INTERNATIONAL VALUATION STANDARDS COUNCIL

Valuations of Specialised Public Service Assets

EXPOSURE DRAFT

Comments on this Exposure Draft are invited before 1 March 2013. All replies may be put on public record unless confidentiality is requested by the respondent. Comments may be sent as email attachments to:

CommentLetters@ivsc.org

or by post to IVSC, 41 Moorgate, LONDON EC2R 6PP, United Kingdom.

International Valuation Standards Council
41 Moorgate
LONDON EC2R 6PP
United Kingdom
Email: ivsc@ivsc.org
www.ivsc.org

Introduction to Exposure Draft

The IVSC has been alerted to the fact that different approaches are being adopted by public sector entities for the valuation of specialised assets used for service delivery. Some of the issues brought to the Board's attention included:

- Whether the economic value of the asset should reflect any other benefit, such as the benefit it provides to society.
- Where the existing use is sub-optimal, the extent to which a higher value alternative use should be reflected.
- Whether reproduction cost or replacement cost is the appropriate starting point when using the cost approach to value special purpose buildings.
- How economic obsolescence should be reflected in the valuation of assets held by not-for-profit entities

The IVSC is also aware of a project being undertaken by the International Public Sector Accounting Standards Board (IPSASB) to introduce a Conceptual Framework which includes a review of measurement and valuation concepts for publicly owned assets. Whilst the outcome of this project could also impact on the guidance that IVSC currently issues in the Annexe to IVS 300 *Property Plant and Equipment in the Public Sector* it is understood that the IPSASB project will not be finalised until late 2014 and any consequential changes to the existing standards are unlikely to become effective for at least three years.

It was therefore agreed that the IVSC should undertake a project to provide guidance on the principles of valuation for specialised assets. Initially the scope was confined to government or publicly owned assets but the Board agreed that the valuation considerations relate to the nature of the asset rather than the legal status of the owner, and that many specialised assets used for delivery of public services are owned by private entities. The Board therefore agreed that the project should address the valuation of specialised assets held for delivery of a public service, regardless of whether owned by a public or private sector entity.

Questions for Respondents

The IVSC invites responses to the following questions on or before 1 March 2013. Not all questions need to be answered but to assist analysis of responses received please use the question numbers in this paper to indicate to which question your comments relate. Further comments on any aspect of the Exposure Draft are also welcome.

Notes for respondents:

In order for us to analyse and give due weight to your comments, please observe the following:

1. Responses should be made in letter format, where appropriate on the organisation's letter heading.
2. Comments should not be submitted on an edited version of the Exposure Draft.
3. Unless anonymity is requested, all comments received may be displayed on the IVSC website.
4. Comments letters should be sent as an e mail attachment in either MS Word or an **unlocked** PDF format and no larger than 1mb. All documents will be converted to secured PDF files before being placed on the web site.
5. The email should be sent to commentletters@ivsc.org

Questions

1. Some of the challenges that arise in valuing specialised public service assets result from similar assets being cash-generating when owned by a for-profit entity and non-cash-generating when owned by a not-for-profit or public benefit entity. The Board's initial view is that it is the characteristics of an asset and the service it provides that are relevant to its valuation. Others argue that the status of the owner can be a significant factor that impacts on the value of an asset as in many cases there is circularity between the for-profit or not-for-profit status of the owning entity and the cash-generating status of the assets.

   Which of these views do you support?

2. The draft contrasts the concepts of market value and investment value (as defined in the IVS Framework and this draft). Market value should give the same result as fair value as defined in IFRS 13 as the differences between the two do not affect specialised public service assets. It is therefore frequently used as a basis when specialised public service assets are valued for financial reporting. Investment value is specific to the owner and can reflect criteria that would either not be relevant or available to market participants, such as measures relating to the public benefit created by or accruing to the asset.

   Do you consider that these distinctions are clearly explained?

3. The proposed guidance makes a distinction between measuring the value of the asset and measuring the social value, ie the impact of that asset on either other assets or the wider community. It excludes the latter from the scope of the proposed TIP on the grounds that social value of an asset is not directly correlated with the value of the owner's interest in that asset.

   a) Have you had experience of the impact that a specialised public service asset has on the value of other assets or the wider community being used as a measure of the value of that asset?

   b) If so, please explain the purpose for which the valuation was required.

4. Many specialised public service assets such as roads, town squares, footpaths, public parks and gardens, informal recreational areas, etc are assets for which public users make no direct payment for access or use. Some regard such "assets" as being incapable of reliable measurement because:

   i) neither the historic nor the current cost normally has any relevance or correlation to a measureable benefit to the owner and

   ii) there are no actual or implied revenues, such as a reliable proxy or cost saving, that can be attributed the asset.

   a) Do you consider that all specialised public service assets are capable of reliable valuation, or that some such assets should be declared as incapable or unsuitable for valuation?

b) If you have experience of valuing assets such as those identified in this question, please describe the type of asset valued and briefly describe the method or methods used.

