of charge to the world meteorological community under WMO Resolution 40;
 - Liaise with Government stakeholders to more clearly define its 'public task' and its 'public sector information';

- Explore ways in which we can refine and extend the internal arrangements for which we have been commended by OFT and OPSI;
 - Continue with our commitment to the Information Fair Trader Scheme and respond to OPSI's most recent recommendations in that regard by 30 April 2008;
 - Work towards compliance with the European INSPIRE Directive in the most efficient and cost effective way available to us;
 - Take account of ideas proposed in the action plans submitted to HMT by other trading funds where possible.¹⁸¹
87. Evidence collated in this report suggests that the Met Office's actions since the CUPI study have been in accordance with its action plan:
- the Met Office continues to separate upstream and downstream operations and ensures that the data available to its commercial arm is made available to external re-users on the same terms. Where any concerns are expressed in relation to this the Met Office deals with this fairly and transparently (see complaints section below).
 - the Met Office has continued to illustrate its commitment to the IFTS and all of the recommendations made in the 2008 IFTS were marked as complete in the 2010 re-verification (see IFTS recommendations below).
 - through the contract with the PWSCG, the Met Office would appear to have a tightly bounded and clearly defined public task (see public task section below).
88. Separately, the Met Office has undergone three IFTS re-verifications since the completion of the CUPI study. The re-verification reports confirm that the organisation continued to follow good practice following the OFT CUPI study.
- In the 2007 re-verification report, OPSI highlighted a number of good practice examples. OPSI did state that the Met Office could improve the fairness of its licences by reviewing its policy of giving account managers discretion to discount within a percentage banding based on length of contract and considering a standard discounting scale. It was also recommended that the Met Office should look at defining the criteria for trial period extensions more precisely. All of these recommendations were marked as 'complete' in the 2010 IFTS re-verification.

¹⁸¹ Met Office, 2008, Met Office action plan concerning access to information.

- In the 2010 re-verification OPSI made recommendations that were aimed at meeting the Government's Open Data agenda in terms of asking the Met Office to review whether data that it made available in static formats could be made more readily re-usable and whether more material could be made available under the OGL, and to update OPSI on progress in enhancing Invent as well as increasing the number of datasets listed on data.gov.uk.
- In the 2013 re-verification, OPSI highlighted the fact that the Met Office had met all the recommendations made in its previous re-verification and even exceeded some of these. Significant quantities of data that was previously only available in static formats were by then provided dynamically in machine-readable format. The Met Office had begun to offer a large amount of data under the OGL. DataPoint API had been introduced as the primary way of showcasing data and making it available in a suitable format for developers, thus enabling, amongst other things, the creation of innovative third-party applications using real-time weather information. OPSI's recommendations were limited to a suggestion that Met Office should survey the DataPoint user community to assess the impact of requiring registration and applying a fair usage policy, advise OPSI of any licensing changes and consider the appointment of an Open Data advocate to the PWSCG.

89. Overall, the Met Office has made significant amounts of its data free for download and has improved the way in which its data can be accessed. In the view of the Met Office, the main developments were largely driven by the Government's Open Data Agenda and Cabinet Office's Open Data Strategy and OPSI's recommendations.

Separation of public sector and commercial activities

90. As outlined above, at the time of the CUPPI study, the OFT noted that the Met Office had in place a good upstream/downstream split in terms of operations and of cost allocation, with downstream prices reflecting upstream costs, and it offered the same price to commercial re-users as it did to its own downstream operations. This continues to be the case today.

Definition of public task

91. The Met Office's public task is defined by the outputs required under the PWS including those defined in the Civil Contingencies Act 2004. Through the contract with the PWSCG, the Met Office would appear to have a tightly circumscribed and clearly defined public task. We are not aware of any

concerns that have been raised by actual or potential re-users about the definition or scope of the public task.

92. However, OPSI noted in the 2010 IFTS re-verification that the Met Office's income from wholly commercial activities was less than its income from public funds (comprising PWS funding and other Government business), and that not all of its Government business was competed. OPSI made a high level recommendation under the Transparency principle that the Met Office should conduct a review of its public task in consultation with the PWSCG and consider whether some of the publicly-funded activities and/or data outputs that sat outside the Met Office's public task at the time should be brought within it. This recommendation was re-iterated in the 2013 IFTS re-verification.
93. We understand that such a review is currently underway and is expected to be completed soon.

Complaints and complaint handling

94. No formal complaints against the Met Office have been lodged with OPSI. We have asked the Met Office for information about its internal complaints process, and have been provided with information about two complaints over the last few years:
- One complaint, made in December 2013, related to Met Office Commercial having access to model data that is not available on the Met Office Wholesale catalogue. The Met Office recognised the issued and made the necessary files available as quickly as possible, and the complaint was closed in April 2014.
 - A second complaint made in September 2014 related to Met Office Commercial having access to model data in a specific format that is not available on the Met Office Wholesale catalogue. We have been informed that this issue is related to the Met Office's decision to move towards providing only a single standard format for both internal and external data. We understand that the complainant has been informed and that the Met Office is awaiting a response at the time of writing.

Residual problems

95. Our evaluation indicates that there are unlikely to be substantial residual problems related to the Met Office.

96. One stakeholder informed us that it believes there to be certain 'elements' of the Met Office model that are not made available to re-users, even though they are presumably calculated and used internally. An example of this would be convectively available potential energy, which is commonplace, but not made available to purchase as part of the Met Office model. This type of data is available elsewhere (eg through the US Global Forecast System), but adding elements from data sourced elsewhere may increase complexity and costs for re-users. As such, this situation might constitute an advantage for Met Office when it competes with private sector firms in value-added markets.
97. Moreover, the pricing of Met Office data is a concern for this stakeholder. As a wholesale customer its charges have recently increased drastically (by around four times). The high prices are particularly problematic when the increased availability and quality of free weather information (eg from the Met Office and BBC websites) is reducing volumes of business for private sector firms that provide specialist, value-added services. The stakeholder believes that Met Office prices are based on 'some notion of turnover'; however it alleges that there are no visible tariffs, creating confusion for re-users.
98. Furthermore, the stakeholder expressed the view that the Met Office is not very forthcoming – eg compared to the European Centre for Medium-Range Weather Forecasts (ECMWF) – about changes made to its models, and their known errors or weaknesses.
99. This stakeholder has not formally complained to the Met Office regarding these issues and lacked an understanding of the role that OPSI might play in facilitating the resolution of any licensing or pricing problems. The issues have been the subject of discussions in the past, eg through a pressure group of weather companies that held meetings with the Met Office. However, the stakeholder does not believe that these discussions have produced concrete effects, which is a source of frustration.
100. As part of our assessment, we have reviewed the formal complaints made by wholesale customers to the Met Office (see paragraph 37 above). In our review of this information we have been informed that the Met Office has responded quickly to complaints in relation the availability of its data by making it available on the wholesale catalogue. Therefore, we are of the view that the Met Office is generally willing to provide data when there is a formal request for it and where it is feasible to do so.
101. Furthermore, we are aware that the Met Office's wholesale data is available under the ECOMET licence and is listed in ECOMET's catalogue. The pricing methodology for each unit of ECOMET Product is also explicitly set out on the

ECOMET website.¹⁸² There are volume discounts, independent of turnover, and discounts for small service providers that are based on turnover. The ECOMET website provides the calculation used for both these discounts.¹⁸³ Notwithstanding the issues raised by the aforementioned stakeholder, which have not been the subject of a fuller investigation, it appears that the Met Office largely follows good practice with regard to price transparency.

Coal Authority

Overview

102. The Coal Authority is a non-departmental public body sponsored by the Department of Energy and Climate Change (DECC). It owns, on behalf of the country, the vast majority of the coal in Great Britain and former coal mines, and manages the effects of past coal mining. It holds coal mining information for all parts of England, Scotland and Wales, and uses its mining information to report on the potential risks to property from former or current coal mining activities.
103. At the time of the CUPi study, the Coal Authority was the 6th largest PSIH in terms of the income gained from the supply of PSI, though its income of £9.3m was small relative to the income of the three largest PSIHs who together earned more than £240m from the supply of PSI.¹⁸⁴

Role of PSIH and description of information held

104. The Coal Authority's functions are set out in the Coal Industry Act 1994, specifically in Chapter 21.¹⁸⁵ The Coal Authority is responsible for licensing all of the coal mining that is taking place in Britain and manages the effects of past coal mining that are not the responsibility of licensed coal mine operators, including subsidence damage claims, It deals with mine water pollution and other mining legacy issues. The Coal Industry Act also creates specific duties with regard to making information held by the Coal Authority available to the public.
105. The Coal Authority holds coal mining information for all parts of England, Scotland and Wales including, amongst other things coal mining entry location

¹⁸² See ECOMET website price units: <http://www.ecomet.eu/ecomet-catalogue/ecomet-licenses/ecomet-price-units>

¹⁸³ See ECOMET website discounts: <http://www.ecomet.eu/ecomet-catalogue/ecomet-licenses/discounts> and <http://www.ecomet.eu/ecomet-catalogue/ecomet-licenses/discounts/ssp-discount>

¹⁸⁴ See Table 3.1, OFT, 2006, 'The commercial use of public information (CUPi)', p 21, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>. The Coal Authority was not the subject of one of the detailed case studies undertaken by the OFT; only a few references were made to it in OFT documents published as part of the CUPi study and no specific issues were identified.

¹⁸⁵ The Coal Industry Act 1994 c21; <http://origin-www.legislation.gov.uk/ukpga/1994/21/contents>

data (shafts and adits), data about past, current and future proposed coal mining operations (both opencast and underground), data on areas of potential shallow coal measures ie where coal is present within 30m of the surface whether records suggest it is worked or not, and records of coal mining subsidence events.

106. The information held by the Coal Authority stems from a vast collection of maps and paper records (eg abandonment plans), which has been transformed into digital mining datasets, which are updated with new information gathered through surveys and inspections. The datasets make up the Coal Authority’s Mining Database). There is no alternative source for this data.

Public activities and commercial activities

107. Historically, as the table below shows, the large majority of the Coal Authority’s operational income came from the provision of reports on the potential risk to property from former, current and future coal mining activities (so-called CON29M reports¹⁸⁶), which are required for property transactions in current or former coal mining areas. These reports are generated through an automated process from the data held in the Coal Authority’s mining database, and are largely delivered digitally.

Table 17: Coal Authority income from activities

Financial year	Total income from activities £m	Mining report income £m	Income from environmental technical services	Proportion of income from mining reports (%)
2005/06	12	10.6*	NA	88
2006/07	14.4	11.4	NA	79
2007/08	11.9	10.2	NA	86
2008/09	8.1	6.3	NA	78
2009/10	10.1	7.9	NA	78
2010/11	10.3	8.2	NA	80
2011/12	12.5	8.4	2.3	67
2012/13	12.9	8.4	3.2	65
2013/14	15.6	9.8	4.1	63

Source: Coal Authority annual reports and accounts (<https://www.gov.uk/government/collections/coal-authority-annual-reports-and-accounts>)

*The OFT CUI study reported PSI-related income to be £9.3m

108. Demand for CON29M reports is strongly dependent on transactional activity in the property sector, as reflected in the drop in revenue from their peak level in

¹⁸⁶ CON29M reports are one of a number of standard forms to document property searches made in the course of buying property, known as CON29 forms that have been developed by the Law Society. Whilst there is no statutory requirement to use these forms, they are the standard forms used to document property searches and therefore in practice must be used.

2006/07. From 2011/12 onwards, the Coal Authority has begun to provide environmental technical services for the feasibility, build and operation of metal mine water treatment schemes, creating another revenue opportunity.¹⁸⁷ Even so, mining reports still account for over 60% of the Coal Authority's income from activities.

109. While the provision of environmental technical services appears to be a clear public activity (with DEFRA funding the metal mine water programme in England and discussions about an extension of the service continuing with the Scottish Environment Protection Agency), the question whether the provision of CON29M reports constitutes part of the Coal Authority's public task or should be considered a commercial activity has proved contentious and is at the heart of the complaints lodged with OPSI about the Coal Authority's behaviour in relation to the licensing of bulk data extracts (see Table 18 and Table 19 below).

Information made available for re-use

110. The Coal Authority provides current coal mining data covering underground workings, mine entries, probable workings, underground roadways, licenced underground roadways, unlicensed opencast workings and licence areas in GIS format. Charges vary according to the size of the subject area, and scales of charges are available on request.
111. Historical coal mining data includes abandonment plans, which are available as digital or paper copies. Search charges and charges for prints/electronic formats are published on the Coal Authority's website. The Authority also provides access to the Coal Holdings Register and the Licence Register. We understand that the Coal Authority regards the abandonment plans it holds as its unrefined data. Copies of these plans can be purchased individually at a cost-recovery based price.
112. The Coal Authority also provides mining reports and reports covering additional information (namely so-called Ground Stability reports and Enviro All-in-One reports¹⁸⁸) for residential and non-residential properties or

¹⁸⁷ These new revenue opportunities arose from an extension of the Coal Authority's powers to deal with pollution from metal mines through the Energy Act 2011, which enabled the Coal Authority 'to deliver a non-coal mine water programme and deal with non-coal subsidence legacy issues.' The Coal Authority, 2012, 'Annual Report and Accounts 2011-12', p 3,

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/246966/0398.pdf

¹⁸⁸ Enviro All-in-One reports covering environmental, flood and coal risks have been developed jointly with GroundSure, a commercial company partnering with the Coal Authority (as well as other PSIHs and commercial information providers) which provides information to solicitors, homebuyers, businesses, consultants, surveyors and lenders to help them making more informed property-transaction decisions (see <http://www.groundsure.com/about-us/how-we-work>). These reports have been available since 2010 (see <http://www.groundsure.com/about-us/history>).

development sites. CON29M reports are provided also to re-sellers who include them in a broader conveyancing search service to prospective property buyers.

113. Amongst others, the Coal Authority makes available as Open Data on data.gov.uk information about the Coal Mining Reporting Area – a set of polygons indicating areas where coal mining reports are required in for property transactions.¹⁸⁹
114. Access to most of this information is available also through the interactive map viewer on the Coal Authority’s website, which includes the coal mining reporting area, monitoring points, and licence areas. For areas that require a mining report the interactive map viewer also includes a range of spatial datasets.¹⁹⁰ These datasets have been released in August 2012 and were initially available for non-commercial use only. However, we understand that the Coal Authority has removed this restriction in October 2014. The datasets are available under the Open Government Licence (OGL).
115. At the time of its IFTS accreditation the Coal Authority offered extracts from its mining database to third parties under three published licences. One of these licences was for commercial re-use and was intended for customers who were planning to develop value-added products.¹⁹¹ The other two were for internal business use and research. As OPSI noted at the time, this service was in its infancy and the income derived from it was minimal. One company – PinPoint Information Ltd (‘PinPoint’) – had sought to license the entirety of the Coal Authority’s databases and had submitted a request to this effect to the Coal Authority in August 2010. Following an initial dispute, which resulted in a complaint made to OPSI, the Authority entered into an agreement with Pinpoint in July 2012 for the provision of coal mining data, but suspended the provision of data after the agreement fell into dispute because of claims that PinPoint was proposing to develop a product that overlapped with the Authority’s public task, which was expressly prohibited under the terms of the agreement. The agreement remains in dispute, and PinPoint made a second complaint to OPSI. The details of this on-going dispute are provided in Table 19 below.

¹⁸⁹ Other open datasets published by the Coal Authority at the time of writing were: payments made by the Coal Authority, Licence Area and Monitoring Point data, and staff pay data (see <http://data.gov.uk/data/search?publisher=coal-authority&q=Coal+Authority>)

¹⁹⁰ These datasets are: mine entry; abandoned mines catalogue; development high risk area; surface coal resource areas; mine entry potential zone of influence; fissures and break-lines; mine gas sites; past surface hazard; surface mining (past and current); past shallow coal mine workings; probable shallow coal mine workings; and coal outcrops.

¹⁹¹ We understand that the Coal Authority also provides ‘data evaluation licences’, which potential users can use for a limited period for trial purposes without paying.

116. Data and plan sales are priced on a cost-recovery basis and are currently generating revenue of approximately £60,000 to £100,000 per annum. The datasets currently provided have fewer attributes than the full dataset used for the production of CON29M reports. We understand that the Coal Authority provides a small number of large datasets (but not on a national basis).
117. Its most recent corporate plan indicates that the Coal Authority has made a decision to generate more economic value from its data and information assets. In the words of the Coal Authority its mission is '[d]erive commercial value from our **unique information**, in-depth knowledge and expertise.'¹⁹² To do this it plans to develop its business in commercial information products and services by developing and selling **new** information products and services.¹⁹³ These changes are the results of the Coal Authority's own evolutionary process of disseminating more information and improving services to all customers and its decision to release economic value from its data and information assets. The changes are also in response to the Government's Open Data strategy. Though the Authority's plans are currently under discussion at Government departmental level, we understand that this implies that from April 2015 the Coal Authority will make available for use the full datasets (some of which have never been released before) that it currently uses for the production of CON29M reports. The Coal Authority also considers that for the environmental and water data related to mining, which are not made available for re-use at present, the move towards being more proactive in licensing will likely have a positive impact on markets related to groundwater waste disposal, energy consumption and property construction.

