5. HOW WELL DIFFERENT ACCOUNTING APPROACHES CAN DELIVER THE REVIEW OBJECTIVES

5.1 The three main accounting approaches to be considered for local transport infrastructure are the existing historic cost approach in the SORP, the current UK GAAP-based approach used for national roads under the FReM, and the CSS/TAG approach. These have been assessed in terms of how far each can help deliver the review objectives:

1 Support good asset management and meet other local financial management needs;

2 Provide good information to support policy development and resource allocations;

3 Provide financial accounts complying with relevant IFRS requirements; and

4 Deliver consistent high quality information for WGA and National Accounts purposes.

(i) Historic cost

5.2 As described in Section 3, the SORP requires infrastructure assets to be valued on a historic cost basis, with assets depreciated as appropriate over their useful economic life; a renewals approach to depreciation is allowed in certain circumstances but rarely applied.

5.3 The financial data from which historic costs accounts are produced provide information about what is being spent (though not necessarily on a basis that is wholly consistent between authorities), but provide no measure of what impact that spending is having on the condition and operability of the assets. Therefore the historic cost approach does not meet Objectives 1 and 2. More specifically:

- The asset value figures provide no measure of the current worth of the assets because they are not re-valued to reflect general price movements. The values that feed into the accounts therefore understate their real world value very significantly.

- Conventional depreciation does not reflect reality well where the asset base is in place for many years, meaning that depreciated historic cost values are often very low, even though the assets represented are maintained and operated to serviceable standards. This sends out misleading signals, particularly since almost all other public sector capital assets, including other local government ones, are accounted for on a current values basis which measure the real world impact of the wearing out from use of long-lived assets and the impact of expenditure that is made to bring them back up to the chosen level of service.

- Authorities also operate very different practices and assumptions in the way they value and depreciate their assets, as there is no standardised consistent approach in the SORP to determining asset lives. This adds to the problems of making meaningful comparisons or consolidating information across the sector.

5.4 Historic cost has the advantage that it complies with both UK GAAP and with IFRS. Therefore it meets Objective 3, but it does not meet the requirements of Objective 4 because the basis of valuation is different from central government meaning that it does not provide the consistency required for WGA consolidation. Historic cost information also cannot be used for national accounts purposes. As discussed in Section 3, ONS therefore use their own Perpetual Inventory Model to estimate depreciation, but have no meaningful accounting information about depreciation of local transport infrastructure assets against which to test it.

5.5 In summary, although historic cost accounting for local authority infrastructure complies with relevant UK GAAP and IFRS requirements, it does not support any of the other review objectives.

(ii) National roads accounting under the UK GAAP-based FReM

5.6 The accounting approach currently adopted for national roads addresses some of the weaknesses of the historic cost approach. Valuation is based on current depreciated replacement costs and is therefore consistent with the approach adopted for other public sector assets other than local authority infrastructure. Resource accounting therefore satisfies the requirements of WGA and is also of potential use for national accounts purposes. Therefore, it meets Objective 4. However it has proved expensive and resource intensive to collect the necessary data. There are also some differences in approach between the national agencies as described in Annex F. Further work is therefore needed to improve consistency and to refine methodology, for example approaches to the depreciation of very long lived assets.

5.7 The methodology is very much geared to satisfying RAB and WGA requirements and is not an asset management based approach. Although it does provide some useful information about the real level of depreciation and about the impact of maintenance and other expenditure on the value of the asset from year to year, this limits its value in supporting effective management of the asset base and can make it harder to understand fully the relationship between year on year changes in the accounting numbers and the condition of the asset base. Although the national roads bodies across the UK are beginning to strengthen the links between accounting and asset management there is still some way to go before fully comprehensive asset management is in place. Therefore the method only makes a limited contribution to Objectives 1 and 2.

5.8 From the accounting standpoint, the most important drawback of the current approach is that the version of renewals accounting applied to national roads is an adaptation of the relevant UK financial reporting standard. However no version of renewals accounting is permitted under IFRS. Therefore it does not meet Objective 3. This issue is being addressed as part of the preparations before International Financial Reporting Standards are introduced for WGA and other public sector accounts from 2009/10.

(iii) AMP based CSS/TAG approach

5.9 The CSS/TAG AMP based approach to asset valuation was specifically designed to deliver the requirements of both asset management and accounting, using the same information to support both. As discussed in Section 4, there is already evidence from those authorities who are furthest forward in using AMP based information that it can deliver significant benefits in terms of more efficient management of the asset base and better local financial decision making.