5. It is proposed that the current Annexe to IVS 230 Historic Property be included in this TIP and deleted from the IVS. The rationale is that many historic and heritage properties are used for providing a public service. The historic features are a form of specialism as they can often limit or constrain the use of these properties. As a consequence it is felt that many of the valuation considerations that apply to specialised public service assets also apply to historic and heritage properties and that it is more appropriate to present the guidance here than as an adjunct to IVS 230.

Do you agree with this proposal?

6. Paragraph 36 of the draft proposes that four principal categories of specialised public service assets can be identified, and provides examples of types of asset that fall within each of these categories.

a) Do you agree with the categorisation proposed?

b) Do you find the categorisation and examples to be helpful?

b) Do you consider that there are either any significant omissions or asset types that should be excluded?

Exposure Draft

Specialised Public Service Assets

Technical Information Papers

The principal objective of an IVSC Technical Information Paper (TIP) is to reduce diversity of practice by identifying commonly accepted processes and procedures and discussing their use. A TIP is designed to be of assistance to professional valuers and informed users of valuations alike. A TIP will do one or more of the following:

- provide information on the characteristics of different types of assets that are relevant to their value,
- provide information on appropriate valuation methods and their application,
- assist the consistent application of an International Valuation Standard (IVS) by dealing with matters identified in the Standard in greater detail,
- provide information that is helpful to valuation professionals in exercising the judgements they are required to make during the valuation process in specific situations.

A TIP does not:

- provide valuation training or instruction,
- direct that a particular approach or method should or should not be used in any specific situation.

The contents of a TIP are not intended to be mandatory. Responsibility for choosing the most appropriate valuation methods is the responsibility of the valuer based on the facts of each valuation task.

The guidance in this paper presumes that the reader is familiar with the International Valuation Standards (IVSs). Of particular relevance to the application of this TIP are the concepts and principles discussed in the IVS *Framework* and the provisions of IVS 220 *Plant and Equipment* and IVS 230 *Real Property Interests*.

Introduction and Scope

1. For the purpose of this TIP a public service asset is an asset that provides a service for the benefit of the public. This includes assets for the supply of an essential commodity, such as water or electricity, a service such as communications or transportation or facilities for recreation or cultural activity. A public service asset may be owned by a public sector body or a private entity.

2. Assets held to provide a service to the general public may often be similar in nature or design to assets held for commercial objectives, and because they are capable of use for either can normally be valued in the same way as the commercial asset. An example would be an office building occupied by a government department to offer a service to the public which was situated in close proximity to similar buildings occupied by private sector businesses also offering services to the public. The value for the government use would be the same as the value for a commercial use because the government department would be competing with commercial users for that office space in the market.

3. However, many assets held to provide a public service are specialised. This specialisation may relate to the design, location, specification, size or any combination of these factors. These factors are specific to the service being provided, and as a consequence there is no commercial use against which the value of the asset can be benchmarked. This TIP examines some of the approaches that should be considered when a valuation of a specialised public service asset is required.

4. Specialised public service assets may be owned by a government or other public sector entity or by a private sector entity that has contracted with the public sector to provide the required public service. It is the characteristics of the asset and the service it provides that are relevant to its valuation, not the identity or legal status of the owner. Similarly, the service may be provided by another party (eg a charity, private sector entity or other public body) whilst the ownership of the asset is retained by a public body.

5. This TIP addresses only real property interests, infrastructure assets, plant and equipment that can be described as specialised public service assets. Other types of asset held in order to provide a service to the general public are outside the scope of this paper. The guidance in this TIP supplements guidance in TIP 1 *Discounted Cash Flow* and TIP 2 *The Cost Approach for Tangible Assets a*nd only discusses matters relating these methods that are of particular relevance to specialised public service assets. For general guidance on these methods the relevant TIP should be consulted.

6. It is not uncommon for there to be laws or regulations that stipulate how valuations of public service assets are to be undertaken for different purposes. This TIP takes no account of any such national or other requirements.

Definitions

7. The following definitions apply in the context of this TIP. Similar words and terms may have alternative meanings in a different context. The IVSC's International Glossary of Valuation Terms provides a comprehensive list of defined words and terms commonly used in valuation, together with any alternative meanings.