Compliance with CUPI principles

Changes since CUPI

118. The Coal Authority was the first organisation to seek IFTS accreditation under the revised IFTS in 2009. It received a satisfactory score in relation to the principles of Simplicity, Transparency and Fairness, and a good score in relation to the Challenge principle. Maximisation and Innovation were classified as development areas.¹⁹⁴ OPSI noted that: '[h]istorically, there have been a number of policy and technical reasons why the Coal Authority has been cautious in expanding the scope of the re-use of its information. The Coal Authority has obligations under the Coal Mining Subsidence Act 1991 to

¹⁹² The Coal Authority, 'Corporate Plan 2014/15, OFFICIAL' p 4, emphasis added, <http://webarchive.nationalarchives.gov.uk/20141002143759/http://coal.decc.gov.uk/assets/coal/publicationsandinformation/corporate%20plan%202014-15%20official.pdf>

¹⁹³ The Coal Authority, 'Corporate Plan 2014/15, OFFICIAL' p 5-7 and 14, emphasis added, <http://webarchive.nationalarchives.gov.uk/20141002143759/http://coal.decc.gov.uk/assets/coal/publicationsandinformation/corporate%20plan%202014-15%20official.pdf>

¹⁹⁴ OPSI, 2009, 'Information Fair Trader Scheme Report, The Coal Authority'

provide a remedy where damage is caused to property following the withdrawal of support as a consequence of lawful coal mining activities. The potential impact on its legal liabilities of more mining information coming into the public domain and the broader impact on the property market has led to this cautious approach. However, action is underway to create the conditions for wider re-use.¹⁹⁵

119. The decision by the Coal Authority to seek IFTS accreditation might seem to have been driven by the OFT's recommendation that PSIHs with PSI revenue of £100,000 should join the scheme. However, the Coal Authority told us that this decision was predominantly driven by its desire to demonstrate compliance with fair trading commitments in relation to the services it was providing at the time, given the monopoly position it held in relation to mining data. On the other hand, the contemporaneous Annual Report suggests that a "fair trading" compliant business model and framework for the provision of the Authority's mining information services has been developed' and submitted to OPSI for assessment.¹⁹⁶
120. OPSI's assessment also suggests that the material submitted by the Coal Authority indicated a desire to increase the amount of information made available for re-use beyond CON29M reports through licensing of bulk data extracts from the coal mining database. Specifically, OPSI pointed out that 'action is underway to create the conditions for wider re-use.' This meant that there were expectations that the hurdles to making the data in the coal mining database extractable and re-usable by third parties could be cleared. OPSI also noted that a significant amount of data improvement work had already taken place to make the coal mining data more readily useable by third parties and that '[t]he Coal Authority has developed a business model which will give third parties confidence that they can obtain information on the same terms as its commercial department. Accounting for information and splitting costs between core, wholesale and commercial functions has already been proved as feasible. Mechanisms for internal charging and externally charging for specified data are being explored in respect of flat fees or royalties per use or a mixture of the two.'¹⁹⁷
121. Unfortunately, the expectations about wider re-use of coal mining data remained unfulfilled. The request for re-use of some of the mining data sets by PinPoint resulted in an on-going dispute and two complaints made to OPSI under the Re-use Regulations and the IFTS. It is not clear whether further

¹⁹⁵ OPSI, 2009, 'Information Fair Trader Scheme Report, The Coal Authority', p 4

¹⁹⁶ The Coal Authority, 2009, 'Annual Report and Accounts 2008/09', p 6,

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/248162/0889.pdf

¹⁹⁷ OPSI, 2009, 'Information Fair Trader Scheme Report – Coal Authority', p 4-5

requests for re-use were discouraged by these proceedings, or whether there was little actual interest in coal mining data, although OPSI in its original IFTS report OPSI certainly saw unmet demand for the more comprehensive data service envisaged in the Coal Authority's business model.¹⁹⁸

122. The IFTS re-verification report noted the progress made by the Coal Authority in making mining risk data available for public consumption and commended the Coal Authority for its engagement with key stakeholders prior to the launch of its website tools, it also requested that the Coal Authority make the terms and conditions that it ultimately agrees upon for bulk re-use available to all other subsequent applicants and questioned whether 'the Coal Authority's ultimate aim of making all of its 'public' data readily re-usable at marginal cost is consistent with its faltering progress in setting up a system for bulk data to be straightforwardly re-used'.¹⁹⁹ The Maximisation principle was found to be still a development area, although OPSI commended the Coal Authority for the direct engagement work it had undertaken, 'meeting established data users, showcasing what data is available through 'data packs' and asking for feedback on what uses its data could be put to'.²⁰⁰ We understand that the outcome of this work has fed into the changes planned for 2015.
123. We also note that, the Coal Authority had 'become concerned about the effect of multiple copies of its data being in wide circulation. At one point, The Coal Authority was considering withdrawing the ability to license bulk data extracts.' The recommendations suggest that the Coal Authority has 'made a strategic decision to move away from commercial re-use of data extracts, towards real time database access' and that it 'should demonstrate that it intends to move ahead with its plans at an appropriate pace, publishing a clear timetable for implementation. ... The Coal Authority should continue to supply bulk data extracts to third parties pending the introduction of enhanced database access'.²⁰¹ We are not aware of a clear timetable for implementation of real time database access having been published, and understand that the planned release of a greater range of coal mining data planned for 2015 will not take the form of real time database access.

¹⁹⁸ Specifically, OPSI noted that noted that the lack of demand for licences might have been the result that, at the time, access to data would have involved inspecting the database on Coal Authority premises with the assistance of Coal Authority staff, which only one small company actually did (ibid, p 10). The Coal Authority has told us that there had not been much demand for this data for purposes other than the provision of CON29M reports or similar reports in the past, but that it is currently speculating what other re-use possibilities might exist, and believes that users could comprise solicitors, data resellers, developers, environmental consultants, etc.

¹⁹⁹ OPSI, 2012, 'Information Fair Trader Scheme Report, The Coal Authority', p 4-5,

<http://www.nationalarchives.gov.uk/documents/information-management/ca-ifts-report.pdf>

²⁰⁰ Ibid, p 10.

²⁰¹ Ibid, p 10-11.

Separation of public sector and commercial activities

124. OSPI's assessment of the Coal Authority's IFTS application suggests that the Coal Authority considered itself to be engaged in commercial activities, and had intentions to put in place mechanisms that would result in a separation of commercial activities and its other functions. Specifically, OPSI noted that: '[a]nticipating that there will be an expansion of direct licensing from its mining database, the Coal Authority has equipped itself well for this eventuality and has developed a business model which will give third parties confidence that they can obtain information on the same terms as **its commercial department**. ... Access to the database will be divided between **core, wholesale and commercial categories**. In addition to this top level division of functions, a piece of work has been done to map out how data will be updated and extracted on this model. Initial analysis has already demonstrated the feasibility of apportioning costs and income between core, wholesale and commercial information'.²⁰²
125. OPSI also noted that the Coal Authority did not charge itself for information from the mining database, but had started work looking at who such a charging mechanism might be implemented. A costing and pricing structure was expected to be operational by the end of the calendar year and a separate information licensing function or protocols for ring-fencing the administration of information licensing from the marketing of Coal Authority services was expected to be put in place as licensing volumes grew'.²⁰³
126. According to the 2012 IFTS re-verification report, the Coal Authority had set up a structure of functional separation between its 'wholesale' and 'commercial' operations, though those functions had to be re-consolidated into one department owing to the need to reduce costs. Given the small scale of licensing to third parties, this is not surprising. The Coal Authority has informed us that despite the two branches having been merged, wholesale and retail activities are ring-fenced and have accounting separation. We understand from the Coal Authority that the retail activities refer to the provision of CON29M reports and associated services, whereas the wholesale relate to the provision of data.

Definition of public task

127. The definition of the Coal Authority's public task has been at the core of the two complaints about the licencing of bulk data extracts. A detailed chronology is provided in Table 18 and Table 19 below.

²⁰² OPSI, 2009, 'Information Fair Trader Scheme Report, The Coal Authority', p 10-11, emphasis added.

²⁰³ Ibid.

128. In summary, the key question was whether the provision of CON29M reports falls within or outside of the Coal Authority's public task. If the provision of such reports were included, then making CON29M reports available for re-use would be covered by the Re-use Regulations, but the Re-use Regulations would not apply to the provision of information if the licensee intended to use the data to provide identical or similar mining reports. The Coal Authority appears to have set out conditions under which it would refuse to licence its coal mining data, including where the intended use was for the provision of CON29M reports and successor products. This was based on the argument that its public task included the provision of such reports.
129. OPSI at the time of the IFTS verification regarded the provision of such reports a value-added activity outside of the public task, based on the material provided by the Coal Authority. However, it accepted the Coal Authority's claim in its decision on the first complaint after the Coal Authority had pointed to an Explanatory Note in which the intended provisions of the Coal Industry Bill were stated to envisage that 'the Authority will provide a Mining Reports service much in line with British Coal's present practice.'
130. We understand from PinPoint that this interpretation was contentious, and that PinPoint considered that the reference to 'a' rather than 'the' Mining Reports service would be indicative of there being scope for multiple mining report services being offered.
131. OPSI appears to have further accepted that this definition of the public task would justify the licence exceptions that were put in place, and did not share the complainants concerns that the notion of 'successor products' was broad and unspecific and could be used anti-competitively. OPSI only considered that, in the interest of transparency, a clearer expression of the exception should be developed and published.
132. However, OPSI's position appears to have changed in its decision on the second complaint where it states that the Coal Authority 'under the principles of maximisation and fairness, should encourage the re-use of its information, including supply of CON29M substitutes'.
133. At the same time, OPSI acknowledges that although 'it is acceptable for a PSB not to allow competition against its public task, the public task needs to be clearly defined, reasonable and allow fair competition'.²⁰⁴ Taken at face value, this statement is somewhat contradictory in that OPSI also accepts that

²⁰⁴ OPSI, 2014, 'Office of Public Sector Information Report on its Investigation of a Complaint, PinPoint Information Limited and the Coal Authority', p 3, <http://www.nationalarchives.gov.uk/documents/information-management/coal-authority-complaint-report-2014.pdf>

the Coal Authority's public task **includes** the provision of CON29M reports.²⁰⁵ This would imply that it is acceptable for the Coal Authority not to allow competition against the production of CON29M reports.

134. One potential interpretation of OPSI's position is that, in order for the maximisation recommendation to have any impact, an appropriately defined public task has to exclude services that can be competitively supplied, and include only activities that are non-contestable. It is worth noting that under this interpretation there would be a match between what the OFT has termed 'unrefined' information and public task activities, and between 'refined' information and non-public task, value-added commercial services.

Complaints and complaint handling

135. Two separate formal complaints to OPSI about the Coal Authority have been submitted by PinPoint. PinPoint has told us that it was dismayed to find that its complaints could not have been dealt with more quickly and informally. A detailed description of these complaints is provided in Table 18 Table 19 below.
136. While the part of PinPoint's 2011 complaint relating to the Coal Authority's public task was dismissed, OPSI noted that the Coal Authority should have responded to PinPoint's request for re-use. Further, although PinPoint's 2011 complaint did not raise issues under the IFTS principle of challenge, as part of its investigation of the 2011 PinPoint complaint against IFTS principles OPSI raised concerns about the initial handling of the complaint as it considered that the Coal Authority should have made it clearer that there was a re-use issue in its response to PinPoint's request instead of simply refusing the business proposal.
137. As part of its 2012 verification, under the Challenge principle, OPSI recommended that the Coal Authority update its complaints procedure document highlighting the right of licensees to complain to OPSI, either as part of the IFTS or under the PSI Regulations.

Residual problems

138. As OPSI has pointed out, the Coal Authority's future corporate strategy if implemented in full will address many of the concerns that were at the heart of the two PinPoint complaints.

²⁰⁵ See paragraph 24 OPSI, 2014, 'Office of Public Sector Information Report on its Investigation of a Complaint, PinPoint Information Limited and the Coal Authority', p 10, <http://www.nationalarchives.gov.uk/documents/information-management/coal-authority-complaint-report-2014.pdf>

139. It is not clear to us whether the proposed changes involve a modification of the Coal Authority’s public task, or whether they relate to allowing the provision of CON29M reports even though the Coal Authority considers this service to be part of its public task. Although the details may not matter in this specific case, a tighter definition of the public task may provide more certainty to prospective re-users than allowing the provision of a specific service.
140. The Coal Authority has informed us that bulk data extracts will be provided on a regular update cycle that is currently under review. Also under review is whether the data will only be available as a national dataset, or whether regional subsets will be offered. This means that third parties will not benefit from the daily updates of the data in the same way as the Coal Authority does. We understand that currently the Coal Authority is not in a position to provide real time access due to limitations on its IT system. It will, however, be providing the CON29M Answers in real time. It is not clear to us to what extent this might create a disadvantage for third parties.

Detailed history of the PinPoint complaints

Table 18: The first PinPoint complaint

August 2010	PinPoint requests a complete copy of the content of the databases that may be used to compile a CON29M report.
November 2010	After a series of emails and meetings with the Coal Authority, PinPoint Limited submits an outline of a business proposal for a joint venture with the Coal Authority, rather than a simple request to re-use information. The Coal Authority responds to the offer of a joint venture with a refusal letter on 11 November 2010.
November 2010	PinPoint makes a formal complaint to the Coal Authority as a result of the refusal and requests mediation through OPSI.
December 2010	The Coal Authority responds refusing mediation.
February 2011	<p>OPSI receives a complaint from PinPoint under both the Re-use of PSI Regulations and the IFTS, complaining about the reasons given by the Coal Authority for declining PinPoint’s proposed offer in the refusal letter, and the Coal Authority’s published licence exception on its website, which states that the Coal Authority ‘may refuse a licence in certain circumstances [including] [w]here the Authority considers the use of its data to be inappropriate, for example if ... it is for the production of CON29M coal mining reports or successor products...’²⁰⁶</p> <p>The Coal Authority maintains that the refusal letter of 11 November 2010 was intended solely to reject the offer of a joint venture and did not deal with the request to re-use information and that the Coal Authority was prepared to continue discussions with PinPoint about proposed re-use up until the formal complaint was received.</p> <p>It is acknowledged that the Coal Authority makes the information available to those requiring a CON29M report by producing a report for a particular property in response to a request and it is not in dispute that PinPoint could have made a similar arrangement on the same terms and conditions as other commercial firms.</p>
October 2011	<p>OPSI partially upholds the complaint and recommends that the Coal Authority should publish a statement of its public task; comply fully with Re-use Regulation 16(1)(c) and make available information listing the main documents it holds that are available for re-use. The Coal Authority should also formally respond to PinPoint’s initial re-use request and review communications with OPSI.²⁰⁷</p> <p>OPSI’s reasoning can be summarised as follows:</p>

²⁰⁶ OPSI, 2011, ‘Office of Public Sector Information Report on its Investigation of a Complaint, PinPoint Information Limited and the Coal Authority’, p 7-8, <http://www.nationalarchives.gov.uk/documents/coal-authority-complaint-report.pdf>

²⁰⁷ Ibid, p 22.

	<ul style="list-style-type: none"> • OPSI's view of the Coal Authority's informal understanding of its public task had been based on information gathered during the accreditation to IFTS in 2009. The information gathered then suggested that the Coal Authority's 'public task covered the maintenance of the information and providing access to it, while producing CON29M reports was an added value activity outside of its public task.'²⁰⁸ However, accepted the Coal Authority's claim that its public task included the provision of CON29M reports based on evidence 'in the form of extracts from a Revised Coal Authority Explanatory Note, produced by the Department of Trade and Industry for Parliament in June 1994 to explain the intended provisions of the Coal Industry Bill. As enacted, these provisions became s57 of the Coal Industry Act 1994. The Explanatory Note sets out the intention when this legislation was drafted that 'It is envisaged that the Authority will provide a Mining Reports service much in line with British Coal's present practice.' As this was the intention of the legislation when introduced, we take it that providing a Mining Reports service, (the equivalent of which is now the CON29M reports) does fall within the public task of the PSB.'²⁰⁹ In view of the mining report falling within the Coal Authority's public task and PinPoint's intention to use the information requested 'to create a number of reports (primarily a Coal report) that have the necessary level of content and detail to equate that of a CON29M'²¹⁰ OPSI concluded that the use of the database for this purpose would 'not be re-use'. OPSI was 'satisfied that Regulation 12(2)(b) (regarding unnecessary restriction of competition) does not apply to the use of information in the databases maintained by the PSB to compile CON29M reports and that this head of the Complainant's complaint must therefore fail.'²¹¹ • Regarding its review under the IFTS principles, OPSI finds that the Maximisation principle was met by the Coal Authority because it was making progress on its dissemination programme and was therefore working towards meeting the maximisation recommendation made by OPSI in 2009, although Coal Authority could have done more to explain the reasons for not providing this information at the time and to assure potential re-users that the information would become available and provide a timetable. The Coal Authority did not breach the Fairness principle because it was inevitable that the proposal was rejected by the Coal Authority as being a replication of its public task (but with out of date information as the information needs to be constantly updated by the Coal Authority, which would not be possible once a copy is licensed). OPSI did not agree with the concerns that the inclusion of 'successor products' in the licence exception was too broad and potentially anti-competitive, but thought that 'a new, clearer expression of the exception should be developed and published.'²¹² Indeed, OPSI was more concerned about the Coal Authority's lack of <i>transparency</i> on the exception clause because the Coal Authority had added this new clause without pro-actively informing existing licensees and without informing OPSI. In terms of <i>innovation</i>, OPSI could not come to a view on whether the proposed use was innovative, as PinPoint did not want to explain its intended innovations because of trust issues. However, the Coal Authority could have done more to encourage PinPoint to reveal more information on how it intended to innovate under guarantees of commercial confidentiality. Although the complaint did not raise issues of Challenge OPSI raised concerns about the initial handling of the complaint as it considered that the Coal Authority should have made it clearer that there was a re-use issue in its response to PinPoint request instead of simply refusing the business proposal. <p>OPSI makes a number of suggestions, including that the recommendations be acted upon within six months of publication of the report:²¹³</p> <ul style="list-style-type: none"> • the Coal Authority should demonstrate a commitment to Maximisation by 'publishing a statement that the information will be available for re-use (not for CON29M purposes) at the end of the information dissemination work in September 2012, and set out and keep up to date the timetable and key events to make this happen';²¹⁴ • subsequently the Coal Authority should engage with potential re-users offering trial data; • the Coal Authority should explore the possibility of allowing re-use on a region-by-region basis as the information is disseminated in each region; and • the Coal Authority should review communications with licensees.
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²⁰⁸ Ibid, p 6.emphasis added.

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http://webarchive.nationalarchives.gov.uk/20140721140515/http://coal.decc.gov.uk/en/coal/cms/publications/data/public_task/public_task.aspx

²¹⁰ OPSI, 2011, 'Office of Public Sector Information Report on its Investigation of a Complaint, PinPoint Information Limited and the Coal Authority', p 11, <http://www.nationalarchives.gov.uk/documents/coal-authority-complaint-report.pdf>

²¹¹ Ibid, p 11, emphasis added.

²¹² Ibid, p 15.

²¹³ Ibid, p 22.

²¹⁴ Ibid, p 20.

June 2012	OPSI publishes a progress report in relation to the complaint. Its overall assessment is that the Coal Authority had met all the recommendations and made 'good progress' on the suggestions made by OPSI. ²¹⁵ In addition, OPSI notes that the Coal Authority has made a public commitment to review its information strategy. At the same time, OPSI notes that progress had not been made on the maximisation 'suggestion'.
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Table 19: The second PinPoint complaint

July 2012	The Coal Authority enters into an agreement with Pinpoint in July 2012 for the provision of coal mining data
June/July 2013	Supply of the data is suspended; prior to this, PinPoint had complained about missing data to both the Coal Authority and OPSI
February 2014	After a number of meetings have not resulted in a resolution, PinPoint makes a formal complaint to OPSI under both the IFTS and the Re-use Regulations about the Coal Authority's decision to suspend PinPoint's licence ²¹⁶ The licence was suspended because the Coal Authority alleged that PinPoint had breached the terms of the agreement. The alleged breach related to anticipated use of the licence for a purpose conflicting with the Coal Authority's public task. ²¹⁷
December 2014	OPSI issues its decision, making a number of recommendations: <ul style="list-style-type: none"> • OPSI accepts that the Re-use regulations are not engaged as the matter is one of use rather than re-use. Specifically, OPSI agrees that the provision of CON29M reports is part of the Coal Authority's public task, and that the published public task statement has been consistent with respect to its position on re-use for the relevant purposes throughout the relevant period and was published before the licence agreement that is the subject of the present complaint. OPSI also notes that the public task is not solely defined by statute, but by other binding rules and common administrative practice, and that Coal Authority's business model is to recover its costs through charges for the provision of mining information.²¹⁸ PinPoint had been encouraged and provided a mock up of the product it intended to supply with the information licensed from the Coal Authority. Whilst PinPoint 'argues that there was a difference between its product and that of the PSBs, for instance the inclusion of brine data' OPSI considers that 'the core product is similar' to the Coal Authority's CON29M report and 'that the differences were not significant enough to be classed as re-use of information.' • Under the IFTS, OPSI finds that Coal Authority acted transparently by publishing its statement and seeking feedback from some stakeholders, including OPSI, though 'it is good practice to give the opportunity for re-users to input as the public task is drawn up.'²¹⁹ OPSI recommends that the Coal Authority provides a forum for re-users to submit feedback on the public task, and that the public task statement is reviewed at least every 3 years.²²⁰ OPSI finds that the Authority's policy of not permitting re-use of the documents for the purposes of creating products that were similar to a CON29M, did not facilitate maximisation.²²¹ In light of this issue, OPSI recommends 'that in order to maximise re-use and allow fair competition, the PSB should allow the re-use of its information for any reasonable purpose, including supply of CON29M substitutes.'²²² However, in the sentence immediately following this recommendation OPSI stated that '[i]t is acceptable for a PSB not to allow competition against public task activity. However, it needs to ensure public task activity is clearly defined.'²²³

²¹⁵ OPSI, 2012, 'PinPoint Information Limited and The Coal Authority: Progress Report', p 1, <http://www.nationalarchives.gov.uk/documents/information-management/coal-authority-progress-report.pdf>.

