

3. INFRASTRUCTURE ASSETS: DEFINITIONS AND CURRENT UK ACCOUNTING APPROACHES

- 3.1 The review is mainly concerned with local government transport infrastructure assets in the UK. However the scope of our inquiries has been broader, to understand both how other types of infrastructure assets are dealt with in the UK, and to look at whether there are lessons to be learned from how infrastructure assets in general are accounted for in other countries.
- 3.2 This section of the report considers the definition of infrastructure assets, in terms of the types of assets encompassed and the extent to which terminology is standardised. Transport infrastructure assets are then considered in more detail, in the context of assets encompassed, accounting terminology and the accounting approaches adopted in the UK.

Infrastructure asset definitions

- 3.3 On the basis of our international survey, the types of infrastructure assets encompassed by the term 'infrastructure assets' include:

- Highways i.e. roads and associated structures*
 - Heavy Railways and associated structures
 - Light rail and tramways*
 - Water and sewerage systems
 - Power systems
 - Telecommunications networks
 - Airports*
 - Ports, docks and harbours*
 - Coastal and flood defences*
- *indicates categories where UK local authorities control some of the assets

However, there is no consistent definition of infrastructure assets for accounting purposes, either internationally or within the UK public sector.

Highway infrastructure assets

- 3.4 Highways are by far the biggest category of infrastructure assets in the public sector. They can be analysed in several ways, but the most common method in the UK is by road classification:

- Motorways
- Trunk Roads
- Non-trunk roads:
 - A-roads
 - B-roads
 - C-roads
 - Unclassified

Roads are also commonly divided between urban and rural.

- 3.5 The motorways and trunk roads in Great Britain are owned and managed by the relevant national administrations, while the non-trunk roads are owned and managed by local highway authorities. For the purposes of the review we have treated assets controlled by the Mayor for London as falling within scope since both the Greater London Assembly and Transport for London fall within the local government accounting regime. In Northern Ireland, all roads are managed by the Northern Ireland Roads Service.

- 3.6 All GB local roads are accounted for on local authorities' own balance sheets and are therefore accounted for under the SORP. National roads are accounted for in accordance with the Government Financial Reporting Manual (the FReM).

Other local authority transport infrastructure assets

- 3.7 Only a small part of other (non-roads) local infrastructure is on local authorities own balance sheets. This generally comprises the smaller assets, e.g. some smaller airports and harbours, and all coastal defence works. The majority of non-roads transport infrastructure is either held in local authority companies, e.g. the larger local authority owned airports and London Underground, or belongs to Passenger Transport Executives (PTEs), e.g. Manchester Tramlink and the Tyne and Wear Metro; there are also a number of off-balance sheet PFI schemes, such as Nottingham Express Transit. In all these cases UK Generally Accepted Accounting Practice (UK GAAP) applies directly rather than via the SORP. Further information on PTE accounting practices is provided in Annex E. Individual local authorities which have subsidiary companies are required to produce consolidated accounts: these group accounts have to be prepared in accordance with the SORP.
- 3.8 The one body that holds substantial non-roads transport infrastructure that is accounted for under the SORP is the Strathclyde Partnership for Transport, which among other things owns and operates the Glasgow metro. Until December 2005, the metro was part of the assets of Strathclyde PTE which operated commercial style accounts like its English counterparts. However, following the Transport (Scotland) Act 2005 a new structure of regional transport partnerships was introduced across Scotland, and one effect of re-structuring is that the new bodies fall within the scope of the SORP.

Accounting definitions of infrastructure

- 3.9 As discussed above, there is no consistent accounting definition for infrastructure assets, either internationally, or even across the UK public sector. The three sources of available guidance in the UK are:
- the SORP for local authorities;
 - the FReM for central government; and
 - the CSS/TAG valuation document.
- 3.10 The **SORP** defines infrastructure assets as:

'Fixed assets that are inalienable, expenditure on which is recoverable only by continued use of the asset created. Examples of infrastructure asset are highways and footpaths.'

The SORP Guidance Notes list a few further examples, but these are not comprehensive.

- 3.11 The **Government Financial Reporting Manual** (the FReM) states that:

'Infrastructure assets comprise assets that form part of an integrated network servicing a significant geographical area — for example road networks.'

The FReM does not contain any more detail on the assets falling within this definition.