Future Economic Benefit	A measure of the capacity of an asset to provide monetary benefits to those that hold or own that asset.
Heritage Asset	An asset having some cultural, environmental or historic significance.
Historic Property	Real property publicly recognised or officially designated by a government-chartered body as having cultural or historic importance because of its association with an historic event or period, with an architectural style, or with the nation's heritage.
Infrastructure Assets	The system of public works in a country, state or region, including roads, utility lines and public buildings Infrastructure assets usually display some or all of the following characteristics: a) they are part of a system or network; b) they are specialised in nature and do not have alternative uses; c) they are immovable; and d) they may be subject to constraints on disposal.
Investment Value	The value of an asset to the owner or a prospective owner for individual investment or operational objectives
Market Value	The estimated amount for which an asset or liability should exchange on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without compulsion.
Service Potential	The capacity of an asset to continue to provide goods and services in accordance with the entity's objectives.
Social Value	The financial and non-financial benefit to the wider community provided by an asset.

Specialised Public Service Assets

8. Like other assets, all specialised public service assets provide either service potential or future economic benefit. Service potential is a measure of the capacity of an asset to provide services or benefits to those that use that asset. Future economic benefit is a measure of the capacity of an asset to provide monetary benefits to those that hold or own that asset.

9. Some specialised public service assets may provide future economic benefits to those that own them whilst also providing a public service. Others may provide a public service with no prospect of direct future economic benefits accruing to the owner. This fundamental difference can have a significant impact on the value of such assets.

10. The valuation implications of the asset being specialised are that the specialised design or features of the asset mean that there are few, if any, similar assets that are bought or sold in the market and the asset is probably suitable only for the delivery of the specific service and therefore if demand for the service falls or ceases then so will the value of the asset.

11. The valuation implication of the asset being held or operated to provide a public service is that public services often either do not generate income to the owner of the asset or if they do, that income is subsidised by public funds.

12. Many public service assets are the subject of specific service obligations imposed either by conditions on the land use or by obligations on the operating entity. These obligations may restrict the ability of the owner to deal with the assets. The impact of such service obligations will need to be reflected when assessing value because they impact on the alternative uses available for those assets. These restrictions may mean that certain opportunities or alternative uses are not available and therefore should not be taken into account when assessing value.

Valuation Purposes

13. Valuations of public service assets may be undertaken as an input to or for a range of purposes including:

    - Inter-departmental transfer
    - Privatisation
    - Monopoly pricing
    - Cost-benefit or economic analyses, (to determine whether a public service asset is being used and managed efficiently)
    - Financial reporting

14. Many of these valuation purposes are subject to national legislation or regulation that may set down the occasions on which valuations are required, the frequency of valuations, the required bases of value and any other assumptions that have to be made. Court decisions may also determine how certain legislative provisions are to be applied. Examination of different national provisions is outside the scope of this TIP. Some of the more commonly required valuation approaches and bases are

discussed later in this TIP but these are subject to any specific requirement of the jurisdictions to which the valuation is subject.

15. Further guidance on some common valuation requirements for privatisation, monopoly pricing and financial reporting is provided later in this paper.

16. Governments and other public entities will, on occasion, elect to acquire land or other assets held in the private sector in order to create a specialised public service asset. These acquisitions are frequently made under statutory provisions that not only compel the previous owner of the asset to sell but that also determine the basis on which the price is to be calculated, which may depart from market value concepts and principles. Valuations for the statutory acquisition of assets or land for the creation of such assets are outside the scope of this paper. The cost of acquiring such assets or land under statutory provisions is not likely to be relevant in determining the subsequent value of those assets or land where the compensation arrangements depart from market value concepts and principles.

Market Value

17. The required valuation basis for many of the valuation purposes identified in para 13 is either market value, as defined and described in the IVS *Framework* or a similar market based valuation concept. Under many financial reporting standards, including the International Financial Reporting Standards (IFRSs) the required basis of value is fair value. As stated in IVS 300 *Valuations for Financial Reporting* (para G2) fair value as defined in IFRS 13 *Fair Value Measurements* will, for most practical purposes, give the same result as market value. This may also apply in other financial reporting standards. It should be noted that the International Public Sector Accounting Standards Board (IPSASB) has a current project to produce a Conceptual Framework for public sector financial reporting that includes consideration of both when valuation measurements are appropriate and the appropriate definition of value to use.

18. The application of market value to many specialised public service assets is often challenging because these assets are rarely, if ever, exchanged between willing sellers and willing buyers and therefore market participants cannot be identified. However, the conceptual framework for market value in the IVS Framework para 31(d) indicates that the present owner is included among those who constitute a willing buyer. As a consequence, there is deemed to be at least one buyer in the market, a necessary prerequisite for the hypothetical transaction described in the transaction. It is necessary to consider what that buyer would pay to a willing seller to purchase the asset.