5.10 Unlike either of the other two approaches, asset management also has the potential to support the operation of the prudential system of capital finance in the same way as property asset management does. The Prudential Code, which has statutory force, refers to affordability and prudence as related concepts. 'In order to ensure long term affordability, decisions have also to be prudent and in the long term sustainable. Therefore in carrying out their statutory duties under Part 1 of the Local Government Act 2003 (England and Wales) and Part 7 of the Local Government in Scotland Act 2003 in respect of affordability, local authorities are required to have regard to all those aspects of the Prudential Code that relate to affordability, sustainability and prudence.' Asset management planning is specified as one of the required processes that should underpin the operation of the Code.

5.11 For national policy making purposes, the most important requirements are consistent information about the state of the asset base, changes in this over time, and the expenditure required to maintain it at (or restore it to) specified performance levels. Such information could be used both to inform decisions on funding priorities between transport and other expenditure programmes, and to inform allocations of support for maintenance of transport assets between authorities. Of particular importance here is the information that the CSS/TAG approach provides about depreciation. Even without depreciation hitting the bottom line, there would be important benefits from having consistent information about the expenditure needed to maintain assets appropriately and to use that to inform resource allocations. Robust information about the cost of maintaining assets is also an important pre-requisite to any further work towards addressing the question of how to make true depreciation affordable. It would be particularly useful for transport assets where the question of affordability is perceived to be particularly acute.

5.12 An AMP based approach is consistent with the current requirements of UK GAAP. The review has also looked in detail at the question of IFRS compliance and has concluded that the CSS/TAG approach should be consistent with a component depreciation approach under IFRS. The analysis and conclusions on this are set out in detail in Annex G.

5.13 Finally, the CSS/TAG approach would meet the WGA consolidation requirements and also provide information that would assist ONS's work to improve the national accounts.

Table 5.1 Comparison of how well different accounting approaches can deliver the review objective

Objective	Accounting approach		
	LA SORP	UK GAAP-based FReM	AMP based
Support good asset management/good financial management	No	Some	Yes
Support policy development/ resource allocation	Some	Yes	Yes
IFRS compliant	Yes	No	Yes
Support WGA/National Accounts	No	Yes	Yes

5.14 Although the CSS/TAG valuation guidance needs some further simplification/ clarification and development, and does not presently cover non-roads infrastructure, it effectively meets accounting requirements (although some relatively minor revisions are required to bring it into line with IFRS). It also has the potential to deliver robust and consistent information that can be used to inform both resource allocations and policy decisions at both local and national level. It can therefore meet all the review objectives and on the basis of the analysis in Table 5.1, such an AMP based approach should be the preferred approach for any change to the current SORP accounting treatment.

Is it necessary to change the SORP to deliver the review objectives?

5.15 Having concluded that an asset management plan based approach has significant advantages over the alternatives, we went on to look at whether these would be achieved simply by leaving authorities to implement the CSS/TAG approach administratively as now or whether the SORP should also be changed. We have concluded that if the benefits of an AMP based approach are to be fully realised, an early change to the SORP is desirable for the following reasons:

- **Greater professional finance input** to support the process of developing financial information within the AMP. This would have a number of benefits. Finance professionals would bring relevant wider experience to bear, for example in advising on appropriate levels of sampling and questions of materiality, and would generally provide an important external challenge function and backchecks on consistency and transparency. In the limited cases where professional finance input is being provided now, it is proving invaluable.

- **Increased data consistency.** In the many authorities where the AMP based approach is being pursued without any professional accounting input, a lot of time is being spent on debating precisely what cost elements should be included and how they should be treated, and the resulting decisions are not always consistent between authorities or regional groups. In many cases the way forward is to be found in the correct application of accounting principles.

- **Data quality.** Accounting information would be subject to external audit, thereby providing added assurance. Assurance about the quality as well as consistency of information is essential both to underpin the planning assumptions within the TAMP, and so that data can be used to inform resource allocations and policy decision making, both nationally and locally. It is also important for benchmarking purposes and for reliably tracking performance over time. A change in accounting would provide that assurance to both internal and external stakeholders that the information being generated is robust, of high quality and produced on a consistent basis.

- **Inputs.** Professional financial resource could of course be provided more widely anyway, but it is doubtful whether authorities would be prepared to give the work as much priority as they would if it also served the accounts.

- **Efficiency.** Having a body of financial information that is based on a set of accounting principles and is used for service and other decision making purposes but is not reflected in the actual accounts would be a waste of resources. It is also potentially confusing for external stakeholders.