3.12 It can be seen that the SORP and FReM definitions are significantly different from each other. While they obviously cover comparable types of asset, there is room for differences in treatment, at least at the margins, both between the central and local government sectors and between individual bodies. If convergence is to be achieved, these definitions and the accompanying guidance will need to be brought into line.

3.13 The CSS/TAG Valuation document helpfully provides more detailed guidance on highway infrastructure. It defines this as:

‘An authority’s portfolio of highway assets including roads, segregated footpaths and cycle routes, structures, lighting, traffic management systems etc. Together they function as a system or network which as a whole is intended to be maintained at a specified Level of Service (assessed through performance measures) by the continuing replacement and refurbishment of its assets and elements.’

3.14 We have taken this as our working definition of highway assets for the review. Within this, the CSS/TAG Guidance identifies the following categories of infrastructure asset:

- Road
- Segregated footpaths and cycleways
- Structures e.g. bridges, culverts, retaining walls
- Highway lighting
- Street furniture
- Traffic Management e.g. traffic signals, pedestrian crossings
- Off-highway drainage
- Land

It also provides the more detailed breakdown of highway asset types and groups set out in Annex D.

Overview of UK infrastructure asset accounting approaches

3.15 Until the 1990s there were significant differences between public sector and private sector accounting in the UK, reflecting the different nature and objectives of their financial activities. Although local government accounting was determined by central government legislation, there were also significant differences from central government accounting. Central government operated on a cash basis while local government and the rest of the public sector largely accounted on the accruals basis, which is described in Box 3.1.

Box 3.1: Background to accruals accounting and UK GAAP

The purpose of accruals accounting is to report the economic substance of the transactions a body has entered into during a period of time and their impact on its financial position, which is often different to their cash flow impact. For example, if a body buys a service in one period, it would reflect the cost of the service in its accounts for that period, even if it only paid for the service in the next period. Similarly, it would account for income it has earned during the period, even if it does not receive the cash until a subsequent period. Also where a body has incurred expenditure on an item that can be used in future periods, then an appropriate proportion of the original expenditure is carried forward, or capitalised.

The framework within which accruals accounts are prepared for non-listed private sector companies is known as Generally Accepted Accounting Practice (GAAP). Under UK GAAP, fixed assets are initially recognised at their historic cost. Entities then have a choice to continue to recognise their fixed assets on a historic cost basis or to revalue them. Depreciation can be calculated on either a conventional, normally straight line, basis over the life of the asset or, for assets that form part of a network or system, on a renewals basis.

- 3.16 Since the late 1990s, public sector accounts have been brought much more closely into line with UK GAAP. This is the basis on which central government Departments now prepare their accounts and for Whole of Government Accounts (WGA). Although the local authority SORP is also currently UK GAAP-based, important differences still remain between central and local government in the area of accounting for transport infrastructure assets. These are summarised below and are discussed in more detail in Annex F. The discussion is set in the context of the overarching national accounts and WGA frameworks.

The Local Authority SORP

- 3.17 Under the SORP, while most local authority assets are recognised on a current value basis, infrastructure assets are required to be valued on a historic cost basis. This is different from the approach adopted in central government, giving rise to the WGA convergence problem referred to in the previous section. Assets are depreciated as appropriate over their useful economic life. A renewals approach to calculating depreciation is allowed for assets that form part of a network or system, but this is rarely applied. The background to renewals accounting is summarised in Box 3.2.

Box 3.2 Renewals Accounting

(i) UK GAAP

Under UK GAAP, renewals accounting can be used where an entity has a network or infrastructure system. Major components in the system with different finite useful lives should be separately identified and depreciated. For the remaining network components, renewals accounting can be used as a method of estimating the assets' annual depreciation charge provided that:

- the whole infrastructure asset is to be maintained at a specified level of service potential by continually replacing and refurbishing its components;
- the amount of annual expenditure required to maintain the operating capacity (or service capability) is calculated from an asset management plan (which must be certified by an appropriately qualified and independent person); and
- the system or network is in a mature or steady state.

In these circumstances, annual depreciation charge is the estimated annual expenditure required by the AMP to maintain the asset. The depreciation charge is deducted from the carrying amount of the infrastructure asset and charged to operating expenses.