²¹⁶ OPSI, PinPoint Information Limited and the Coal Authority, December 2014.

²¹⁷ OPSI, PinPoint Information Limited and the Coal Authority, December 2014, paragraph 24.

²¹⁸ OPSI, PinPoint Information Limited and the Coal Authority, December 2014, paragraphs 23-26.

²¹⁹ OPSI, PinPoint Information Limited and the Coal Authority, December 2014, paragraph 34.

²²⁰ OPSI, PinPoint Information Limited and the Coal Authority, December 2014, paragraph 34.

²²¹ OPSI, PinPoint Information Limited and the Coal Authority, December 2014, paragraph 33.

²²² OPSI, PinPoint Information Limited and the Coal Authority, December 2014, paragraph 33.

²²³ OPSI, PinPoint Information Limited and the Coal Authority, December 2014, paragraph 33.

Land Registry

Overview

141. Land Registry is a non-ministerial Government department responsible for registering land and property ownership in England and Wales. It was created in 1862²²⁴ and became an executive agency in 1990. It has held trading fund status since 1993. In 2003, Land Registry's Trading Fund Order was extended to include 'the provision of services in wider markets [...] relating to the registration of titles to land and to the management and marketing of information relating to land and property'.²²⁵ Since 2011, Land Registry has been part of BIS.

Role of PSIH and description of information held

Public activities

142. Land Registry's relevant powers and responsibilities are set out in the Land Registration Act 2002; it has additional statutory responsibilities under the Agricultural Credits Act 1928 and the Land Charges Act 1972.
143. Land Registry's main purpose is to 'register ownership of land in England and Wales and to record dealings with land once it is registered'.²²⁶ In this context, Land Registry holds the register of title for land in England and Wales and records dealings with registered land (eg sales and mortgages). The register includes information of the prices at which land and property was sold.
144. Given the statutory requirements for third parties to supply Land Registry with information when making applications, in practice there are no alternative, comprehensive sources of data related to land ownership.
145. Fees for registering properties and changes of ownership, etc., which are set by statute, generate the large majority of Land Registry's income. The latest accounts for Land Registry show that in 2013/14 it received income of £377m from statutory activities, which consisted of £372m from title registration and £5.5m from land charges and agricultural credits. Its statutory income has varied since the CUPI study was published, reflecting factors such as macroeconomic trends, rather than PSI-related developments. By

²²⁴ With the Land Registry Act 1862.

²²⁵ OPSI, 2007, 'Note of meeting of Licensing Forum', <http://webarchive.nationalarchives.gov.uk/20090805132027/http://www.opsi.gov.uk/advice/lf-minutes-2007-03-30.pdf>

²²⁶ Land Registry, 2014, 'Public task statement', <http://webarchive.nationalarchives.gov.uk/20140709064818/http://www.landregistry.gov.uk/media/about-us/policy-statements/public-task-statement>

comparison, non-statutory commercial income in 2013/14 was £3.9m, approximately 1% of total revenue. This commercial income is understood to include some income from services provided to other public bodies – eg services that allow LAs to monitor changes to the register.

146. Land Registry's activities and revenue are inevitably dependent on developments in the property market and in the wider economy as a whole. This was evident towards the end of the last decade when, at the height of the financial crisis, Land Registry's income dropped from £483m in 2007/08 to £308m in 2008/09. The 2008/09 annual report stated that, '[t]o put it bluntly, our workload and income have fallen off a cliff. It's probably the most difficult period in our long history'.²²⁷
147. Changes recently announced for Land Registry as part of the Infrastructure Bill²²⁸ could have a material impact on its statutory remit and on the range of activities that it will undertake. A Land Registry consultation in relation to the plans for 'wider powers and local land charges' was published in January 2014.²²⁹ It sought views on proposals to (a) extend powers under the Land Registry Act in order to enable Land Registry to provide services related to land and other property, as well as land registration, and (b) amend the Local Land Charges Act to enable Land Registry to hold and maintain the Local Land Charges Register. While the likely impact remains uncertain at the time of writing, our stakeholder engagement has confirmed the findings of the consultation, which revealed substantial opposition to the plans from stakeholders, including LAs and private sector firms. Nevertheless, the Government response stated that Land Registry would proceed with the plans (with some specific alterations), in line with 'the Government's desire to build on the existing expertise of Land Registry and transform it into a leader in digitising land and property services and in the management and re-use of land and property data'.²³⁰

Commercial activities

148. In addition to its statutory activities, Land Registry also generates some income from providing value added services to professionals, businesses and

²²⁷ Land Registry, 2009, 'Annual report and accounts 2008/09', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/248248/0700.pdf

²²⁸ See <https://www.gov.uk/government/news/infrastructure-bill>

²²⁹ See <https://www.gov.uk/government/consultations/land-registry-wider-powers-and-local-land-charges>

²³⁰ Land Registry, 2014, 'Government response to consultation', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/320525/Govt_Response_Report_on_Wider_Powers__LLC_Consultation_16_6_14.pdf

the public in general.²³¹ However, as noted above, commercial activities account for a very small proportion of overall revenue.

149. At the time of the CUPI study, Land Registry had an objective to make all land registration data electronically accessible to everyone, which was completed in 2006/07 via Land Register Online. A separate objective was to broaden its range of services for property professionals, the public and others. Its 2005/06 annual report states that it planned to use the CUPI study 'to investigate a number of alternative business framework models which are used elsewhere in the public sector to develop and market new 'commercial services' as carried out in other trading funds'.²³² At that time, two new non-statutory services were being piloted, to allow customers such as LAs to monitor register changes on a portfolio of properties, and to allow customers such as financial institutions to match and cleanse their data.
150. Reflecting Land Registry's on-going objective to broaden the range of commercial services, in 2007/08, 'add value' income²³³ increased to £3.2m, from the previous year's income of £1.8m. This was attributed to an increase in 'data services', including property price and polygon data, and a significant growth in consultancy and electronic services, such as data matching and cleansing. Additional services used by private sector customers (eg estate agents and lenders) included Property Watch, Data Matching and Charge Validation, and a new range of services for conveyancers was launched.²³⁴ In 2008/09, '[d]espite difficult trading conditions gross incremental revenue from 'add value' sales increased by 20 per cent', following a focus on services such as Charge Validation and Data Synchronisation.
151. In 2009/10 'add value' income increased marginally and by 2010/11 it had reached £4.4m. A particularly successful product was Property Portfolio Consolidator, which supplied landlords with detailed information about their portfolio. In 2011/12 the amount increased to £4.9m and the expansion of services continued with new Volume Data Matching and Monitoring services.

²³¹ Tim Jarrett, 2014, 'Possible changes to HM Land Registry's commercial model', www.parliament.uk/briefing-papers/SN06885.pdf

²³² Land Registry, 2006, 'Annual report and accounts 2005/06', p 62, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/231599/1434.pdf

²³³ Prior to 2011/12, Land Registry reported on income from 'add value' products and services. From 2011/12, annual reports included 'non-statutory commercial income', which includes the same activities (related to spatial data, non-spatial data, consultancy services, flood risk indicator and other commercial services). Land Registry told us that 'non-statutory income' includes, but is not restricted to, income from 'add value activities'. Figures for 'value add' income continued to be reported in the years 2011/12 and 2012/13; these exactly matched the reported figures for 'non-statutory commercial' income.

²³⁴ Land Registry, 2009, 'Annual report and accounts 2008/09', p 47, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/248248/0700.pdf

Since then, commercial revenue has fallen to £3.9m in 2013/14, resulting in a marginally negative operating surplus from commercial activities.²³⁵

152. Overall, Land Registry's commercial activities related to data have expanded since the CUPPI study was published, and the relevant revenue has increased in line with this (though still remaining very small relative to Land Registry's statutory income). The trend has largely been driven by services – eg volume data matching and monitoring services. Revenue from other streams – such as the licensing of particular datasets – has decreased recently, as the move towards an Open Data model since 2012 has eliminated revenue from products that were previously charged for.
153. BIS launched a consultation in January 2014²³⁶ on potential changes to Land Registry's commercial model, to separate policy and service delivery within Land Registry that would lead to the introduction of a Land Registry service delivery company. However, a high proportion of respondents opposed this and the Government's response was that 'further consideration' would have to be given to this.²³⁷ No changes have been made at the time of writing.

Information made available for re-use

154. Land Registry provides a Publication Scheme that sets out the information it publishes and how to access it, and makes available dataset inventory lists that set out all the electronic data that has been obtained or recorded for the purpose of enabling Land Registry to carry out its statutory functions. Land Registry is committed to 'publish any dataset (and updates) [it] hold[s], in relation to which a request has been made',²³⁸ subject to regulation and third-party IPR restrictions and already releases many datasets under Open Government Licence (OGL). Further, Land Registry has stated that it is 'committed to releasing more [...] data to support the Government's priorities of economic growth and data transparency'.²³⁹
155. Land Registry now offers two online channels for accessing land ownership information – one for professional (conveyancing) purposes and one with an

²³⁵ It is worth noting, however, that 2013/14 costs included a payment of royalties to Ordnance Survey covering nine years; correcting for this would give a surplus of around £0.3m. Land Registry had declared an operating surplus of around £1m from commercial activities in previous years

²³⁶ BIS, 2014, 'Introduction of a Land Registry service delivery company', available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/274493/bis-14-510-introduction-of-a-land-registry-service-delivery-company-consultation.pdf

²³⁷ BIS, 2014, 'Introduction of a Land Registry service delivery company: Government response', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/328872/bis_14_949_Introduction_of_a_Land_Registry_Service_Delivery_Company.pdf

²³⁸ See <https://www.gov.uk/government/organisations/land-registry/about/publication-scheme>

²³⁹ *Ibid.*

interface designed for citizens. Use of the citizens' channel grew rapidly and far in excess of expectations.

156. In recent years Land Registry has moved towards an Open Data model for its bulk datasets. It makes the following data available for free for both commercial and non-commercial re-use under the OGL:
- transaction data, which includes the number of applications for first registrations, leases, transfers of part, dealings, official copies and searches that were completed by Land Registry by account holders in the preceding month; coverage commences in December 2011 and monthly data was made freely available from March 2012;
 - Price Paid data, covering residential property sales in England and Wales; this data is available from January 1995 and updated monthly; it is typically used by application developers, data analysts, estate agents and property website owners. Monthly data was released for free from March 2012, with historical data being made available from June 2013;
 - House Price Index background data, which compares the current average house price to prices in January 1995, is available from January 1995 onwards and updated monthly;
 - INSPIRE Index Polygons, which locate registered freehold land and property in England and Wales. This dataset was published on Land Registry's website in November 2011 and is available under the OGL for personal and non-commercial use, but users who wish to make use of this dataset for commercial purposes need a licence from OS for OS IPR contained in the polygon data;
 - 1862 Act registers, which contains scanned images of Land Registry's historical 1862 Act register.
157. Land Registry also makes available a search tool for the House Price Index data and a Price Paid report builder for users that do not require the entire dataset but are interested in more specific information and published data in linked format (Transaction Data, Price Paid Data and House Price Index data).
158. Land Registry offers a property search function on its website, where users can purchase individual copies of title registers or title plans. In addition, users can purchase a flood risk indicator. The latter product was launched in November 2009 and represents the first time that Land Registry purchased another PSIH's data (from the Environment Agency) and combined it with its own to create a new product.

159. Any requests for information outside Land Registry's public task remit are considered by the commercial services team, in accordance with Land Registry's published licensing terms and conditions.
160. Land Registry has told us that some constraints on the release of data will apply in order to comply with the Data Protection Act 1998 and where information is subject to third party's copyright (eg in relation to OS data). In some cases, these will be legitimate barriers to making more information available. For example, granting unrestricted or bulk access to property ownership data could facilitate property fraud as well as raising privacy issues, which is why access to such data is only granted on a controlled, case-by-case basis. For information on price paid, data protection concerns have also been raised, as it could be argued that the data constitutes personal information. Land Registry has used impact assessments, both before the release of data and after, to support the case that these concerns are not sufficient to prevent the release of the information.

Compliance with CUPI principles

Changes since CUPI

161. At the time of the CUPI study, Land Registry was still relatively new to information trading and data-related services. It had been accredited to the IFTS in 2004, with OPSI noting that Land Registry was 'attempting to be proactive in developing policy and practice at an early stage' and 'actively committed to developing its information business in line with its Information Fair Trader commitment'.²⁴⁰ A subsequent re-verification in January 2006 found that good progress was being made. OPSI recommended that Land Registry should continue to develop its information trading policy and procedures, ensure terms were fair and appropriate (eg in relation to termination clauses and specific-use restrictions) and enhance transparency on its website. Land Registry was not the subject of a detailed assessment by the OFT as part of the study, though Annex B of the CUPI report mentions that 13% of users of Land Registry's PSI surveyed had experienced problems over the previous three years. Concerns related to pricing, terms and conditions of licences, Land Registry moving into the same market as the users of its data and consistency of treatment across users.
162. As noted above, Land Registry has referred to the CUPI study as an input into the development of its commercial activities.²⁴¹ In our interview, Land Registry

²⁴⁰ Her Majesty's Stationery Office, 2004, 'Verification of commitment to information fair trading: Her Majesty's Land Registry', paragraph 7.

²⁴¹ Land Registry, 2006, 'Annual report and accounts 2005/06', p 62, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/231599/1434.pdf

confirmed that CUPI played an important role, bringing about a change in perspective and helping Land Registry to think of itself as a data provider, to consider the most appropriate business model and strategy for data-related services on the basis of examples of best practice discussed in the CUPI study, and to consider the wider economic benefits from re-use of its data. Although plans for expansion of Land Registry's commercial activities existed at the time of the OFT study, CUPI is likely to have influenced and accelerated these developments.

163. In the action plan submitted in January 2008 in response to a request directly linked to CUPI, Land Registry stated that information related to statutory services (eg copies of land registers and title plans) had already been made fully available online, though improvements were on-going and a new portal was due to be launched. Property price information was already being licensed and would be made available in downloadable form to subscribers, and spatial data (polygons) was made available, but only for internal business use or to OS licensees. Land Registry was however in on-going discussions with OS aimed at removing these constraints. At the same time, Land Registry pointed out that issues of personal data and potential mis-use were an important factor in deciding whether particular types of data should be widely disseminated, and that any move to marginal cost or free pricing (as advocated by the Cambridge study) would have profound financial implications. In its January 2009 IFTS re-accreditation report, OPSI noted that Land Registry had made significant progress on all fronts highlighted in its action plan.
164. The same report identified Land Registry's licences as fair and effective but noted that licensing could be further simplified and that there were still some restrictions on re-use owing to data protection issues. At the time, Land Registry was 'about to embark upon a review of its licensing documentation'. It was considering further segmentation of its existing portfolio of products, in order 'to offer services via a series of channels that more precisely align with its different customer groups'.²⁴² It was seeking to gain greater penetration of its potential customer base and was potentially taking forward a more comprehensive online conveyancing system in the following years.
165. The 2012 IFTS re-accreditation report noted that Land Registry had moved from a three-tier contract structure into a single set of umbrella terms for its value-added products, implementing the recommendation to simplify the licensing of information from the previous IFTS re-accreditation report. Land Registry was analysing the possibility of releasing more data for free as part

²⁴² OPSI, 2009, 'Information Fair Trader Scheme Report: Land Registry', paragraph 9, <http://tna.europarchive.org/20100210163258/http://www.opsi.gov.uk/ifts/land-registry-ifts-report.pdf>

of a freemium model of pricing that had already been adopted for some of its information, which could potentially generate social benefits, promote economic growth and incentivise take-up of its value-added commercial services. Land Registry was also improving on innovation through the provision of samples of data for evaluation and planning of a 'hack day'.

166. At the same time, OPSI noted some areas for further development regarding commercial property data 'either in terms of capturing a richer data set about commercial property transactions and then offering it for re-use or in promoting awareness of how the intelligence that Land Registry currently has can assist companies with extensive property holdings to manage their estates more effectively'. In this context, some recommendations for the future were put forward, including a recommendation to consider the potential of release of historic Price Paid data and to conduct an internal review of Land Registry's commercial pricing policy, taking into account the implications of 'dynamic pricing' – ie, pricing according to market demand – that was being used for some products (eg commercial property data). Even though this pricing model was responsive to market conditions, it could lead to unfairness concerns for re-users.
167. Land Registry's business strategy for 2013-2018 sets out a commitment to improve on transparency, accessibility and re-use of PSI, aligned with Government objectives. Based on its dataset inventory Land Registry is considering which datasets can be published for free going forward, taking account of aspects such as fraud concerns.
168. In summary, Land Registry, having been relatively new to information trading at the time of the CUPPI study, has significantly expanded its range of data-related activities since 2006. CUPPI appears to have been an important driver of this process. Land Registry has also demonstrated a willingness to develop and improve its licensing framework, and is actively engaged with (potential) users of its data.
169. The recent move towards an Open Data model for key bulk datasets is a clear positive development with regard to commercial use. The release of price paid data, including historical data, for free is widely seen as one of the most significant open data releases. Information provided by Land Registry indicates that its Open Data – particularly price paid data – has seen a very high number of downloads, relative to other freely available datasets. Third parties that make use of this data, such as Zoopla and Rightmove, are generally seen to be delivering material benefits for consumers. While Open Data developments are not directly linked to CUPPI, Land Registry believes that the study may well have accelerated its Open Data releases, by making it prepared to respond to the pressures of the Open Data movement. In the

years that followed CUIP, Land Registry made significant progress in establishing itself as a pro-active supplier of PSI and related services, with the supporting technical infrastructure, policies and processes, variety of established revenue streams, and understanding of customer needs, all of which appears likely to have facilitated the subsequent Open Data releases.

Separation of public sector and commercial activities

170. Land Registry provides a clear example of the apparent drawbacks of the unrefined/refined terminology adopted by the OFT. In a 2007 OPSI Licensing Forum meeting, representatives of Land Registry commented that the interpretation of the terms was subjective, because 'LR's register is superficially unrefined as it is at its most basic, data transferred straight from a registration form', but at the same time, 'much technical work went into creating the register and there has been considerable input from Ordnance Survey. Therefore, there is also a case for the Register being refined'.²⁴³
171. Our engagement with Land Registry indicates that the terminology may have hampered the adoption of this distinction. It was suggested that Land Registry's data could only be seen as 'refined' because a skilled workforce is involved in analysis, validating and interpreting information that goes into producing and maintaining the Register. Therefore, the unfortunate connotations of the terms used by the OFT appear to have diluted their intended meaning, which was based on a notion of contestability. There has been no separation of activities in line with the OFT's distinction.