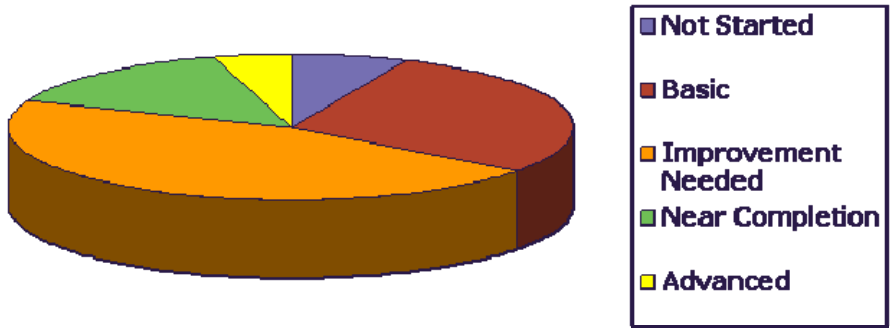
- **WGA and national accounts.** Consistent high quality information for consolidation into WGA and the National Accounts can only be achieved by a change to the SORP, which would remove the need for dual reporting which would otherwise be required to achieve consistency.

5.16 As we concluded in Section 4, given the potential of TAMPs to deliver service improvements and significant efficiency gains, there is a strong case anyway for all authorities to make progress towards implementing them as quickly as possible. A change to the SORP would help drive a timetable for implementing TAMPs that is lacking at present.

Development work required to implement an AMP approach

5.17 The Atkins study also looked at progress with asset valuation. Again it found significant variation in the position between authorities. Only a small minority had not yet started to do anything, but at the other end of the spectrum only a similar small number were well advanced. Around three quarters of authorities described the quality of their asset valuation work as either basic or in need of improvement as shown in figure 5.1.

Figure 5.1 Atkins study findings on quality of asset valuation



5.18 In looking at progress in implementing valuation issues we have been able to draw on two further sources in addition to the Atkins study: a survey undertaken by the CSS/TAG Asset Management Working Group in late 2006/early 2007; and feedback from a large number of individual authorities who have attended regional workshops as members of the Local Authority Highway Asset Management Planning Network, run by CIPFA Commercial Services. The review team also ran its own workshop in February 2007, which was attended by representatives from across the English regions and from Scotland and Wales.

5.19 The CSS/TAG survey asked authorities, among other things, what they saw as the main challenges or concerns in undertaking asset valuation. The two highest scoring issues were incomplete data inventories and developing depreciation/impairment models. These were followed by time/resource constraints and insufficient data for unit rates. Feedback from the various workshops also highlighted these as key issues.

Issues that need to be addressed before valuation information can be used in financial statements

5.20 The total value of the highway assets if valued on a current value basis could be anticipated to be substantial when compared with the existing local authority balance sheets. If the valuations were insufficiently robust to withstand audit scrutiny, then in all likelihood their inclusion in published financial statements could lead to a qualification of the audit opinion. There are therefore a number of

areas that would need to be addressed in order to refine the valuation and accounting approaches before the formal step of including the amounts in the financial statements could occur. Essentially, this would mean having a transparent and consistent approach amongst authorities, which in turn was supported by sufficiently accurate underlying data and reasonable assumptions.

Calculating Gross Replacement Cost

5.21 The experience from those highway authorities that have sought to prepare a Gross Replacement Cost for their infrastructure assets following the CSS/TAG approach, or something similar, is that there are a number of key problem areas to be overcome. These are:

- **Inaccurate or absent inventory data on the assets.** Incomplete data inventories was one of the two highest scoring issues identified in the CSS/TAG survey, and a major theme from the workshops.

- **Difficulties in determining unit costs due to the low level of new road construction.** This is an issue for some of the national roads agencies too. However, it is more acute for local authorities in that certain types of road, particularly unclassified ones, are rarely built these days other than by developers. For commercial reasons, they are generally unwilling to share tender information.

5.22 The valuation guidance recommends that authorities should join together in regional groups to share data and in particular to pool information to develop unit cost rates. Authorities are following this advice as set out in Box 5.1 and we have found some encouraging examples of joint working, with authorities sharing information and developing best practice. There is also evidence of developing practices in the area of asset information quality as described in Box 5.2.

Box 5.1: Examples of highway authorities sharing information

The Midlands Service Improvement Group (MSIG)

Eight authorities from the MSIG have pooled their resources within a valuation task group to determine average asset inventory amounts, for example average road widths. Similarly, where individual authorities have good data, they have used this to determine percentages so that other members can derive indicative asset inventories. This goes into further detail and picks up assets not otherwise recorded in the CSS/TAG document, such as trees.