Actual expenditure on the asset each year to maintain it in the required condition is then capitalised i.e. added to the asset's value. Thus it can be seen that if the amount actually spent is less than that required, the asset will suffer a net fall in value, reflecting the deterioration of its condition. Similarly, if the amount spent is greater, then a net increase in the asset value will occur, to reflect an increase in its condition.

(ii) the Government FReM

The current UK GAAP-based version of the Government FReM adopts its own version of renewals accounting for infrastructure assets. Under this approach, the actual expenditure on maintaining the asset is charged each year to operating expenditure. Expenditure that increases the capacity (e.g. new roads) or capability of the network is capitalised. The asset itself is not depreciated, but is subject to revaluations at least every five years, with interim indexation. Any movements in the asset value as a consequence of these revaluations which are not due to new or removed assets (e.g. detrunking of roads) reflects changes in the asset condition and are charged or credited to the Operating Cost Statement/Income and Expenditure Account as appropriate.

Central government accounts (FReM)

- 3.18 Central government accounts are currently prepared on an accruals basis under UK GAAP with assets recognised on current value basis; renewals accounting must be applied for infrastructure assets; a conventional basis is used for other assets. However, the (then) Chancellor announced in the 2007 Budget that International Financial Reporting Standards (IFRS) would be adopted for WGA and central government and NHS bodies from 2008/09. In the 2008 budget this timetable was changed to 2009/10 to give organisations more time to prepare. The background to IFRS is set out in Box 3.3.

Box 3.3: Background to IFRS

International Financial Reporting Standards (IFRS) are set by the International Accounting Standards Board (IASB) and its associated groups and committees. Its activities are overseen by the International Accounting Standards Committee Foundation (IASCF).

IFRS 'GAAP' comprises many documents, of which the most important are:

- International Financial Reporting Standards (IFRS) issued by the IASB.
- International Accounting Standards (IASs) issued by the IASB's predecessor, the International Accounting Standard's Committee (IASC).
- Interpretations issued by the International Financial Reporting Interpretations Committee (IFRIC).
- Interpretations issued by IFRIC's predecessor, the Standing Interpretations Committee (SIC).

The European Union operates a process for adopting IFRS standards and interpretations and EU companies can only use the EU-adopted version of IFRS for their statutory accounts. This process may result in the modification or the rejection of part or all of a standard.

- 3.19 The current approach to renewals accounting adopted in central government, discussed in Box 3.2, is not consistent with the normal renewals accounting approach under UK GAAP, nor with IFRS. The IFRS accounting requirements in relation to purchased Tangible Fixed Assets are covered by four standards but for the purposes of the review, IAS 16 on Property, Plant and Equipment is the key standard on which to focus. This standard has no specific provisions for renewals accounting. It has therefore been decided that from 2009/10, government bodies with infrastructure assets will need to adopt a revised depreciation-based approach that is consistent with IFRS. The implications of the Chancellor's decision for the future accounting for local authority and national infrastructure assets are considered later in this report.

CSS/TAG approach

- 3.20 The purpose of the CSS/TAG valuation guidance is to 'provide guidance on asset valuation of highway infrastructure assets that aligns with financial reporting and Asset Management requirements.' It includes guidance on determining a valuation for infrastructure assets based on current replacement cost, adjusted to reflect past consumption of the assets.
- 3.21 The Gross Replacement Cost of assets is determined from asset inventory data and current unit construction costs. The asset value is then adjusted to reflect the known asset condition. Guidance is given on unit measures for each type of asset and for determining unit costs. Finally, there is guidance on depreciation approaches for the different asset types. A more detailed account of the CSS/TAG approach to valuation is given in Annex D. The CSS/TAG guidance provides a helpful classification of highway assets, but further work would need to be done to extend its application to other types of local transport infrastructure assets such as light rail and metro systems to ensure consistency of treatment.

- 3.22 As the approach to asset valuation recommended in the CSS/TAG guidance is based on current values, it produces very different results from the present historic cost valuation basis for infrastructure assets required by the SORP. It follows the FReM in requiring a renewals based approach to depreciation to be used for assets which form part of a network or system, and a conventional basis for other assets. This approach was chosen because it was thought to provide more useful information for asset management and other decision making purposes, and because it would support the objectives of WGA and other national reporting requirements.