Definition of public task

172. Land Registry did not have a published public task at the time of the CUIP study. In the 2009 IFTS report, OPSI found that 'Land Registry has a sound rationale for how it categorises its 'public task', viewing its registration activities and services which support the conveyancing process as consistent with its public remit. It then provides data, polygons and plans as added value services. These usually involve a degree of investigation into, or analysis of, information collected at registration, or the information is required for a purpose other than that for which it was originally collected'.²⁴⁴
173. Land Registry published a public task statement on its website in 2011 indicating that its functions and responsibilities are 'wholly statutory', as

²⁴³ OPSI, 2007, 'Note of Meeting of Licensing Forum', <http://webarchive.nationalarchives.gov.uk/20090805132027/http://www.opsi.gov.uk/advice/lf-minutes-2007-03-30.pdf>

²⁴⁴ OPSI, 2009, 'Information Fair Trader Scheme Report: Land Registry', paragraph 15, <http://tna.europarchive.org/20100210163258/http://www.opsi.gov.uk/ifts/land-registry-ifts-report.pdf>

determined by the relevant legislation – its ‘main purpose is to register ownership of land in England and Wales and to record dealings with land once it is registered’.²⁴⁵ The public task statement does not acknowledge Land Registry’s non-statutory, commercial activities. Land Registry is understood to have engaged in some informal consultation with some of its commercial customers and re-users of PSI when setting out this characterisation of its public task.

174. The proposed changes related to wider powers and local land charges would naturally have implications for the public task, potentially widening the scope substantially.

Complaints and complaint handling

175. According to Land Registry, internal complaints about restrictions on re-use or quality of service are very rare, with any complaints usually concerning other issues such as privacy and data protection, misunderstandings, allegations of inaccuracy in the data on the register or product quality issues.
176. The 2012 IFTS re-accreditation report noted had improved its complaints procedure to make it clearer with respect to pointing complainants towards LR’s Independent Complaints Reviewer or OPSI/APPSI, depending on whether the complaint concerned Land Registry’s licensing of PSI. In any case, Land Registry has not been the subject of any PSI-related complaints made to OPSI.²⁴⁶

Residual problems

177. It appears clear that the OFT’s recommendations that employed the unrefined/refined distinction have not had any substantial impact on Land Registry. This may be in part due to the terms not being applied in a way that reflected the OFT’s intended meaning, but also due to a perception that certain competition issues may not apply to a PSIH such as Land Registry, for which PSI-related income is only a small component of its overall revenue.
178. Despite the intent – as stated in Land Registry’s 2008 action plan – to resolve on-going issues with OS and allow completely unrestricted use of the INSPIRE Polygons dataset free of charge, the commercial use of the dataset continues to be subject to OS charges. This is a cause of frustration among some stakeholders and customers.

²⁴⁵ We note that, at the time of writing, the website stated that ‘This statement is regularly reviewed and is due to be reviewed in December 2012’.

²⁴⁶ OPSI has investigated a complaint related to Land Registry’s INSPIRE Polygons dataset, but the complaint regards the charges set by Ordnance Survey for the commercial re-use of the data.

179. Finally, we note that there is substantial opposition to the recent proposals related to wider powers and local land charges, without making any assessment as to whether the concerns raised are necessarily justified. Consultation responses²⁴⁷ showed that some of the reasons given for opposing the plans are closely related to the OFT's competition concerns at the time of the CUPPI study. Competition and monopoly concerns emerged as key themes, with some stakeholders opposing the expansion of Land Registry's activity powers beyond what is perceived to be its natural remit and fearing for the survival of private sector property search providers. Similarly, a representative of the Association of Independent Personal Search Agents has stated that '[t]he personal search market should be held up as a shining example of public sector information re-use rather than being swept aside by Government'.²⁴⁸ Land Registry told us that the proposals aim to support the property market and the wider economy; any new services would take into account stakeholder views and potential competition issues. It is also understood that Land Registry has engaged in on-going dialogue with the OFT/CMA 'in relation to potential LLCs competition and monopoly issues'.²⁴⁹
180. In practice, the proposals might amount to a material expansion of a PSIH's public task. The perception of PSIHs' public tasks being excessively broad is a pervasive problem in the market for PSI today (see also the OS and Coal Authority case studies). A popular perception is that certain Government objectives – eg commercial objectives related to the possibility of privatisation – sometimes over-ride conflicting objectives – eg the maximisation of re-use of PSI from third parties and the benefits that this can generate. In this specific case, we note that the high degree of opposition to the proposals may be indicative of residual problems in the market.

UK Hydrographic Office

Overview

181. The UK Hydrographic Office (UKHO) is a trading fund sponsored by the Ministry of Defence (MOD). The UKHO has an obligation to produce navigation charts and publications for the UK waters in order to supply products and services to the Royal Navy in support of their activities and to

²⁴⁷ Land Registry, 2014, 'Government response to consultation, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/320525/Govt_Response_Report_on_Wider_Powers__LLC_Consultation_16_6_14.pdf

²⁴⁸ See <http://insideconveyancing.co.uk/content/ipsabeginsjudicialproceedingsagainstlandregistry>

²⁴⁹ Land Registry, 2014, 'Government response to consultation, p 72, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/320525/Govt_Response_Report_on_Wider_Powers__LLC_Consultation_16_6_14.pdf

satisfy the UK obligations under the International Convention for the Safety of Life at Sea (SOLAS).

182. The UKHO is also the charting authority for Republic of Ireland, and has taken on the responsibility of charting the national waters of some other countries that lack the resources to produce their own charts (eg, in the Middle East and some parts of Africa).
183. The UKHO is one of the largest trading funds in terms of revenue. Turnover in 2013/14 was £129m, allowing the UKHO to pay a dividend of £12m to the MOD²⁵⁰. The majority (over 90%) of the UKHO's revenue comes from selling its charts and publications to the commercial shipping sector.

Role of PSIH and description of information held

Public activities

184. The UKHO is responsible for providing hydrographic services to support the Royal Navy and other defence customers, ensuring that marine data of the UK coastal waters is up to date in support of the Maritime and Coastguard Agency's (MCA) SOLAS obligations, advising the Government, the MCA and the public, and representing the Government worldwide in relation to expert advice on hydrography.²⁵¹ Meeting its SOLAS obligations requires the UKHO to '[s]ource, assess, analyse, archive and maintain hydrographic, oceanographic, geophysical, astronomical and regulatory data required to improve maritime safety, protect the marine environment and maritime trade by the preparation, issue and updating of those charts and publications required for carriage compliance in all waters of UK national responsibility.'²⁵² Although the SOLAS obligation only requires it to chart the oceans for the UK, the UKHO produces charts covering the oceans of the whole world.
185. The UKHO does not itself engage in data collection, but relies on surveys undertaken by the Royal Navy and the Maritime and Coastguard Agency as well as data provided by individual ports for its information for UK waters. Further data is obtained from other hydrographic offices across the world. The fact that it does not own the vast majority of data used in its charts is a major difference between UKHO and other trading funds such as OS.
186. Unlike many other trading funds, the UKHO receives very little income from the public sector. Funding from the Ministry of Defence in 2013/14 was

²⁵⁰ See the UKHO website <https://www.gov.uk/government/organisations/uk-hydrographic-office/about>

²⁵¹ Ibid.

²⁵² As stated in the UKHO's Public Task Statement, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/336499/UKHO-Public-Task.pdf.

£11.9m (slightly below the previous year's level) and represents less than 9% of its turnover.²⁵³

Commercial activities

187. In addition to its public duties, the UKHO is responsible for 'developing profitable business streams through the supply of nautical products and services.'²⁵⁴ Admiralty Holdings Limited (AHL), a private limited company, was established during 2002/2003 as 'an additional vehicle for commercial activities'²⁵⁵ AHL is managed by the UKHO on behalf of the Secretary of State for Defence, who owns 100% of the company. Products and services are sold 'mainly through a global selective distribution network ... made up of knowledgeable, professional and experienced organisations and companies.'²⁵⁶
188. The UKHO receives commercial income from traditional publication of paper charts and its more recently developed suite of Admiralty digital products. In 2013-14, combined income from commercial sales (which comprise sales of paper charts and publications, digital products and data licensing) was £118.69m.²⁵⁷ This is a substantial increase over the income from commercial sales of £70.86m in 2006/07.²⁵⁸ By contrast, sales to the MOD have remained fairly constant, and now over 90% of the UKHO's income comes from commercial sales.

²⁵³ UKHO, 2014, 'Annual Report and Accounts 2013/14', p41, <https://www.gov.uk/government/organisations/uk-hydrographic-office/about>

²⁵⁴ See the UKHO website: <https://www.gov.uk/government/organisations/uk-hydrographic-office/about>

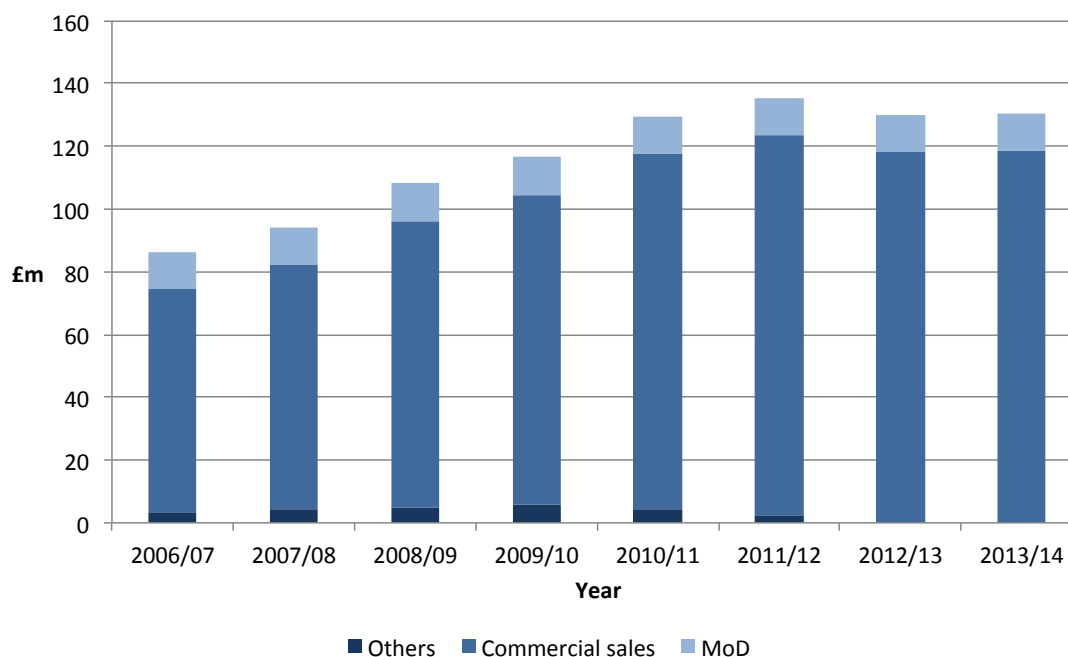
²⁵⁵ Ministry of Defence, 2007, 'United Kingdom Hydrographic Office Structural And Ownership Options Study, Executive Summary', p 2, <http://www.freeourdata.org.uk/docs/UKHOexecsummary.pdf>

²⁵⁶ See http://www.ukho.gov.uk/AdmiraltyPartners/Documents/Distributor_App_Quest.pdf

²⁵⁷ UKHO, 2014, 'Annual Report and Accounts 2013/14', p41, <https://www.gov.uk/government/organisations/uk-hydrographic-office/about>

²⁵⁸ UKHO, 2007, 'Annual Report and Accounts', p40, <https://www.gov.uk/government/organisations/uk-hydrographic-office/about#corporate-reports>

Figure 3: UKHO income



Source: UKHO annual reports and accounts, available at: <https://www.gov.uk/government/organisations/uk-hydrographic-office/about#corporate-reports>

189. The growth in commercial revenue is the result of the UKHO’s development of new digital products and increasing demand for these. The UKHO’s flagship digital chart product, the Admiralty Vector Chart Service (AVCS), an integrated global set of electronic navigational charts covering the main shipping routes and ports, was launched in 2007/08. In 2010, the AVCS was ‘fast becoming the ‘official’ product of choice for mariners...utilised by 5% of the world’s shipping fleet.’ By the end of the financial year 2010/11, ‘AVCS was used by the majority of SOLAS vessels ... navigating digitally’ at that time.²⁵⁹ In 2013/14 the UKHO delivered digital products at a greater pace than all previous years, using for examples QR codes on its paper charts that allow users to link directly to web-based services.²⁶⁰ A significant number of flag-states now approve of the Admiralty Digital Publications (ADPs) as meeting SOLAS requirements. UKHO is also making its publications available in eBook form as e-Nautical Publications (e-NP)²⁶¹

190. The strong growth of commercial income is reflected in a substantial increase in ROCE. The UKHO has constantly exceeded its target of a rolling three-year

²⁵⁹ UKHO, 2011, ‘Annual Report and Accounts 2010/11’, p4, <https://www.gov.uk/government/organisations/uk-hydrographic-office/about>

²⁶⁰ Ibid.

²⁶¹ See <http://www.admiralty.co.uk/Pages/products-planning.aspx>

(or later five-year) average of 9%, but ROCE increased from around 14% in 2007/08 to around 24% in 2008/09 and 34% in 2009/10.

Information made available for re-use

191. The UKHO supplies for re-use survey data from the Royal Navy and the Maritime and Coastguard Agency (except classified data) on behalf of those organisations, though it does not own the IPR in that data. Previously licensed for a charge, this data is now released under OGL as Open Data. We understand from the UKHO that the move towards data being provided under OGL did not have a big income impact as less than 5% of its revenue came from data licensing for re-use.
192. For other data that they might require in order to create viable products, re-users have to enter into separate licensing arrangements with other hydrographic offices. The UKHO licences data on behalf of ten other nations' hydrographic offices, granting licences that have the same basic terms and conditions as its own licences (and, in particular, have the same charging mechanism), but with licence fees and warranties/liability terms set by the respective national hydrographic offices. This is in different from the case of the Met Office, where observational data are shared under multi-lateral agreements and can be made available for re-use. Where the UKHO cannot license on behalf of third parties, the re-user will have to reach an agreement with those third parties directly, which can be can be a complex and long process.
193. The UKHO owns the IPR in the charts data and the publications it issues and licenses these for use/re-use at a charge. Where the UKHO data includes both its IPR and third party IPR, licensees only have permission to re-use what is covered by the UKHO's IPR and have to seek the permission of the owners of complementary IPR if they wish to re-use their information.
194. The UKHO licenses information for free for non-commercial and low value-commercial purposes, where 'low value commercial' captures cases where revenue from re-use is below £10,000 per annum²⁶² or where licence fees for the UKHO would be less than £200/year. Products and services created with information provided under non-commercial and low-value commercial licence must not be used for navigational purposes and must clearly identify this limitation.

²⁶² The revenue threshold for identification of low-value commercial use was raised from a previous value of £3,000 to the current value of £10,000 in 2009. The UKHO told us that this was for efficiency reasons, as it became clear that the lower threshold would imply having to review many proposals for re-use which would ultimately not generate sufficient revenue to cover the cost of doing so.

195. Commercial licences have terms that depend on the specific purpose for which the information will be used, distinguishing between '[c]ommercial publications and merchandise (excluding web-based products and services) intended for non-navigational purposes; commercial web-based products and services or downloading to a handheld device intended for non-navigational purposes by Leisure and Recreational users; navigational products and services for use by Professional users and/or Leisure and Recreational users; and commercial products and services intended for the non-navigational, scientific, academic, technical or consultancy purposes of the end-user including limited non-commercial end-user re-use rights.'²⁶³

Compliance with CUPI principles

Changes since CUPI

196. The UKHO told us that, in its view, much has changed in relation to its licensing activity since the OFT CUPI work, but that probably little can be attributed to this particular study. For example, making information for which previously charges were levied available under OGL is mostly attributed to the Open Data agenda, the Guardian's 'Free Our Data' campaign and political climate rather than any developments related to the CUPI study.
197. However, the UKHO also told us that the further work triggered by the CUPI study (in particular its involvement in the Cambridge study) helped it better to understand the extent to which its information could be classified as refined/unrefined and the implications of having IPRs owned by others incorporated in its products. The UKHO believes that its efforts to calculate the cost of obtaining information in support of the Cambridge study resulted in its licence fee calculations becoming more transparent, though as much this work had been conducted internally, the link between the CUPI study, the Cambridge study and the better understanding of its cost structure is not directly visible.
198. The Action Plan submitted by the UKHO suggests that a number of changes were made to licensing as a result of the its objective of making continuing improvements to its practices; therefore these changes were not necessarily a direct result of the CUPI study. The Action Plan highlighted how the UKHO was already following good practice, eg by making '[a]ll 'unrefined' UK Hydrographic Office information created as part of its public task... available for re-use'. The UKHO did however note in its action plan that consultation with licensees had identified areas where it could make further improvements, which included expanding the qualification criteria for a free licence, reviewing

²⁶³ See <http://www.ukho.gov.uk/copyright/index.aspx#licenceagreementtemplates>

its website to provide better explanations of what information was available, improving the licensing process by minimising the administrative burden and introducing account managers and assessing the case for clarifying its public task jointly with the MOD in order to reduce uncertainty.

199. Since the CUPI study, the UKHO has moved from royalties calculated on the basis of revenues earned by re-users to per-unit payments in 2010 for publications data for re-use.²⁶⁴ A fixed fee payable per product is calculated on the basis of the amount and type of UKHO material included in the re-users product, reflecting geographic coverage approximated to a number of map tiles. Licence fees due are then simply calculated by multiplying this fee by the number of sales made in an accounting period. The pricing formula is clearly set out in the template licence agreement available on UKHO's website.²⁶⁵ The UKHO told us that this change was driven by concerns that the previous calculation method could lead to discrimination as two re-users using the same data for the same purpose, selling the same quantity of end-product but charging different prices to end-users would pay different amounts to the UKHO. The UKHO considered this to be incompatible with the PSI directive.
200. Unitary licence fees for re-use of products such as charts and publications were reduced a few years ago, but we understand that this was because of increasing volumes rather than changes in the formula for price calculation or work conducted in support of the Cambridge study.
201. While the UKHO does not adopt separation in its accounts, it has demonstrated to OPSI 'that its commercial products are subject to the same scale of licence fees as those which apply to external re-users.'²⁶⁶

Separation of public sector and commercial activities

202. There has been no significant change to the separation of activities since the CUPI study.

Definition of public task

203. The UKHO has clearly set out its public task in a brief statement. It comprises:
- satisfying the SOLAS obligations delegated to the UKHO;

²⁶⁴ Such a new pricing model had already been implemented in 2005 for chart data.

²⁶⁵ See <http://www.ukho.gov.uk/copyright/index.aspx#Commerciallicencefees>

²⁶⁶ OPSI, 2014, 'Information Fair Trader Scheme Report, UK Hydrographic Office', p. 10, <http://www.nationalarchives.gov.uk/documents/information-management/ukho-ifts-report.pdf>

- supporting the UK National Security Strategy;
- representing and advising the UK Government; and
- complying ‘with all relevant legislation including the Public Records Act (including as a Place of Deposit for hydrographic records) and the INSPIRE (Infrastructure for Spatial Information in the European Community) Regulations 2009.)’²⁶⁷

204. It is not clear to us to what extent stakeholders were consulted on this specification of the public task, but it would seem to be limited to activities which cannot be undertaken by commercial competitors.

Complaints and complaint handling

205. We understand that the UKHO receives few, if any, complaints about its licensing activities. The UKHO told us that this was not necessarily reflective of limited licensing activities, but more likely driven by the fact that it had a much stronger customer focus than many other hydrographic offices which are often part of the navy and do not have as much resources dedicated to proactive information licensing. By contrast, the UKHO has six people in its licensing team dedicated to its licensing activities.