South East Centre for Excellence (SECE)

Authorities in the SECE have jointly funded a study, project managed by Hampshire CC, to develop a streamlined approach to preparing consistent gross replacement costs. Highway authorities within the area were asked to supply information on infrastructure asset values. Eight authorities returned data and a comparison exercise was undertaken which identified significant variations. A spreadsheet model has been prepared which provides a quick approach to calculating Gross Replacement Cost for an authority's infrastructure assets. This model simplifies significantly the CSS/TAG approach by using standard values, based on average data from participating authorities, to determine default values that can be used where an authority lacks the relevant information itself. These values were drawn from the data provided by the eight authorities, but only used after analysis and discussion made sure that it was reliable rather than an outlier. The model also uses carriageway widths based on current design standards, on the assumption that a modern equivalent asset would be built to this width rather than the existing road widths. The model also provides for a user to vary the default values to reflect local circumstances — for example to allow the Isle of Wight, one of the participating authorities, to up-rate costs to reflect the extra cost of shipping materials and machinery from the mainland. The system also provides for an authority's own data to be input in place of the default values where it has its own good quality information. The project has been presented to the CSS/TAG Asset Management Working Group and at CIPFA's Regional Asset Management Workshops.

Box 5.2: Developing asset information quality

Hertfordshire County Council have previously carried out detailed inventories of their infrastructure assets over a number of years and generally have good data on most assets. They have also developed a confidence rating for the data they hold with tolerances expressed as a percentage variation. This ranges from Grade A (Accurate, based on validated data with a tolerance of +/- 5%) to Grade D (All data estimated, often based on judgement of experience personnel and with a tolerance of +/- 40%).

For most of their asset categories, including roads, footways, bridges, they have Grade A confidence, with only a small handful of categories below this.

Depreciated Replacement Cost and Annual Depreciation measurement

5.23 The other highest scoring issue from the CSS/TAG survey, again endorsed by feedback from the workshops, is the need for help in developing depreciation/impairment models. The availability of cost data is less of an issue here since unit cost rates for depreciation are based on maintenance rather than new construction rates and there is much more evidence to draw on. It is

important that so far as possible authorities do use their own rates, particularly for carriageways and any other large items of expenditure. However there is a need to promote greater consistency by developing normative approaches to depreciation of elements of the network. There is also a need for more work to develop consistent, repeatable condition assessment, although work on this is being undertaken particularly for carriageways. Annex H discusses survey methods for assessing the condition of roads.

5.24 As an example of the need to develop consistent approaches there is general acceptance that, except for certain older roads built on poor ground, lower layers of road carriageways are unlikely to degrade so long as they are maintained to an appropriate standard and therefore that part of the asset value should be treated as non-depreciable. However, as yet there is no agreed approach to determining the value of the non-depreciable element. Similarly there is no consistent approach to how far the value of very long lived structures should be depreciated at initial valuation to reflect their age. This means, for example that some very old structures are treated as having very small values although in practice they are in decent, serviceable condition and, subject to adequate maintenance, are expected to remain in use for many years to come.

Further guidance and support

5.25 Both the CSS/TAG survey and the review team asked practitioners what additional support they would like to receive in taking forward highway asset valuation. The review also sought views on how authorities who are still at the early stages of valuation might be helped to move forward quickly. In the slightly longer term practitioners felt that it would be desirable to update the existing guidance to take account of developing best practice and share lessons from the work undertaken so far. However, this might be better left for another year or so until some of our other recommendations have been addressed, so that the results of this and other ongoing development work can be reflected in the guidance.

5.26 In the shorter term, alongside the specific GRC/DRC issues discussed above, the main requirements from practitioners were to find ways of achieving greater consistency by providing more detailed advice on matters such as what individual cost elements should be included under particular definitions, and also advice on issues such as valuation of land. There was a strong view that there was scope for streamlining the valuation process, with authorities pooling data to help develop average rates for common components. This was seen as particularly useful for less important, lower value assets, leaving authorities free to concentrate their own early efforts on the more important, high value elements. The general feedback from those authorities that are further ahead seems to be that where this kind of approach has been tried, it has produced reasonably comparable results from different sources. So far, work to compare results of individual initiatives has been ad hoc. A more systematic process of bringing this kind of data together would increase coverage and so should make the outputs more robust. Over time, as actual inventory data is collected, the valuation could be refined.

5.27 There was also a wish for some kind of simple route map to give authorities in the early stages advice on what to tackle first in terms of covering the high value, most important things first, so that authorities would be able to produce good ball park valuations and start to have useful asset management information quickly.

Conclusions

5.28 In this section we have considered the three main potential approaches to accounting for local transport infrastructure and concluded that only the AMP based CSS/TAG approach would support delivery of all the review objectives. We also concluded that an early change to the SORP accounting treatment for transport infrastructure assets is necessary to ensure that the benefits from implementing an AMP based approach are realised quickly and in full.

5.29 However a proposal to change the SORP, raises a number of important implementation issues that need to be addressed before any change can take place. We shall return to this in Sections 7 and 8.