National Accounts

- 3.23 National accounts are the primary means by which economic activity in countries and the financial activities of governments are measured. The national accounts for the UK are published by the Office for National Statistics (ONS). As a European Union (EU) membership condition, they are prepared using the rules in the European System of National and Regional Accounts 1995 (ESA 95), produced by Eurostat (the EU's statistical office). ESA 95 is itself based on the over-arching System of National Accounts (SNA), which is under the control of a committee comprising a range of international bodies including the United Nations, the International Monetary Fund and the World Bank.
- 3.24 Because the principles of SNA and ESA 95 are adopted across the world, the UK national accounts are widely comparable with European and other comparator nations. This international comparability is one of the reasons why national accounts are fundamental to the assessment of fiscal performance. A further advantage of national accounts is that they are integrated accounts for the whole economy; government is presented as a sector in the economy. National accounts thus reflect government's role in the economy and society. The accounts are analysed into key economic sectors, one of which is the General Government Sector. This in turn is analysed into Central Government and Local Government sectors.
- 3.25 The depreciation figures used in the national accounts are calculated using ONS' Perpetual Inventory Model (PIM). The source of the initial valuation data used in the PIM is not documented and we understand was probably calculated by ONS using broad-brush estimates at a national level. It was not based on detailed bottom-up information from individual local authorities.
- 3.26 The ONS PIM uses a component depreciation approach rather than a renewals approach. This involves separating an asset's value between those components that have significantly different expected economic lives and then depreciating them separately over those lives. Ultimately it is a matter for ONS to decide whether to adopt an AMP-based approach to estimating depreciation for inclusion in the national accounts. However, any new approach adopted for local authority transport infrastructure assets needs to demonstrate its consistency with a component based depreciation approach. This is considered in Section 5.

Whole of Government Accounts

- 3.27 The basis for the Government's fiscal framework is set out in the Code for Fiscal Stability. Among other things this commits the Government to ensuring that best practice accounting methods are used to construct the public accounts, and to introducing RAB. The aim is to provide better data for fiscal planning, increase transparency and improve accountability to Parliament. The production of WGA, described in Box 3.4, is a key part of delivering this commitment. WGA data are increasingly being used to support ONS in its work to improve the quality of the national accounts.

Box 3.4: WGA — Accounts for the whole public sector

WGA will use commercial accounting methods to produce a single set of consolidated financial statements based on Generally Accepted Accounting Practice (GAAP) for the whole public sector. In the context of individual body resource accounts, WGA will be prepared under GAAP, as adapted for the context. The Government Resources and Accounts Act 2000, which provides the legislative framework for WGA, requires the Treasury to prepare a set of consolidated accounts for bodies that appear to it:

- to exercise functions of a public nature; or
- to be entirely or substantially funded from public money.

Full WGA will therefore include all the different types of public sector bodies and treat these bodies as a single entity, so all material transactions and balances between the constituent entities must be eliminated. Consistent accruals accounting policies must be applied across the group for all material transactions and balances.

- 3.28 It is a fundamental principle that consolidation must be based on consistent accounting policies — i.e. that material transactions of the same type are accounted for in the same way across the group. H M Treasury has therefore been leading a programme of convergence of accounting policies across the public sector.
- 3.29 Local government is the most significant area to retain its own accounting regime. Considerable changes in recent years have brought the SORP into line with UK GAAP. However the big outstanding issue is that the treatment of local roads (and other infrastructure where it sits on the authority's own balance sheet) is different from that adopted for central government.

Conclusions

- 3.30 This section has shown that, while there is a general understanding across the UK and internationally as to what is meant by 'infrastructure assets', there is no consistent, comprehensive definition for accounting purposes. The SORP and FReM definitions need to be brought into line in order to achieve convergence for WGA and national accounts, and to provide consistent information for resource allocation and other purposes. The CSS/TAG guidance provides a helpful classification of highway assets, but further work would need to be done to extend its application to other types of local transport infrastructure assets such as light rail and metro systems to ensure consistency of treatment, and to bring it fully into line with IFRS requirements.
- 3.31 There are also significant differences in the way that the various bodies responsible for public sector roads and other transport infrastructure in the UK account for them. These will need to be addressed in order to deliver the consistent information required for WGA and national accounts purposes. The usefulness of these different approaches in providing information to support asset management and serve the other purposes identified in our terms of reference is discussed in detail in Section 5 of the report. However, to set the scene the next section looks at the drivers for implementing asset management, progress to date, and the costs and benefits of implementing it.