206. In 2014, the UKHO received a ‘good’ assessment under the IFTS principle of Challenge because it OPSI found that it had in place ‘sound generic procedures in place for complaint handling.’²⁶⁸

Residual problems

207. The stakeholders we have engaged with in the course of this project have given us the impression that dealing with the UKHO is generally without problems (and that in this respect the UKHO compares very favourably against OS, which is considered broadly similar in terms of the information licensed). Only one stakeholder has expressed the view that licensing information from the UKHO is problematic, with obligations that are ‘arcane’ and complex, though this may simply reflect the fact that further agreements may be needed owing to the large extent to which the UKHO’s products contain third party IPRs.

²⁶⁷ As stated in the UKHO’s Public Task Statement,

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/336499/UKHO-Public-Task.pdf .

²⁶⁸ OPSI, 2014, ‘Information Fair Trader Scheme Report, UK Hydrographic Office’, pp. 5, 11 and 12,

<http://www.nationalarchives.gov.uk/documents/information-management/ukho-ifts-report.pdf>

Driver and Vehicles Licensing Agency

Overview

208. The Driver and Vehicles Licensing Agency (DVLA) is an executive agency, sponsored by the Department for Transport. The DVLA maintains registers of drivers in Great Britain and vehicles in UK with the aim of improving road safety, reducing vehicle related crime, supporting environmental initiatives and limiting vehicle tax evasion. The DVLA is also responsible for the collection of vehicle excise duty, the sale of personalised vehicle registration marks commercially to consumers, and for a range of data products and services including the sale of anonymised and bulk datasets.²⁶⁹
209. The DVLA was a trading fund at the time of the CUPI study, though subsequently its trading fund status was revoked on 1 April 2011; this was a technical accounting decision linked to DVLA's status as a tax collecting body and had little impact on DVLA's approach to the sale of anonymised data.²⁷⁰ The DVLA continues to be expected to recover its costs in line with Managing Public Money principles.²⁷¹ However, licensing never generated significant revenue, compared with the DVLA's other revenue streams, and the DVLA told us that it did not and does not seek to compete with the private sector in any information-related services.

Role of PSIH and description of information held

210. According to the DVLA's information charter its 'key purpose' is to '[k]eep complete and accurate registers of drivers and vehicles, and make them accessible and flexible as possible to those who have the rights to use them'.²⁷²
211. In October 2014 the DVLA held over 45 million driver records and over 37 million vehicle records.²⁷³ Records are updated to reflect changes as required, for example, to maintain records of driver endorsements, disqualifications and medical conditions in the case of the register of drivers.
212. The DVLA's registers of drivers and vehicles are made available to public bodies such as the police, Government departments, TfL and LAs when

²⁶⁹ See <https://www.gov.uk/government/organisations/driver-and-vehicle-licensing-agency/about>

²⁷⁰ DVLA, 2012, 'Annual Report & Accounts 2011-12', p 42, <https://www.gov.uk/government/collections/dvla-annual-reports-and-accounts>

²⁷¹ OPSI, 2011, 'Information Fair Trader Scheme Report DVLA', p 8, <http://www.nationalarchives.gov.uk/documents/information-management/dvla-ifts-report.pdf>

²⁷² DVLA, 2014, Information Charter, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/207908/Information_charter.pdf

²⁷³ <https://www.gov.uk/government/news/lesley-cowley-obe-appointed-as-chair-of-dvla>

dealing with vehicle-related crime.²⁷⁴ The private sector also uses the DVLA to obtain accurate information for insurance purposes, parking enforcement, financial checks etc. Requests for such information need to be backed by reasonable grounds or require the consent of the individual concerned (eg in relation to releasing driving entitlement and prosecution information from its drivers database to third parties for insurance purposes).²⁷⁵

Public activities

213. The DVLA's public activities comprise:

- Maintenance of its driver and vehicle databases and services, release of information from its registers where allowed in legislation and services to other public bodies (more widely across Government). These are funded from fees and cost recovery charges.
- Collection and enforcement of vehicle excise duty ('VED', or Road Tax), which is covered by DfT funding.

214. Where permitted or required by law, the DVLA shares data with the police and other public bodies. The DVLA has a number of services through which it makes this data available to the public sector, including:²⁷⁶

- *Web Enabled Enquiry (WEE)*, 'a 24/7, online service ... available to Local Authorities for the purposes of accessing vehicle keeper information for the investigation of offences relating to the environment where a vehicle is involved. There are no transaction charges.'
- *Electronic and Paper Vehicle Record Enquiries*, a service providing 'vehicle keeper information for a specific date of event. Organisations need to be contracted with DVLA and also meet 'Reasonable Cause' criteria'.²⁷⁷ The service is available to LAs and other public sector bodies for a reduced fee.

²⁷⁴ DVLA, 2015, 'Who DVLA Shares Data With',

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/371688/5.11.14_Volumes_v1.18web.pdf

²⁷⁵ Ibid,

²⁷⁶ All quotes and data from DVLA, 2015, 'Who DVLA Shares Data With',

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/371688/5.11.14_Volumes_v1.18web.pdf

²⁷⁷ 'In DVLA's view, reasonable cause relates to incidents with liability. These can include matters of road safety, or events occurring as a direct consequence of the use of a vehicle. Circumstances that have been judged to meet the reasonable cause criteria include safety recalls by manufacturers, minor hit and run incidents not warranting a full police investigation, housing associations dealing with abandoned vehicles, the enforcement of parking restrictions on private land and insurance companies dealing with accidents and investigating fraud.'

DVLA, 'Release of information from DVLA's registers,

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/390088/Website-Release_of_information_from_DVLA__2_.pdf

- *Driver Licence Check Service (DLC)*, ‘an online 24/7 service ... available to Central Government Departments and Local Authorities for the purposes of checking the entitlement to drive of employees who drive during the course of their employment. All enquiries are subject to explicit consent being obtained from the driver. There is a charge of £1 per enquiry.’
- *Driver Validation Service (DVS)*, ‘a 24/7 online driver entitlement checking service ... available to DVLA’s approved data partner organisations that have a legal gateway to receive this information. There are no transaction charges.’ The organisations include various public bodies.

215. The DVLA also collects over £6 billion a year in VED, which it pays to the Exchequer. The DVLA receives funding from the Department for Transport to cover the full costs of collecting and enforcing VED.²⁷⁸

Commercial activities

216. The DVLA earns commercial income from the sale of personalised registration marks to the public. The DVLA retains some of this income to recover the costs associated with providing this service, but it pays the rest of the income directly to HMT.

217. The DVLA’s use of its driver and vehicles databases generates a small amount of commercial income by licensing some of this data directly to commercial customers (discussed below). The DVLA does not however seek to compete with the private sector in any information-related services. Licensing PSI for commercial re-use income represents a very small share or around 0.4% of the total income generated by the DVLA.²⁷⁹

²⁷⁸ ‘An impact of the revocation is that the Agency no longer receives SLA funding for its VED collection and enforcement activities, but in its place receives supply funding voted by Parliament in the Supply Estimate for the Department for Transport (DfT). This funding is brought into account in the Statement of changes in taxpayers’ equity.’ (DVLA, 2012, ‘Annual Report & Accounts 2011-12’, p 42 and 100, <https://www.gov.uk/government/collections/dvla-annual-reports-and-accounts>) ‘Under the Clear Line of Sight reforms which came into effect from 2011-12 and align [Supply] Estimates, budgets and accounts, Parliament gives statutory authority for the consumption of resources and capital and for cash to be drawn from the Consolidated Fund (the government’s general bank account at the Bank of England) by Acts of Parliament known as Supply and Appropriation Acts.’ <https://www.gov.uk/government/collections/hmt-main-estimates>

²⁷⁹ The figure of 0.4% has been provided by the DVLA. According to OPSI, ‘of the DVLA’s ‘overall revenue from vote funding and statutory and non-statutory fees, a small proportion, about two per cent, accrues from commercial re-use’ (OPSI, 2011, ‘Information Fair Trader Scheme Report DVLA’, p 3), <http://www.nationalarchives.gov.uk/documents/information-management/dvla-ifts-report.pdf>

Information made available for re-use

218. The DVLA provides the following information services on a case-by-case basis:²⁸⁰

- *Electronic and paper vehicle enquiries* are available to commercial firms who are contracted with DVLA and meet 'Reasonable Cause' criteria.²⁸¹ Most enquiries are received from parking companies and there is a charge of £2.50 per enquiry.²⁸²
- *Electronic Driver Entitlement Checking Service (EDECS)*, 'available to commercial organisations for carrying out enquiries on a driver's entitlement to drive'. The service may only be used for purposes related to road safety. The charge is £1.50 per enquiry'.
- *Driver Licence Validation Service (DLV)*, a paper-based service that 'enables customers to obtain Driver Licence entitlement information ... available to organisations who can provide a demonstrable business need'. Information is disclosed only if the individual concerned has provided written consent. There is a charge of £5.00 per enquiry.

219. The DVLA also provides two datasets under licence for commercial re-use: anonymised data and bulk data.

220. Anonymised data includes 30 fields of vehicle information such as make, model and a partial postcode. Anonymised data does not include vehicle-identifying information such as the Vehicle Registration number (VRN) and Vehicle Identification Number (VIN) as these are classed as personal information. Furthermore, postcodes are not included in full. Customers receive monthly keeper change data and quarterly updates at the end of July, October, January and April via encrypted CD-ROM and DVD.²⁸³

²⁸⁰ All quotes and data from, unless noted otherwise from DVLA, 2015, 'Who DVLA Shares Data With', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/371688/5.11.14_Volumes_v1.18web.pdf

²⁸¹ 'In DVLA's view, reasonable cause relates to incidents with liability. These can include matters of road safety, or events occurring as a direct consequence of the use of a vehicle. Circumstances that have been judged to meet the reasonable cause criteria include safety recalls by manufacturers, minor hit and run incidents not warranting a full police investigation, housing associations dealing with abandoned vehicles, the enforcement of parking restrictions on private land and insurance companies dealing with accidents and investigating fraud.' DVLA, 'Release of information from DVLA's registers', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/390088/Website-Release_of_information_from_DVLA__2_.pdf

²⁸² We understand that these services are loss-making at the charges currently levied and that the DVLA has faced calls from the Transport Select Committee to increase its prices.

²⁸³ DVLA, 2014, 'Anonymised Data', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/275458/V995_Anonymised_Data_Brochure__22.01.14_.pdf

221. Anonymised data is priced on a cost recovery basis plus a margin for re-investment. The DVLA's Anonymised dataset at present generates a 5% surplus.²⁸⁴ Charges for the anonymised dataset were reduced from around £100k at the time of the CUPI study to around £60k per annum following a financial review, which found that the new price was more reflective of cost. The Anonymised dataset is currently licensed by six companies – one more than at the time of the CUPI study. The majority of the six companies licensing the DVLA's Anonymised dataset are marketing consultancy firms providing market intelligence services.²⁸⁵
222. Bulk data covers information that allows buyers to check whether a particular vehicle is genuine (or for other purposes). Records consist of 47 fields, including vehicle identifying information (VRN and VIN), but do not include keeper name and address details. Bulk data provision includes a complete scan of the vehicle database every six months (January and July of each year), which 'gives a snapshot of each record excluding details of vehicles that have been unlicensed or not declared off road (SORN) for over a year'. First registration data is provided on a monthly basis, and customers receive a weekly update covering cherished transfer and keeper change data.²⁸⁶ According to the DVLA, this information can shield motorists from the risks of purchasing a vehicle that has been cloned, stolen or written off, and it can help to verify the mileage and value of the vehicle.²⁸⁷
223. The charge for bulk data at the time of the CUPI study was £85k per annum (plus VAT). The market has remained stable despite charges increasing slightly since then to reflect an increase in IT costs. Bulk data is currently available on a commercial re-sale licence of £96k per annum (plus VAT) and is understood to be licensed by eight organisations.²⁸⁸ The DVLA explicitly refers potential re-users to the option of seeking the data they require from one of six licensed companies listed on the DVLA bulk data brochure²⁸⁹, and

²⁸⁴ Under HMT Guidelines, the surplus earned should reflect the risk involved in producing and releasing the data, but should not exceed 15%. Ibid.

²⁸⁵ For example, Experian (<http://www.experian.co.uk/automotive/index.html>) and GMAP Consulting (<http://www.callcredit.co.uk/products-and-services/market-analysis-and-location-planning/local-area-datasets/dvla-data>).

²⁸⁶ *'The data is released under the provision of Regulation 27 of the Road Vehicle (Registration and Licensing) Regulations 2002. In this context the Agency is prepared to release data in bulk, to underpin vehicle check databases which the public and others may refer to, to improve road safety, to aid consumer protection and to deter vehicle theft. Companies who wish to apply for the data must be able to demonstrate reasonable cause'* DVLA, 2013, 'Bulk Data', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/253211/V995X1_Bulk_Data_Brochure__18.10.13_.pdf

²⁸⁷ See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/390088/Website-Release_of_information_from_DVLA__2_.pdf

²⁸⁸ Open Data User Group, 2013, 'Driver and Vehicle Licensing Agency (DVLA) Bulk Data', http://data.gov.uk/sites/default/files/20130816%20DVLA%20Data%20final%20%281%29_11.pdf

²⁸⁹ According to ODUG, two of the current licensees wish to remain anonymous (see ODUG, op.cit.)

we understand that this option is used by firms such as Total Car Check in order to achieve usage-dependent pricing, as opposed to fixed pricing.

224. We understand from the DVLA that the bulk data licence charge is set to ensure that the costs incurred in providing the database scans and the regular updates are covered. However, as OPSI noted, whilst the DVLA 'has the capability to model charges and apportion costs with a high degree of precision and it does this where it considers the sums of money involved warrant it' in the case of bulk data the organisation 'has taken a less scientific approach, gauging its pricing according to what the existing market will bear. As such, it has increased its prices to take into account the significant sums of money invested in its IT infrastructure and database development, but not to the extent that any existing customers have been barred from entering the market'.²⁹⁰
225. At the time of the CUPi study four of the bulk data customers received mileage data, which consists of number plate and mileage information only. The Mileage service is still provided to three customers. This data is supplied via e-mail on a daily basis. The price is relatively low and has not changed since 2006; terms of use and dataset format are also unchanged.
226. The DVLA does not currently publish any datasets on data.gov.uk on OGL terms.

Compliance with CUPi principles

Changes since CUPi

227. Whilst the DVLA took the view that it was somewhat peripheral to the CUPi study, some respondents to the OFT's business survey expressed concerns about the accuracy and formatting – and hence usability – of DVLA data. In response to this point the DVLA noted that the accuracy of its information was related directly to the accuracy of information provided to it by the public.²⁹¹
228. In terms of the formatting and usability of data, the DVLA operates within the constraints of its legacy IT system. For example, the DVLA has told us that the vehicle database uses 'flat' records rather than a relational database, which means that the only option of making data available is through periodic full scans, which explains both the cost and the fact that the DVLA is not able to provide 'pay-per-click' access to data. The DVLA is striving to improve its

²⁹⁰ OPSI, 2008, Information Fair Trader Scheme DVLA, p 9, <http://webarchive.nationalarchives.gov.uk/20090416182450/http://www.opsi.gov.uk/ifts/dvla-ifts-report.pdf>

²⁹¹ See footnote 108, OFT, 2006, 'The commercial use of public information (CUPi)', p 21, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>

technical capabilities to the benefit of its users, as illustrated by the new platform for driver data that allows real-time interrogation. The DVLA has also promoted innovative ways of making use of its data (eg through a recent 'hackathon' allowing developers to explore new possibilities). These changes are likely to be a result of technological change rather than the CUPI study.

229. In any case, concerns about data protection and privacy inevitably limit what data can be released. The DVLA also noted that concerns about mis-use of data need to be taken into consideration. For example, in the context of ODUG's call for bulk data to be released as Open Data, the DVLA noted that releasing information such as the VIN could facilitate criminal activity such as car cloning. Whilst ODUG noted that this information is visible on many vehicles, the DVLA's view is that releasing such information as part of an unrestricted bulk data download would significantly increase the potential for mis-use.
230. Furthermore, the OFT's business survey found some suggestions that the DVLA's charges were too high.²⁹² The DVLA's approach to pricing has not changed since the CUPI study, and we have been told that prices are constrained by the service charges under the DVLA's legacy IT contract. We understand that this contract will end in 2015 and it is possible that costs will be reduced thereafter. The DVLA would seek to pass on any efficiencies to customers.

Separation of public sector and commercial activities

231. As noted above, the DVLA is not engaged in any PSI-related commercial activities other than providing access to its registers on a case-by-case basis and licensing of a vehicle-related data for commercial re-use. According to OPSI, in setting prices, 'DVLA uses the Treasury guidance on fees, estimating the cost of provision across its services with a margin for investment according to risk level and fluctuations between estimates and actuals. The DVLA does not look at re-use charges as a separate category'.²⁹³

Definition of public task

232. The DVLA's information charter sets out the organisation's 'core purpose', which covers the full range of activities that have been described.²⁹⁴ These core purposes comprise issuing licences to drivers and maintaining their

²⁹² See paragraph 5.30, OFT, 2006, 'Annexe B, Survey of businesses that use public sector information', p 41, <http://www.epractice.eu/files/media/media2564.pdf>

²⁹³ OPSI, 2011, 'Information Fair Trader Scheme Report DVLA', p 10, <http://www.nationalarchives.gov.uk/documents/information-management/dvla-ifts-report.pdf>

²⁹⁴ DVLA, 2014, Information Charter, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/207908/Information_charter.pdf

driving entitlements; issuing registration certificates to keepers of vehicles; maintaining records of licensed drivers and registered vehicles and driver endorsements, disqualifications and medical conditions; collecting and enforcing VED; assisting the police and intelligence authorities in dealing with vehicle-related crime; registering and issuing tachograph cards; issuing vehicle registration marks (and selling attractive ones); and selling anonymised data.

233. The DVLA sees these core purposes as equivalent to the concept of ‘public task’, but considers that ‘core purpose’ may be easier language to understand. We are not aware of any review of its core purpose, or any stakeholder consultation in drawing up the core purpose. However, we note that the core purpose does not seem to create any conflict with making available its information for re-use, and explicitly contain the sale of anonymised data as one of the agency’s core purposes.

Complaints and complaint handling

234. Since 2006, OPSI has only received one complaint regarding the DVLA. The complaint from Total Car Check (‘TCC’) was in relation to the scale of DVLA’s charges for its bulk dataset. OPSI advised TCC to complain to the DVLA in the first instance. The DVLA’s vehicle dataset is the key source of data for TCC, and TCC considered the fixed price of £96,000+VAT without any variable price option to limit the scope for smaller re-users to enter the market and develop innovative and attractively priced services.
235. TCC currently obtains information through one of the DVLA’s licensees. We understand that the DVLA initially objected to this, which has led to a series of discussions between TCC and the DVLA. As noted above, the DVLA now explicitly points potential re-users to six of its licensees as an alternative source of its information. At the same time, we understand that TCC had to set up a complex proxy system in order to be able to access the data on a call by call case in line with DVLA requirements.
236. We have been told by the DVLA that its ability to make data available under a usage-based charge is currently limited by the structure of the database and its legacy IT systems. However, the DVLA appears to accept the need of potential re-users for alternative pricing structures (and potentially demand for only a subset of the data fields it provides) and we understand that it is mindful of the issue. Access to some DVLA information at usage-based charges may therefore become available in the future.
237. Our understanding is that the DVLA’s approach to setting charges for data is to recover costs, the majority of which are fixed IT costs, including investment

costs. The prices charged by the DVLA are constrained by the fixed costs associated with its legacy long term IT contract.

Residual problems

238. The DVLA has been re-verified to the IFTS on two occasions since the CUI study (2008 and 2011). In the last re-verification, the DVLA received a 'good' assessment in relation to its complaints handling, and a 'satisfactory' assessment under all other IFTS principles. OPSI stressed that the release of DVLA data was constrained by the service charges required by its IT partner.²⁹⁵ However, as noted above, TCC has stated that the pricing of DVLA's bulk data has acted as a barrier to licensing this data directly.
239. One current licensee of DVLA's bulk data has expressed concerns with delays associated with requesting to use the data for new purposes that are not covered by the existing permitted purposes. These are based on interpretations of law (Road Safety Act) and tightly circumscribed. For any new use, the licensee has to ask permission through a formal process, which can take time. The DVLA responded in our interview that delays are often caused by the requirement to assess reasonable causes, but that it has worked to improve its processes so that this can be done much more quickly.
240. Furthermore, the same licensee stated that any attempt by it to make an admin process easier by capturing vehicle data electronically is generally blocked, which doesn't encourage innovation.
241. In our interview the DVLA was keen to emphasise its commitment to opening up data and encouraging re-use. It does recognise some potential to make vehicle data more widely available, and is working to address constraints arising from its legacy IT systems. In any case, data protection issues and concerns about the potential for mis-use (eg vehicle fraud) will need to be carefully considered.

Environment Agency

Overview

242. The Environment Agency is an executive non-departmental public body of the Department for Environment, Food & Rural Affairs ('DEFRA'). It was

²⁹⁵ OPSI, 2011, 'Information Fair Trader Scheme Report DVLA', p 9, <http://www.nationalarchives.gov.uk/documents/information-management/dvla-ifts-report.pdf>

established by the Environment Act 1995 and it is responsible for protecting and improving the environment in England.²⁹⁶

243. In 2013/14 the Agency's budget was around £1.2bn, up from around £1bn at the time of the CUPI study. It receives Government funding, primarily from DEFRA, some of which is ring-fenced for specific purposes (eg flood defence). It also receives income of around £400m per year from industry, eg through polluter-pays charges.
244. Though it is not a Crown body, the Agency is a member of the IFTS. It joined in 2004 as the first voluntary IFTS member.

Role of PSIH and description of information held

245. The Environment Act 1995 transferred a wide range of functions to the Environment Agency, including in relation to water resources management, pollution control, flood defence, waste regulation and disposal. The Act defines the Agency's principal aim to be 'to protect or enhance the environment, taken as a whole, as to make the contribution towards attaining the objective of achieving sustainable development'²⁹⁷.
246. The Environment Agency holds vast volumes of different types of environmental information related to each of its functions. For example, it holds information about the risk of flooding, historic flood data, the risk of erosion, peak river flows, water quality, marine and freshwater species, landfill sites, permit holders and consented discharges, elevation data (LIDAR), pollution incidents and dangerous substances.
247. With a few exceptions (eg third parties that offer historical land-use information and flood mapping products) the Agency is the only source for the majority of the types of information that it holds. Assembling and maintaining this information to the high requirements for accuracy, breadth and frequency of updates implicit in the Agency's core duty is generally costly, and particular datasets will often be created from multiple sources of information, through complex steps of data processing and manipulation.

Public activities

248. Providing information to third parties is one of the major functions of the Agency: under the Environmental Information Regulations 2004 all public

²⁹⁶ Until the responsibility for Wales was passed on to a newly formed body, Natural Resources Wales in 2013, the Environment Agency was also responsible for protecting and improving the environment in Wales.

²⁹⁷ Environment Act 1995, Chapter I, 4(1). Subsection (3) states that Ministers shall give guidance on the contribution considered appropriate for the Agency to make towards its objective.

authorities holding environmental information (widely defined) must ‘take reasonable steps to organize the information relevant to [their] functions with a view to the active and systematic dissemination to the public of the information’.²⁹⁸ Accurate and up-to-date information must be made available upon request within 20 working days (this may be extended to 40 days based on the complexity and volume of information requested). Requests may be refused only on certain grounds (eg when personal information is requested).

249. The Agency receives in the region of 45,000 requests for information per year. While detailed metrics are not available, the majority of these are understood to relate to specific local areas rather than being requests for bulk datasets. Only a fairly small minority of requests come from commercial organisations.²⁹⁹
250. The Agency is obliged by various pieces of legislation to provide direct access to its public registers, which include for example the registers of environmental permits, waste carriers, brokers and producers. It makes these freely available online. It also offers an online service known as What’s In Your Back Yard (‘WIYBY’), which allows users to browse interactive maps displaying various types of environmental information, such as risk of flooding, pollution and landfill information. WIYBY is a free service that is aimed at general public use. It is not intended for commercial purposes.
251. The Agency has recently been granted public funding to release the National Flood Risk Assessment dataset (‘NaFRA’) for free commercial use, to identify further candidate datasets for release as Open Data and to explore measures to enhance transparency.

Commercial activities

252. At the time of the CUI study, the Environment Agency offered its own property search report service (which had been launched in 2003). The Agency’s service competed directly with private companies such as Landmark, who licensed the Agency’s bulk data needed to produce environmental reports. This downstream market is understood to have been growing relatively rapidly at the time of the CUI study, and had given rise to competition concerns.³⁰⁰

²⁹⁸ Environmental Information Regulations 2004, 4(1)(b), http://www.legislation.gov.uk/uksi/2004/3391/pdfs/uksi_20043391_en.pdf

²⁹⁹ Within the public sector, the Agency shares information with other public bodies (formally and informally), generally free of charge.

³⁰⁰ In 2003, the OFT investigated a competition complaint from Landmark and Sitescope, who alleged that new charges and terms proposed by the Environment Agency constituted an abuse of a dominant position in the form of a margin squeeze. The OFT closed the case without finding sufficient evidence of a margin squeeze, which

253. The Environment Agency was the subject of a case study as part of the CUPi report, which discussed the property search service without finding major concerns, though commenting that the privatisation of those activities – which was then being considered – should promote fair competition with third parties. An IFTS report from 2006 found that the Agency was offering equivalent terms to commercial re-users as applied to its internal business, such that the property search service ‘demonstrate[d] that the EA [was] committed to treating its own internal business the same as its external customers.’³⁰¹
254. The Agency’s property search service was terminated in 2007. Our assessment of the decision indicates that this decision was not linked to the CUPi study, though the Agency told us that the study, together with the OFT’s previous work in the area, had helped to maintain awareness of competition issues and ensure that the service would not harm competition.
255. The Agency receives revenue from activities of a purely commercial nature when it has spare capacity and makes its resources available to third parties, for example laboratory services.

Information made available for re-use

256. The Agency licenses, and charges for, information for commercial re-use, largely to the property search and insurance markets. There are approximately 30-40 datasets that currently generate revenue, spanning a range of types of environmental information. The majority of revenue is property search-related. Though the precise revenues from licensing over time were not available, indications are that they have remained fairly stable in the range £2-5m per annum since the CUPi study. This is less than 1% of the Agency’s total budget. Similarly, accurate statistics on the number of licensees were not available. The Agency believes that there has been some increase in this number over time, though equally there have been some drop-outs caused by particular types of data being made available as Open Data.
257. Charges for information are not set to reflect costs. The Agency told us that any cost allocation exercise would be very problematic, for example because information used as an input overlaps between datasets and that there are large common costs across its data-related activities. In any case, the Agency believes that prices based on costs would be much higher than the current

may at least in part be due to ‘a significant reduction’ in proposed charges during the course of the investigation (see OFT, 2004, ‘Competition Act 1998 Competition case closure summaries’, p 3, http://www.epsplatform.eu/sites/default/files/ezpublish_media/OFT_2004.pdf).

³⁰¹ OPSI, 2006, ‘Environment Agency IFTS Re-verification Report’, paragraph 15.

levels, which would conflict with its objective actively to disseminate information. Instead, the Agency sets charges at a level that it believes neither distorts the market nor creates a barrier to its data being re-used.

258. The Agency also offers some datasets for free, including for commercial re-use, and has increasingly been moving towards an Open Data model, a trend primarily being driven by the Cabinet Office. Its presumption is that any new datasets that are released should be freely available.

Compliance with CUIPI principles

Changes since CUIPI

259. The CUIPI study had noted that the Agency could take a more pro-active approach towards making data available; specifically, it was noted that it did not publish a detailed catalogue of raw data that was available for re-use (though it did provide a list on request). Similar comments were made by OPSI in the 2006 IFTS report, published prior to the CUIPI report. In the CUIPI report itself, the Agency was quoted as saying that 'in response to the OFT's case study, it has sought to amend the way in which it makes information available for re-use', including by 'taking a pro-active approach to identifying information to be made available for re-use'.³⁰² In subsequent years, the Agency met this commitment by systematically identifying datasets that could be made available and publishing an Information for Re-Use Register on its website. The number of datasets included in this Register has expanded substantially since its first publication.
260. Another notable change has been the increase in the amount of information that is made available for free for commercial re-use and in downloadable, machine-readable form. The Agency now publishes over 100 of its datasets on data.gov.uk under the OGL and offers downloads on its Data Sharing portal.
261. The Agency offers a free three-month developer licence allowing evaluation use of its chargeable datasets. In addition, since the CUIPI study was published, the Environment Agency has worked to streamline and standardise its licensing model, reducing the number of licence types and making them easier to understand.
262. On the other hand, the Agency's approach to charging remains fundamentally unchanged. The CUIPI case study had found that the 'market price' basis for

³⁰² OFT, 2006, 'The commercial use of public sector information (CUIPI)', Box 6.8, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>

charges appeared to be ‘somewhat arbitrary’,³⁰³ though there is little evidence to suggest that the Agency’s pricing is unduly high, especially with its emerging Open Data strategy. IFTS reports also indicate that the Agency has made some progress in simplifying its pricing calculations and making these clearer for users.

263. The Agency at the time of the CUPI study already stated that it was taking steps to improve its licensing and maximise re-use, responding to previous IFTS reports that had raised similar points to those made in the CUPI study. Changes at the Agency are therefore not necessarily a response to the CUPI study, and the Agency told us that the CUPI study had little impact on its approach. It helped to maintain awareness of re-use issues, but many of the concerns were not thought to be relevant to the Environment Agency. Because it is not a trading fund, the unrefined/refined distinction did not resonate with it (particularly once it had stopped producing environmental reports), and it already aimed to maximise the reach of its information. Changes in licensing were part of an on-going process that was not driven by CUPI in particular, but rather was primarily seen as a way to make licensing less burdensome for the Agency, as well as for its customers.

Separation of public sector and commercial activities

264. Given that almost all of the Agency’s activities are related to statutory duties, as discussed below, there has been no change in the separation of activities.

Definition of public task

265. In the CUPI report, the OFT noted that all of the Environment Agency’s activities were ‘underpinned by some sort of statutory obligation’ and that it had ‘a wide definition of its statutory function that affords it some flexibility in what activities it could include under the term statutory obligation’.³⁰⁴ Similarly, OPSI found in 2009 that the Agency’s view of its public task was ‘closely tied to its statutory information access responsibilities and the requirement to share its data with other public bodies’,³⁰⁵ though it recommended at that time that the definition of the public task should be reviewed, with stakeholder

³⁰³ Jacob Glanville for the OFT, 2006, ‘Environment Agency case study’, paragraph 6.10, http://webarchive.nationalarchives.gov.uk/20090609003228/http://www.of.gov.uk/shared_of/reports/consumer_protection/oft861d.pdf

³⁰⁴ OFT, 2006, ‘The commercial use of public information (CUPI)’, p.82, <http://www.opsi.gov.uk/advice/poi/oft-cupi.pdf>

³⁰⁵ OPSI, 2009, ‘Environment Agency IFTS Report’, paragraph 40, <http://tna.europarchive.org/20111207154740/http://nationalarchives.gov.uk/documents/information-management/environment-agency-ifts-report.pdf>. OPSI also stated that ‘[t]he Environment Agency considered the question of its public task at the time when the PSI Regulations came into effect in 2005 and has a **published definition** [emphasis added]’, but it has not been possible to find any evidence of a public task definition having been published prior to 2014.

consultation. In 2013, OPSI found that work had been started in response to this recommendation, but not completed. It therefore made a high-priority recommendation for the Agency to 'reactivate the work it had begun on drafting a public task statement and subsequently publish the statement on its website'.

266. The public task definition was published in August 2014 and consists of an outline of the Agency's broad range of functions and their contribution to society and the economy. The statement specifies that in relation to access to and licensing of information '[n]early all the data that we collect and create is done so [sic] in accordance with our public task. The principal exception is where we use spare capacity of our laboratories to analyse samples for third parties on a commercial basis.'³⁰⁶
267. The 'everything but' structure of the statement implies that public task activities encompass the collection of data, the creation and maintenance of datasets, and the provision of any services, other than the exception noted above.³⁰⁷ The Agency told us that the statement was drafted without stakeholder consultation, but that it saw the statement as adequate for its purpose, did not regard it as controversial and would periodically review it.
268. Hypothetically, this leaves a possible point of contention that had been raised in the CUIP report, which found that '[a]n area of uncertainty is the correct classification of free website services such as What's In Your Back Yard and information where the Agency is not a sole supplier'³⁰⁸ (which may apply to historic landfill data and flood maps). With respect to WIYBY specifically, it was found that 'the Agency regards its production as part of its core task to progressively make its information available by electronic means but businesses see as a value-added operation which they can carry out if they have access to the underlying data'.³⁰⁹
269. The Agency acknowledges that there is some degree of overlap between WIYBY and services offered by the private sector that could be considered value-added, by licensees who pay (small) royalties to the Agency. Therefore, providing WIYBY for free to end-users might give rise to a margin squeeze concern as the Agency charges for access to some of the underlying bulk datasets. However, the Agency sees WIYBY as an activity that is required by

³⁰⁶ See <https://www.gov.uk/government/publications/environment-agency-performance-information-fair-trader-scheme/public-task-statement--2>

³⁰⁷ The Agency also told us that a very small amount of revenue is also accrued from non-public task LIDAR activity, which is another case of spare capacity being made available for third party use.

³⁰⁸ Jacob Glanville for the OFT, 2006, 'Environment Agency case study', paragraph 3.4, http://webarchive.nationalarchives.gov.uk/20090609003228/http://www.offt.gov.uk/shared_offt/reports/consumer_protection/oft861d.pdf

³⁰⁹ Ibid, paragraph 3.5.

its duties as the Environmental Information Regulations promote the 'active and systematic dissemination to the public of the information'³¹⁰ and WIYBY may reasonably be seen as an example of this.

270. Our evaluation has not revealed evidence of significant dissatisfaction or complaints related to the Environment Agency's public task.

Complaints and complaint handling

271. Information on internal complaints was not available as part of our evaluation. However, OPSI found in its latest IFTS assessment that, even though the corporate documents about complaint procedures had not been updated to reflect the potential role of OPSI, '[t]he Environment Agency has sound generic procedures in place for complaint handling'.³¹¹
272. OPSI has not investigated any complaints against the Environment Agency and has not received any such complaints in recent years.

Residual problems

273. Our evaluation does not suggest that there are major problems affecting the re-use of Environment Agency information.
274. Some anecdotal evidence suggests there is scope for improvement in the areas of licensing complexity and quality of service (eg in terms of delays), though this should be balanced against the need to prevent potential harmful mis-use of environmental information, and arguably against the effect of recent staff cuts at the Agency.
275. IFTS reports show that, despite receiving generally favourable assessments, the Agency has been slow in making improvements in some specific areas. This is illustrated by certain recommendations being carried forward from the 2009 IFTS report to the 2013 report, for example regarding the drafting of a public task statement and the publishing of template licences and pricing information online.

³¹⁰ Environmental Information Regulations 2004, 4(1)(b), http://www.legislation.gov.uk/ukxi/2004/3391/pdfs/ukxi_20043391_en.pdf

³¹¹ OPSI, 2013, 'Environment Agency IFTS Report', paragraph 60, <http://www.nationalarchives.gov.uk/documents/information-management/environment-agency-ifts-report.pdf>

ELGIN

Overview

276. 'ELGIN' is the trading name of Roadworks Information Limited, a private company that is both a PSI user and a provider of PSI to others. It is both a PSI user, collecting and aggregating roadworks data from various sources, and a provider of PSI to third parties. The National Archives describes ELGIN as 'a private organisation performing an important PSI function'.³¹² ELGIN/roadworks.org was featured in Deloitte's 2013 Market Assessment of Public Sector Information as an example of '[i]mproving access to fragmented information'.³¹³
277. ELGIN claims to deliver various benefits, including improved co-ordination between LAs³¹⁴, utilities and contractors that reduces the need for duplication of web-based systems and increases operational efficiency. Making available a single roadworks portal for LAs and third parties (eg utilities) enables 'tangible savings' for LAs, eg through more efficient coordination of roadworks, including across LA boundaries. Broader efficiency benefits are also identified, eg from reduced congestion on the road network.³¹⁵

Role of PSIH and description of information held

278. ELGIN collects and aggregates data from various sources, including the vast majority of LAs in England and Wales and makes this information available to third parties through an online portal (roadworks.org) and an API that allows re-use of the underlying data.
279. The Traffic Management Act ('TMA') 2004 requires LAs to make roadworks information publicly available through a register, though there is no obligation to provide the register in any particular form. ELGIN told us that there has been considerable variation in the ways in which LAs have complied with the requirement. For example, some have published the information in a PDF file, some in a Word file and some using online maps to display the information. In the past there have been authorities that did not make the information available online at all, though this is very rare nowadays.

³¹² See <http://www.elgin.org.uk/about-us/user-comments>

³¹³ Deloitte, 2013, 'Market Assessment of Public Sector Information', p. 206, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/198905/bis-13-743-market-assessment-of-public-sector-information.pdf

³¹⁴ For simplicity, in the context of this case study we refer to Local Highway Authorities as LAs.

³¹⁵ ELGIN's full cost-benefit analysis is available at <http://www.elgin.org.uk/pdf/roadworks.org-white-paper-v2-14032013>

280. LAs use a variety of software platforms to manage the roadworks notification process. Although the exchange of roadworks notices (eg between utilities and LAs) is governed by the ETON schema, which sets out a pre-defined technical specification of the fields that should be populated for each notice and guarantees a certain level of data consistency, ELGIN told us that there can still be substantial differences in the quality of information that is entered into these fields on particular occasions.
281. ELGIN, through aggregating and releasing information from an increasing number of LAs through its portal, appears de facto to be fulfilling the Government's commitment to release roadworks data in an open and standardised format under the OGL.³¹⁶ Although ELGIN told us that central Government had done little to support its efforts, perhaps for fear of appearing to support a private company initiative, and the company is not in any way supported by the respective departments, HMT and BIS reported in March 2012 on 'progress made' in releasing highways and traffic data stating that '[t]he Roadworks website has opened up access to highways and traffic data on Open Government Licence terms.'³¹⁷ The provision of this data now covers around 65 per cent of local authorities across England. The Government is working with the remaining local authorities to complete coverage and include other road performance data.³¹⁸ In December 2012 the next growth plan implementation update described the highways and traffic data objective as 'complete', noting that 'Highways Agency released data about operation of the Strategic Road network, including roadworks, congestion, current performance and access to traffic cameras. Local Highways Authorities released roadworks data through the ELGIN service that publishes data from over 80 per cent of local authorities.'³¹⁹

³¹⁶ These commitments were announced in July 2011, when the Government announced that alongside other new data releases '[d]ata on current and future roadworks on the Strategic Road Network [the part of the road network for which the Highways Agency is responsible] will be published from October 2011, and subject to consultation extended during 2012 to Local Authority Streetworks Registers maintained under statute' and that 'Real time data on the Strategic Road Network including incidents, speeds and congestion to be published from December 2011' (<https://www.gov.uk/government/news/letter-to-cabinet-ministers-on-transparency-and-open-data>). The commitment was mentioned again in the 2011 Autumn Statement. The Government said DfT would work with the Highways Agency, LAs and others to release a range of highways and traffic data, including on road works, under the OGL and in machine-readable formats. One specific commitment was to release roadworks data held by LAs, to be completed by December 2012. In line with these commitments, a new release of roadworks information from the Highways Agency was reported to have taken place in October 2011 and one from Network Rail was reported in October 2012. On the other hand, it was not clear how the commitment to release data held by LAs would be acted upon, since LAs were already obliged to make their roadworks registers available but faced no restrictions on how this was done.

³¹⁷ The meaning of this statement is unclear, given that ELGIN is a private company and the OGL is a tool for public sector bodies. Moreover, where ELGIN provides an API for commercial re-use of the underlying data, it reserves the right to impose a charge, which is clearly not equivalent to OGL terms.

³¹⁸ HMT and BIS, 2012, 'Plan for Growth: Implementation Update (March 2012)', p 19, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/210095/growth_implementation_update.pdf

³¹⁹ HMT and BIS, 2012, 'Plan for Growth: Implementation Update (December 2012)', p 18, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/210096/growth_implementation_update_dec2012.pdf

Information made available for re-use

282. ELGIN's core service is the roadworks.org portal, which provides a comprehensive view of roadworks, road closures and diversions, traffic incidents and other disruptions affecting the UK road network.
283. ELGIN also offers a Roadworks API, which allows developers and firms to utilise the roadworks portal's underlying data.
284. ELGIN's additional, 'value added' services include:
- a Traffic Management app – a web-based extension to the roadworks portal, allowing LAs to plan road closures and diversions and have these instantly published on the portal;
 - a Communications Management app – this aims to enhance statutory roadworks notices with greater detail and a wider reach; and
 - Journeymapper – a multi-modal transport portal that combines ELGIN's data with public transport data that TransportAPI (Placr) aggregates from various sources.

Compliance with CUIPI principles

Changes since CUIPI

285. Since the publication of the CUIPI report, ELGIN as a PSIH has increased the amount of PSI available, and made substantial improvements in the way in which this information is made provided. However, there is little evidence to link the improvement to the CUIPI study or to subsequent Government interventions. Rather, the improvements seem to have been primarily driven by ELGIN itself, through changes made to its business model.
286. The roadworks portal elgin.gov.uk already existed at the time of the CUIPI study, but was far from achieving national coverage. Archived webpages show that, by the end of 2009, the portal contained information from less than half of the LAs in England and Wales, with complete coverage only on certain areas. ELGIN told us that, at this time, all subscribing LAs that made their information available to the portal were required to pay a subscription fee.
287. ELGIN told us that it made a number of key changes following the change in ownership in 2011, when the roadworks portal, previously managed by a company called Jacobs Engineering, was sold to its management to establish Roadworks Information Limited (trading name 'ELGIN'). Specifically:

- it moved to a ‘freemium’ business model, which still gave incentives for LAs to pay and receive additional benefits,³²⁰ but also allowed LAs to have their current roadworks displayed on the portal for free;
- it re-launched on roadworks.org, using an improved Google Maps platform; and
- it hired former traffic managers from different parts of England and Wales, which helped informally to connect with new authorities and increase participation.

288. ELGIN told us that, thanks to these changes, it was able rapidly to increase the number of participating LAs, moving closer to the objective of delivering a comprehensive portal of roadworks information for England and Wales. Today, ELGIN aggregates information from the vast majority of Local Highway Authorities in England and Wales and a number of other organisations³²¹ to produce the largest single source of roadworks information in the UK. ELGIN’s software checks the databases of subscribing LAs at regular intervals and extracts any new information. This is combined with real-time information on incidents/accidents from various other sources.

289. In its capacity as a PSIH, ELGIN can be seen as attempting to set an example of good practice in information trading. It is unique as a private organisation with no public funding that voluntarily participates in IFTS Online. ELGIN has adopted public data principles based on the IFTS principles and is also voluntarily subject to a Guardianship and Scrutiny Committee that represents public sector stakeholders in the Highways sector.

Definition of public task

290. ELGIN has published a public task statement: ‘To create and curate a national (excluding Scotland and NI) roadworks database and free-to-view Roadworks Portal of statutory roadworks notices’.³²² The statement creates a clear distinction between ELGIN’s public task activities and its other activities, which it refers to as value-added services.

291. ELGIN has also published a charging policy that reflects the distinction between services drawn by its public task definition.

³²⁰ In particular, paying subscribers can have future roadworks displayed as well as current ones, which is especially useful information for utilities and might further improve the co-ordination of roadworks.

³²¹ At the time of writing the portal has secured the participation (or commitment to participate) of all but six LAs, and includes information from the Highways Agency, Transport for London, Transport Scotland, Traffic Wales, Network Rail, National Grid Gas, Wales & West Utilities, Northern Power Grid and Google.

³²² See <http://www.elgin.org.uk/roadworks-portal/public-data-principles-1>

- The roadworks portal is free to users and a freemium model applies for participating LAs. As paying subscribers, LAs can have planned roadworks shown as well as current ones, and receive other benefits such as a smartphone app.
- The aggregated roadworks API is free for non-commercial use and, at present, also for commercial use, though ELGIN ‘reserves the right to apply a reasonable charge to cover its investment in the data aggregation infrastructure, customisation, development and support’³²³ for the latter.
- Value added services (traffic management and other apps) are not subject to the public data principles and charging is at ELGIN’s discretion.

Residual problems

292. As a PSI user, ELGIN has experienced some difficulties that point to potential residual problems in the PSI market. These include barriers to the re-use of PSI held at local level, and concerns about the behaviour of trading funds that could have a detrimental impact on competition (though our evaluation does not attempt to conduct a conclusive assessment of this).

Problems with access to information

293. ELGIN told us that, while Open Data policy has been prominently articulated by central Government, the progress made by LAs in facilitating re-use has been patchy. Therefore, securing co-operation and aggregating data are still challenging for ELGIN. While Government claimed to be working with LAs to complete its Open Data objectives, ELGIN believes that in practice there is a strong ‘localism’ factor at play that mitigates against interventionism.

294. Though some LAs have made progress and technological developments have helped to some extent, there can still be barriers to re-use of PSI from these authorities. Barriers may be of various types, including technical barriers (eg IT systems and contracts lacking flexibility), a low-priority view of PSI/Open Data objectives at local level, and a reluctance to expose information to public scrutiny that might find such information to be of low quality.

295. In ELGIN’s view, LAs hold particularly valuable types of information for which there is currently no statutory obligation for a register to be made available (eg information about road closures and diversions). This information is not normally provided in re-usable form, and ELGIN considers this to be an

³²³ ELGIN, 2012, ‘ELGIN Charging Policy’, <http://www.elgin.org.uk/pdf/elgin-charging-policy-december-2012>. At the time of writing we understand that many firms are using the API and ELGIN has chosen to not exercise its option of charging for this.

example of valuable PSI not being made available for re-use; this was identified as a key source of detriment in the CUIP study.

296. Where information is made available, the heterogeneity in the approaches of different LAs to dealing with such information (eg the use of different IT systems) makes aggregation challenging.

Concerns about potential anti-competitive behaviour by other PSIHs

297. ELGIN has expressed concerns about potentially anti-competitive behaviour by GeoPlace – a joint venture between OS and local Government – and a ‘sponsoring’ Department of State (DfT) that could deprive it of access to a substantial portion of the information it aggregates to provide a comprehensive roadworks data.
298. GeoPlace produces a National Street Gazetteer database that is described as ‘the definitive reference system used in the notification process and the coordination of street works’.³²⁴ As part of its role as the custodian of this database, in 2011 GeoPlace took over the administration, maintenance, allocation and hosting of the Streetworks Data Capture Code List, for use in the ETON noticing process.³²⁵
299. A Data Co-operation Agreement between GeoPlace and councils in England and Wales, which is intended ‘to support the creation and maintenance of GeoPlace databases’³²⁶ includes a clause (6.1.6) that appears to allow the possibility of GeoPlace being made the **exclusive recipient** of particular types of information, including roadworks information.
300. In ELGIN’s view, there are clear indications that GeoPlace might wish to extend its activities into the provision of roadworks information, supported by the DfT:
- In December 2012, it was announced that GeoPlace was ‘opening up’ streetworks information with a new service.³²⁷ The Streetworks Signposting Service was ‘designed to assist the Department for Transport (DfT) to fulfil a requirement to make streetworks information more accessible’.³²⁸ This announcement seems to diverge from the HMT/BIS growth plan implementation update, also published in December 2012, which stated that the ELGIN service helped to complete the objective of

³²⁴ <http://www.thensg.org.uk/iansg/link.htm?nwid=82>

³²⁵ <http://www.thensg.org.uk/iansg/document.htm?targ=909>

³²⁶ <http://www.geoplace.co.uk/geoplace/link.htm?nwid=281>

³²⁷ <https://twitter.com/OrdnanceSurvey/status/279542114600251392>

³²⁸ <http://www.geoplace.co.uk/geoplace/document.htm?targ=1099>

releasing roadworks data. In practice, the Signposting Service on GeoPlace's NSG website provides external links to ELGIN's roadworks portal, though ELGIN's role is not acknowledged on the website (GeoPlace states that the service 'directly link[s] to the relevant highway authority streetworks register').³²⁹

- In March 2013, a Memorandum of Understanding came into effect between the Joint Authorities Group (JAG, which represents authorities in matters related to roadworks) and GeoPlace, under which GeoPlace can provide services to JAG members.³³⁰ The MoU does not appear to be publicly available. Then, in November 2013, GeoPlace announced an agreement 'to produce a quarterly performance scorecard analysing works on the road network' on behalf of the UK Highway Authorities and Utilities Committee (a partner of the JAG and advisor to the DfT).³³¹

301. In light of these ambitions, ELGIN is particularly concerned about the role played by the DfT in allegedly supporting GeoPlace, and about the aforementioned clause in the Data Co-operation Agreement, which could potentially foreclose access to crucial inputs for ELGIN if it made GeoPlace the exclusive recipient of roadworks data. ELGIN has repeatedly tried to have this clause repealed through representations to OPSI and OS/Geoplace – so far without success.

³²⁹ <http://www.geoplace.co.uk/geoplace/document.htm?targ=1099>

³³⁰ <http://www.geoplace.co.uk/geoplace/document.htm?targ=1123>

³³¹ <http://www.geoplace.co.uk/geoplace/document.htm?targ=1195>

Appendix C: Estimates of the value of PSI

Introduction

302. The OFT CUIPI study is one of a number of studies that have estimated the economic value of PSI. It included an estimate of the (then) current value of PSI in the UK, as well as an estimate of the potential value that would be achieved if the concerns that the OFT had identified were addressed.
303. When comparing these studies one can distinguish, at a high level, between two empirical approaches to estimation – bottom up and top down. It is important to differentiate also between estimates of the value of *all* PSI and estimates focusing on the value of particular types of PSI, such as geospatial information, or even focusing on particular uses or on specific datasets.
304. This appendix summarises the approach used in the CUIPI report and in other relevant studies. The focus is on estimates of the value of PSI in the UK, but some European-level studies will also be cited.
305. First, estimates of the current value of PSI are reviewed, including the total value of PSI and the value of particular types of PSI. Then, estimates of the potential value of PSI are discussed.

Estimating the current total value of PSI

306. An early estimate of the value of PSI was presented in a **European Commission** working paper in 1996, which estimated the value of geographic information as being in the order of €10bn for the entire European Union.³³²
307. **Pira International** conducted a major study of the current value of PSI in 2000.³³³ This study of *Commercial exploitation of Europe's PSI* was carried out at European level, but also included estimates for some individual Member States, including the UK. For the UK, the estimated value of PSI was €11.2bn, with lower and upper bounds of €4bn and €21.8bn respectively. For the EU as a whole, the estimate is €68.5bn – almost seven times the estimate from 1996 and amounting to 0.84% of total GDP across the then twelve member states.³³⁴
308. Pira's methodology for the UK was based on estimated investment costs incurred by Government (and any private sector costs, if these are considered

³³² http://www.ec-gis.org/copygi2000/gi2000/gi2000dd_.html#E38E3

³³³ http://www.epsiplatform.eu/sites/default/files/media_672%20full%20report.pdf

³³⁴ According to Eurostat, EU GDP in 2000 was €8,128.7bn (http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/documents/EC6-9-10-12%201970-2006.xls)

by the Government) in collecting PSI. The underlying idea was that, when investment decisions are made rationally, the benefits associated with the investment will exceed cost, and therefore investment costs provide a lower bound for the benefits. Available demand-side data was not deemed adequate to be used as part of the estimation for the UK, though it was used for some other countries.

309. The study also found that, in the UK, economic value was particularly concentrated in the geographical sector, 'reflecting the high profile of the UK in mapping and meteorological services'.
310. In 2006, **HELM and Zenc** produced a report on *Measuring European PSI Resources* (MEPSIR) for the European Commission.³³⁵ As part of the report, the authors estimated the size of the EU plus Norway market for PSI, based on survey data. From respondents' own estimates of the size of their domestic markets for PSI, the report finds that the market size based on PSIHS' responses is €5.7bn base value, €26.5bn upper limit, whereas based on re-users' responses it is €26.1bn base value, €47.8bn upper limit. An alternative approach seeks to measure the size of the market with reference to the turnover of PSI users that comes from PSI-related activities, less the money spent on acquiring the PSI. This gives a base value of €11.7bn, with an upper limit of €44.9bn. In summary, the estimates range from €10-48bn with a mean value around €27bn – substantially lower than the PIRA estimate.
311. In Annexe G of the OFT CUPi study in 2006, **DotEcon** estimated the economic value of PSI in the UK using a relatively conservative bottom-up approach.³³⁶ DotEcon made use of data collected by the OFT through an extensive survey of PSIHS, which had distinguished three groups:
- stratum 1: PSIHS with delegated authority to licence PSI, therefore including large trading funds such as OS; this also included the Environment Agency and British Geological Survey who were then voluntary IFTS members; overall, this stratum comprised 18 PSIHS of which 17 were included in the survey;
 - stratum 2: PSIHS licensing PSI under the authority of OPSI; The majority of these PSIHS were ministerial departments and typically licensed PSI for free; this stratum included 48 PSIHS of which 16 were surveyed; and

³³⁵ http://www.epsiplatform.eu/sites/default/files/ezpublish_media/MEPSIR%20Final%20Report.pdf

³³⁶

http://webarchive.nationalarchives.gov.uk/20140402142426/http://www.of.gov.uk/shared_of/reports/consumer_protection/of861g.pdf

- stratum 3: all other PSIHs; these were often smaller PSIHs who may not have made PSI available; 336 PSIHs were in this stratum, of which 130 were included in the survey.

312. DotEcon estimated the following components of net economic value:

- consumer surplus from revenue-generating PSI;
- consumer surplus from freely available PSI; and
- producer surplus.

313. The approach assumed linear demand throughout, meaning that consumer surplus could be estimated using the formula:

$$\frac{1}{2} \left(\frac{\text{Revenue}}{\text{Price elasticity}} \right)$$

314. To estimate consumer surplus from revenue-generating PSI:

- price elasticity assumptions were made for each stratum 1 PSIH and these values were used with available revenue data at an individual level to produce consumer surplus, which was then scaled up for revenues not reported in the sample;
- stratum 2 was omitted because it generated only a very small proportion of PSI revenue (less than 0.25%); and
- price elasticity assumptions were made for stratum 3 at group level for four broad types of PSI and these values were combined with revenues.

This gave an estimate of £502.3m.

315. To estimate consumer surplus from free PSI, which was predominantly raw PSI, the analysis focused on stratum 2. Since no revenue is generated by free PSI, an alternative approach was required to obtain a demand curve for raw PSI. Specifically:

- an estimated 'choke price' for raw PSI was derived by subtracting the actual price of value-added PSI (which tended to be the result of collecting and commenting on data that was otherwise available for free) from the imputed choke price for such data; as value-added data was competitively supplied, the price of such data was considered to be a good proxy for the cost incurred adding value; and

- it was assumed that the extent of usage of free PSI was around 19 times that of revenue-generating PSI, based on the fact that this was the ratio between the number of free-of-charge licences issued to PSIHs by OPSI and the number of value-added licences issued. This assumption determines the slope of the raw PSI demand curve relative to the value-added PSI demand curve.

This gave an estimate of at least £15.7m.

316. To estimate producer surplus, the approach uses data on individual revenues, target ROCE and actual ROCE from stratum 1 PSIHs. Producer surplus for each PSIH is estimated as the revenue that it generates over and above the revenue needed to meet its ROCE target, or zero in the case that the PSIH fails to exceed its target ROCE. This gave an estimate of £65.6m.
317. The total estimate of economic value was £583.5m.
318. In 2011, **Vickrey** produced a *Review on recent studies on PSI re-use and related market developments* for the European Commission.³³⁷ Reviewing a wide range of studies, Vickrey found that ‘all studies show relatively rapid growth in PSI-related markets’. The estimate of ‘aggregate direct and indirect economic impacts from PSI applications and use across the whole EU27 economy’ was €140bn. Around half of this value was driven by geospatial information. In an accompanying document to the 2011 Autumn Statement, the UK Government inferred from this estimate that PSI was worth in the region of £16bn a year for the UK.
319. In 2013, **Deloitte** produced a *Market assessment of public sector information* for BIS.³³⁸ The study included an estimate of the value of PSI based on a methodology adapted from the DotEcon study, though Deloitte noted that the figures are not comparable to the DotEcon estimates ‘due to differences in the scope of analysis and methodology used’.
320. To estimate consumer surplus from paid-for PSI, Deloitte used revenue data from the supply of PSI for nine large PSIHs. It made very similar assumptions to the DotEcon study about the price elasticity of demand and used this to estimate consumer surplus for these PSIHs. Results were then scaled up on the assumption that the nine PSIHs accounted for 70% of total PSIH revenue from the supply of PSI in the UK.
321. Deloitte’s methodology for estimating consumer surplus from free PSI was less similar to the DotEcon equivalent. Deloitte found that 2.7 million

³³⁷ <http://ec.europa.eu/digital-agenda/en/news/review-recent-studies-psi-re-use-and-related-market-developments>

³³⁸ <https://www.gov.uk/government/publications/public-sector-information-market-assessment>

downloads of free data had been made over a 12 month period from portals such as data.gov.uk. It assumed that two thirds of datasets – 1.8 million – were actually used or re-used. It then estimated an average willingness to pay for free PSI of £1300. Using these values it was then straightforward to estimate consumer surplus based on the assumption of linear demand. Deloitte also considered an alternative Cobb-Douglas demand curve and took an average of the linear and Cobb-Douglas estimates to produce the final estimates.

322. Deloitte's estimation of producer surplus followed the DotEcon approach based on ROCE, giving estimates for each of the nine large PSIHs that were then scaled up.
323. Deloitte also estimated 'indirect and induced value', a component that was not part of the DotEcon methodology. Deloitte applied multipliers to the estimate of producer surplus 'to consider the upstream business-to-business purchasing effects (indirect) and consumer spending effects (induced)'.
324. Deloitte estimated the consumer surplus from paid-for and free PSI to be £1.6bn, producer surplus to be £0.1bn, and indirect and induced value to be similarly £0.1bn, yielding a total value of PSI of £1.8bn.
325. In addition to the above estimates, Deloitte considered the wider societal value from use and re-use of PSI, as shown by selected case studies that pointed to benefits such as cost savings and time savings. Based on these case studies, Deloitte suggested that the total economic value of PSI might by far exceed the estimate of £1.8bn; a conservative estimate of this total value would be in excess of £5bn.

Estimating the value of particular types of PSI

326. **Oxera's** 1999 report into *The economic contribution of OS*³³⁹ estimated the value of OS's PSI with a value-added approach, since a willingness-to-pay analysis was not deemed feasible. The value-added approach is very indirect, in that it takes the value produced by a sector of the economy, estimates the proportion of that value that is reliant (to whatever degree) on OS products as input, and then attributes that proportion of the value to OS.
327. The analysis, based on 1996 data, finds that OS products and services contributed £79–£136bn of gross value added.

³³⁹ <http://www.gsdi docs.org/gsdiconf/GSDI-5/papers/Nick%20Land-paper-oxera-w97.pdf>

328. A 2003 study of *The economic benefit of the BGS* by **Roger Tym and Partners** used a similar methodology to the Oxera study and estimated the total value added of national output to which BGS contributes as £34-61bn.³⁴⁰
329. Contrasting the above values with some of the aforementioned estimates of the total value of PSI illustrates the clear contrast between top down methodologies (such as the value added approach) and bottom up methodologies.
330. In 2007, **PA Consulting** estimated *The Public Weather Service's contribution to the UK economy*.³⁴¹ In doing so, PA Consulting drew upon existing evidence from a national survey of the UK public, which had established the annual value of the Met Office to the public as £353.2m. Case studies based on three Government agencies indicated additional value of £260.5m. The study concluded that the overall value could be expected to be many times greater than these figures.
331. In 2010, **ConsultingWhere and ACIL Tasman** produced a report for the Local Government Association on *The value of geospatial information to local public service delivery in England and Wales*.³⁴² The report used case study-specific evidence and analysis as inputs into a proprietary model of general equilibrium to generate estimates of economic value. It found that 'GDP was approximately £320m higher in 2008-9 in England and Wales than would have been the case without adoption of geospatial information by local public services providers'.

Estimating the potential value of PSI

The OFT CUPI study

332. As part of the CUPI study, **DotEcon** produced a detriment analysis that estimated the potential additional value that PSI could have if the detriment were addressed. Three types of detriment were identified:
- type A – unduly high pricing;
 - type B – distortion of downstream competition; and
 - type C – failure to exploit PSI.
333. The size of type A detriment was estimated by comparing the consumer and producer surplus based on actual revenues with estimates based on the

³⁴⁰ <https://www.bgs.ac.uk/downloads/start.cfm?id=380>

³⁴¹ http://www.metoffice.gov.uk/media/pdf/h/o/PWSCG_benefits_report.pdf

³⁴² http://www.acilallen.com.au/cms_files/ACIL_Geospatial_UK.pdf

benchmark revenues that stratum 1 PSIHs would have had to achieve in order exactly to meet but not exceed ROCE targets. The detriment was then equal to the increase in consumer surplus from moving to the benchmark scenario, net of the loss in producer surplus, and estimated to be £18.6m.

334. The estimation of type B detriment relied on survey data showing PSIH's reported split of revenues between unrefined and downstream products. The methodology considered a hypothetical expansion in demand for unrefined PSI. This expansion was larger for strata and types of PSI where only a small proportion of revenue was coming from unrefined PSI, as this is suggestive of PSIHs restricting competition downstream. It was assumed that raw and value-added PSI had the same price elasticity of demand and that PSIHs would set prices to maintain the same level of revenue following the hypothetical expansion. On this basis, type B detriment was estimated as £136.8m.
335. The estimation of Type C detriment focused on stratum 3. It considered a hypothetical scenario where the proportion of stratum 3 PSIHs that commercialised PSI was 25%, rather than the actual 7%. It was assumed that new income-generating PSIHs would generate the same surplus as existing income-generating PSIHs, on average. On this basis, type C detriment was estimated as £364.5m.

The Cambridge study

336. Following the CUPPI study, **Pollock et al** (2008) were commissioned by BERR and HMT to conduct a study on *Models of public sector information provision via trading funds* ('the Cambridge study').³⁴³ The study considered the six largest trading funds by data provision: the Met Office, OS, the UK Hydrographic Office, Land Registry, Companies House and the Driver and Vehicle Licensing Agency. It evaluated the impact of moving to marginal cost pricing for products corresponding 'fairly closely' to the OFT's definition of unrefined information.
337. The authors used a relatively complex multivariate economic model. Assumptions were made about the values of certain general parameters such as elasticities of demand and a multiplier to adjust for likely underestimation of broader social benefits, eg due to innovation. Other values were derived from revenue and cost data provided by the PSIHs. On a case-by-case basis and depending on data availability, the authors considered which datasets were

³⁴³ <http://webarchive.nationalarchives.gov.uk/20090609003228/http://www.berr.gov.uk/files/file45136.pdf>

suitable for analysis for each PSIH and assumed that the charging policy for other products would remain unchanged.

338. The estimated values for each trading fund are summarised in the following table.

Table 20: Cambridge study estimates

PSIH	Gross benefits	Gross cost to Government	Net cost to Government*	Net benefits to society
Companies House	£2.6m	£946k	£681k	£1.9m
The Met Office	£1.2m	£390k	£260k	£1.03m
OS	£168m	£30m	£12m	£156m
UKHO	£1.08m	£854k	£744k	£338k
The Land Registry	£2.3m	£1.2m	£1.1m	£1.2m
DVLA	£4.3m	£1m	£582k	£3.7m
			Total:	£164m

*The net cost to Government is lower than the gross cost, for example because of increased tax revenues

Other studies

9.29 In a brief follow-up paper to the Cambridge study, **Pollock** (2011) estimates *Welfare gains from opening up public sector information in the UK*. The paper uses a simple formula derived from Pollock's previous work:

$$Gains = \frac{2}{5} F \lambda \varepsilon$$

Where F is the revenue under average cost (the current regime), λ is the 'multiplier' and ε is the elasticity of demand.

339. The value of F is assumed to be in the range £400-550m, based on the estimated revenues from the OFT CUPPI study.

340. Depending on the assumed values of λ and ε , middle range estimates give gains of approximately £1.6-2bn and upper end estimates give gains of approximately £4.5-6bn.

341. The **Vickrey** (2011) study estimated that improving access to PSI could lead to an additional €40bn of PSI-related activity across the EU27. **The National Archives**, in an Impact Assessment³⁴⁴ related to the amending PSI Directive, interpreted this as implying potential benefits of around £4.2bn for the UK.

³⁴⁴ <http://www.nationalarchives.gov.uk/documents/information-management/impact-assessment.pdf>

342. The National Archives also discussed the Pollock (2011) estimates, suggesting that the revenue base assumed should be smaller so as to exclude public sector demand, which may already be largely satiated through agreements such as the PSMA. In this case, the same approach produces a smaller estimate of benefits in the range £0.6-1bn.
343. Finally, after the Cambridge study, various other estimates have been produced of the benefits of releasing particular datasets for free (or priced at marginal cost, which may often be negligible). One example is a document entitled 'Public Data Group Business Case', released in response to an FOI request, which estimates costs and benefits of releasing particular datasets as open data for the four Public Data Group PSIHs.³⁴⁵ Another example is a report produced for BIS by ConsultingWhere and ACIL Tasman in 2013, estimating the value of OS OpenData.³⁴⁶ It found that OS OpenData would deliver a net £13-28.5m increase in GDP in 2016. Finally, the Open Data User Group has produced several benefit cases to support the free release of particular datasets.³⁴⁷

³⁴⁵ <https://www.gov.uk/government/publications/open-data-public-data-group-business-case>

³⁴⁶ <https://www.gov.uk/government/publications/ordnance-survey-open-data-economic-value-study>

³⁴⁷ See eg <http://data.gov.uk/open-data-user-group-benefits-cases-for-release-of-data>

Appendix D: Glossary and acronyms used

Advisory Panel on Public Sector Information (APPSI) A Non-Departmental Public Body (NDPB) of the Ministry of Justice with a number of advisory duties. It also has a role to review and consider complaints under the Re-use of Public Sector Information Regulations 2005 (the Re-use Regulations) and advise on the impacts of the complaints procedure under those regulations.

Click-Use Licence OPSI's online licensing system for the re-use of Crown copyright information, Public Sector Information and Parliamentary copyright information (this was superseded by the Open Government Licence in 2010).

Copyright A property right giving the creators of a wide variety of material the ability to control use of their material in a number of ways.

Crown body Public bodies (including most central government departments and trading funds) which have Crown status, which means that material which they produce is subject to Crown copyright protection under Section 163 of the Copyright Designs and Patents Act 1988. In many cases the Crown status or otherwise is specified within the context of legislation.

Crown copyright Material produced by employees of the Crown in the course of their duties. Most material originated by ministers and civil servants is protected by Crown copyright.

Data Strategy Board (DSB) A body that seeks to maximise the value of data from the PDG for long-term economic and social benefit, including through the release of data free of charge.

Downstream The term 'downstream' was adopted in the context of the PSI market by the Cambridge study. This did not define downstream but used it interchangeably with refined. APPSI defines downstream as the publicly owned but operating as a commercial company part of a PSIH.

Executive agency Organisations (General executive agencies and Trading Funds) that are part of the Crown and do not usually have their own legal identity, but operate under powers that are delegated from Ministers and Departments.

Fixed costs Costs that do not vary with the level of activity in the short run.

Full cost recovery/pricing A pricing policy in which charges are set to recover the full resource costs of the activity.

Information Asset Register (IAR) A list of information resources held by the UK Government, concentrating on unpublished resources. OPSI has the policy lead for the IAR, which is used across central government as a way of identifying, and accessing asset lists.

Information Commissioner's Office (ICO) The UK's independent body set up to uphold information rights.

Information Fair Trader Scheme (IFTS) A system run by OPSI for setting and assessing standards for public sector bodies.

Intellectual property rights (IPR) Intangible property rights that are granted to creators and owners of works resulting from intellectual effort. The main IPRs are patents, trademarks, designs and copyright.

Legal Aspects of Public Sector Information (LAPSI) European Commission-funded project with the aim to become the main point of reference for high-level policy discussions and strategic action on all legal issues related to the access and the re-use of the PSI.

Licence A permission by the copyright holder to reproduce or re-use material protected by copyright.

Marginal cost The cost of supplying another unit. Long run marginal cost is the full extra cost (both fixed and variable) of providing a further unit of output. Short run marginal cost measures how variable costs change when output alters. In practice, marginal costs are difficult to observe, and average variable costs are used as a substitute for the concept of marginal costs.

Non-Departmental Public Body (NDPB) A body which has a role in the process of national government, but is not a government departments or part of one, and therefore operate to an extent at arm's length from Ministers.

Office of Public Sector Information (OPSI) A body that advises on and regulates the operation of the re-use of public sector information regime. Established on 16 May 2005 as a unit attached to the Cabinet Office, it merged with The National Archives on 31 October 2006.

Open Data Data that can be freely used, re-used and re-distributed subject only, at most, to the requirement to attribute the data to its original source.

Open Data Institute (ODI) A private limited company established as a not-for-profit organisation, limited by guarantee, dedicated to promoting Open Data. Founded by Sir Tim Berners-Lee and Professor Nigel Shadbolt in 2010. ODI also performs the role of intermediary between holders of PSI and users, supporting and funding start-ups and SMEs that rely on PSI.

Open Data User Group (ODUG) A group of 13 individuals that advise the government on what public sector data it believes will have the greatest economic and social benefits for the UK and should therefore be released as open data.

Open Government Licence (OGL) A licence developed by the Controller of Her Majesty's Stationery Office (HMSO) as a tool to enable Information Providers in the public sector to license the use and re-use of their Information under a common open licence. Under the OGL the licensor grants the licensee a worldwide, royalty-free, perpetual, non-exclusive licence to use the Information subject to the condition that the licensee acknowledge the source of the data. The Controller invites public sector bodies owning their own copyright and database rights to permit the use of their Information under this licence.

Power of Information Task Force A group of individuals including public sector members as well as individuals from private companies such as Google (members contributed in a personal capacity rather than on behalf of their respective organisations) was set established by Cabinet Office Minister Tom Watson MP in March 2008. Prior to establishing the Task Force Tom published the 'Power of Information review' in 2007. The POI taskforce had the remit of advising and assisting the government on delivering benefit to the public from new developments in digital media and the use of citizen- and state-generated information in the UK, including those identified in the Power of Information review. The Task Force published their final report on these matters in February 2009 ('Power of Information Taskforce Report').

Publication scheme A guide to the types of information that a public authority routinely publishes, the format in which the information is available and how to access it.

Public Data Group (PDG) A body that brings together four PSIHs: Companies House; Land Registry; Met Office; and Ordnance Survey.

Public sector body The EU Directive on the re-use of public sector information (2003/98/EC) defines this as 'The State, regional or local authorities, bodies governed by public law and associations formed by one or several such authorities or one of several bodies governed by public law' (Art 2(1)).

Public Sector Information (PSI):

In the 2006 CUI study, the OFT defined PSI as 'information, data or content (as defined) collected by and/or held by a public body. The information may or may not be Crown copyright information.' ie it did not link the definition to the 'public task'.

PSI is not defined in the Re-use of Public Sector Information Regulations, but the Re-use Regulations do limit it in various ways eg it must be *information generated and supplied by a public sector body, as part of that public sector body's public task* and it must have been identified by the public sector body as being *available for re-use*.

Public Sector Information Holder (PSIH) A public sector body that collects and/or holds information, data or content (as defined).

Public Sector Transparency Board (PSTB) A body that was established by the Prime Minister (David Cameron) in 2010 to drive forward the government's transparency agenda. It is chaired by the Minister for the Cabinet Office, Francis Maude, and its members are a mix of public sector data specialists and data experts.

Raw data This is defined in HMT's Cross-cutting Review as 'information collected, created, or commissioned within Government which is central to Government's core responsibilities. The supply of selected components of a raw data package, exactly as in the package is raw data supply, but the supply with further analysis, summarisation etc, or of data at a different level of aggregation to that used by Government, is not raw data for the purposes of this report but is value-added

information.’ Furthermore, HMT’s Guidance on Charges notes that ‘Raw data is not synonymous with raw material, or with unchecked data. For example, the raw material for value-added services may, or may not, be raw data.’

Refined information ‘This is where unrefined information has been enhanced, manipulated and/or added to other inputs to create a retail product for businesses or consumers. The process of refining information can be undertaken by a PSIH, or viably in a commercial market by the private sector.’ (OFT 2006 CUI Study)

Return on capital employed (ROCE) This is operating profit, expressed as a percentage of average capital employed (capital, reserves and the long-term element of loans).

Re-use This is defined in the EU Directive on the re-use of public sector information (2003/98/EC) as ‘use by persons or legal entities of documents held by public sector bodies, for commercial or non-commercial purposes other than the initial purpose within the public task for which the documents were produced’ (Art 2(4)).

Shareholder Executive (ShEx) A diverse group of individuals bringing together private sector commercial expertise and essential civil service skills. It manages the government’s shareholder relationships with businesses owned or part-owned by the government. It also offers a wide range of corporate finance expertise and advice to government departments in order to ensure the taxpayer gets good value for money and plays a role in delivering the government’s digital strategies.

Trading fund A government department, executive agency, or part of department, established as a trading fund by a Trading Fund Order made under the Government Trading Funds Act 1973. A trading fund has authority to use its receipts to meet its outgoings.

The Controller of Her Majesty’s Stationery Office (HMSO) The part of the National Archives manages Crown copyright and Crown database rights on behalf of Her Majesty the Queen. Its roles are: licensing a wide range of Crown copyright and Crown database right information through the Open Government Licence and the UK Government Licensing Framework; granting delegations of authority to government departments and agencies to enable them to license the information that they create or hold regulating any government departments and agencies which have authority from the Controller of HMSO to license the information they create, through the IFTS.

The National Archives A government department and an executive agency of the Ministry of Justice which incorporates the OPSI and Her Majesty’s Stationery Office. It performs the Historical Manuscripts Commission’s functions in relation to private records and as the government’s national archive it holds and makes available over 1,000 years of the nation’s records.

Unrefined information This is information that cannot be substituted directly from other sources. It relates to a PSIH’s monopoly activities, where competition is very unlikely. Once a PSIH does something with the data that could be performed viably in a commercial market by the private sector it becomes refined information. (OFT 2006 CUI Study)

Upstream The term ‘upstream’ was used in the Cambridge study. It was not defined explicitly, but was used interchangeably with the term ‘unrefined’. APPSI uses upstream to mean the licensing activities which form part of the public task of a PSIH and downstream as the publicly owned but operating as a commercial company part of a PSIH.

Value-added information (or data) This is defined in HMT’s Cross-cutting Review as ‘information where value is added to raw data enhancing and facilitating its use and effectiveness for the user, for example through further manipulation, compilation and summarisation into a more convenient form for the end-user, editing and/or further analysis and interpretation, or commentary beyond that required for policy formulation by the relevant government department with policy responsibility. It also includes supplying retrieval software, or where work on material is included as part of the compilation of related data, and where there is not necessarily a statutory or operational requirement for Government to produce the material.’

Wider Markets Initiative (WMI) A Government policy designed to make better use of existing government assets through the development of non-statutory goods and services which are sold on a commercial basis.

List of Acronyms

APPSI	Advisory Panel on Public Sector Information
BERR	Department for Business, Enterprise and Regulatory Reform
BIS	Department for Business, Innovation and Skills
CC	Competition Commission
CMA	Competition and Markets Authority
CUPI	Commercial Use of Public Sector Information
DCLG	Department for Communities and Local Government
DfT	Department for Transport
DSA	Driving Standards Agency
DSB	Data Strategy Board
DTI	Department for Trade and Industry
DVLA	Driver and Vehicles Licensing Agency
DVSA	Driver and Vehicle Standards Agency
FOI	Freedom of Information

HMRC	Her Majesty's Revenue and Customs
HMSO	Her Majesty's Stationary Office
HMT	Her Majesty's Treasury
IAR	Information Asset Register
ICO	Information Commissioner's Office
IFTS	Information Fair Trader Scheme
IPR	Intellectual Property Rights
LAs	Local Authorities
LAPSI	Legal Aspects of Public Sector Information
MOD	Ministry of Defence
NDPB	Non-Departmental Public Body
NII	National Information Infrastructure
ODUG	Open Data User Group
OFT	Office of Fair Trading
OGL	Open Government Licence
ONS	Office for National Statistics
OPSI	Office of Public Sector Information
OS	Ordnance Survey
PASC	Public Administration Select Committee
PDG	Public Data Group
POI	Power of Information
PSI	Public Sector Information
PSIH	Public Sector Information Holder
PSTB	Public Sector Transparency Board
PWS	Public Weather Service

PWSCG	Public Weather Service Customer Group
ROCE	Return on Capital Employed
ShEx	Shareholder Executive
SMEs	Small and Medium-sized Enterprises
TfL	Transport for London
TNA	The National Archives
UKHO	UK Hydrographic Office
WMI	Wider Markets Initiative