19. The conceptual framework for market value also excludes special value, defined as an amount that reflects the particular attributes of an asset that are only of value to a special purchaser. Obviously an asset that is described as specialised must have specialised attributes that are of particular value to its owner. However, if those attributes would also be of value to any other hypothetical market participant they do not create “special value” as defined; only factors that are specific to a particular entity have to be disregarded in arriving at market value.

20. Market value reflects the highest and best use of an asset. Many specialised public service assets include land and the public service use of that land may appear to be sub optimal. By way of example, the highest and best use of land in a national park may appear to be for mining. However, the discussion in the IVS *Framework* (para 35) makes it clear that determination of the highest and best use requires only the consideration of uses that are physically possible, legally permissible and financially feasible.

21. Consequently although mining in a designated national park may be physically possible and economically feasible because there are mineral deposits present and a market for them, it may not be legally permissible because of the statutory protection of the natural environment and an obligation to maintain the existing natural state. The potential for mining should therefore be ignored in determination of the highest and best use.

22. Likewise land required for utility supply in an urban environment may be surrounded by land that is high in value, but the uses that generate that high value would only be possible on the subject land if the utility supply could be extinguished or economically relocated. In this case the alternative uses may be legally permissible, but relocating the supply may be neither physically possible nor financially feasible. The market value of the complete asset, ie the land together with the buildings and equipment providing the service, should therefore normally be based on the value of other land suitable for utility supply to that area rather than the prevailing value of land for other uses. Looked at another way, a willing buyer of the utility supply operation would not normally be willing to pay more than the cost of creating an alternative asset, and this would involve buying the least expensive land that would be suitable to provide a replacement supply for the area in lieu of the subject asset. That land may not have the same potential for more valuable alternative use as the subject land.

23. An additional factor that needs to be considered when considering the highest and best use in the context of a public service asset is that most entities providing public services are mandated or directed by government or other legal requirements to continue to provide the services for which the asset is required. This means that there is often a stronger presumption that the public service use of the land will continue to the exclusion of potentially higher value uses than would be the case with a private use.

24. It is therefore important to establish the statutory framework around the provision of the public service in question, and the obligations that this imposes for the continued use of the land. It is also important to establish whether the public service provided is likely to continue indefinitely. Even if it could reasonably be expected that the necessary consents and permissions required for a more valuable alternative use could be obtained, unless there was also a reasonable expectation that the public service would either be no longer be required in this location or that it would be legally, physically and financially feasible to relocate it, the market value normally would need to reflect the current use.

Investment Value

25. An owner of a public service entity may need to establish the investment value of the asset. In contrast to market value the inputs need not reflect those that would be made by market participants but may be based on the entity's own criteria, such as a target return on capital invested, the return

required to cover the costs of funding the provision of the asset or various measures of the benefit it can derive from the service provided.

26. Investment value is often required to help an entity establish the feasibility of a proposed investment or acquisition. An owner or operator of a specialised public service asset is likely to have different criteria for measuring the benefit that it can derive from that asset than those that would be used by the general body of market participants.

Social Value

27. Sometimes a measure is required of the potential economic impact of investment in a public service asset by measuring the anticipated benefit in monetary terms on local employment, property values, tax revenues, health, social security and welfare costs, etc. This may provide a useful indication of the social value of a specialised public service asset.

28. Social value should be distinguished from the other bases discussed in this TIP. The focus of this TIP is on the valuation of the asset itself. The measurement of the impact of that asset on other assets in other ownerships or on the wider community is not related to either the most probable amount that could be obtained in an exchange or the economic benefits that could be derived by its owner and therefore is not a "valuation" within the scope of the IVSs.[1] Discussion of the various socio-economic valuation models that are commonly used for this type of analysis is outside the scope of this TIP.

Valuation Approaches

29. All three principal valuation approaches identified in the IVSC Framework may be applied to value specialised public service assets. However, the specialised character and public service use often create difficulties in applying the market approach. Specialised public service assets are rarely traded, except by way of internal transfer between government bodies, or as part of a privatisation project. The specialised features, whether they be the design, specification or location of the asset mean that reliable comparisons can rarely be made with the prices of similar assets in the market.

30. Because many specialised public service assets either do not generate income to their owner or, if they do that income is subsidised by public funds, it is often difficult to apply an income approach. However certain public service assets may be operated and compete in a commercial environment (such as certain transport and utilities infrastructure) and in those cases an income approach to valuation may be an appropriate valuation approach. The most common method under the income approach is discounted cash flow (DCF). TIP 1 *Discounted Cash Flo*w gives guidance on the application of DCF specifically to businesses and real property, but the principles can also be applied to specialised assets that generate cash flows.

---

[1] See IVS Framework para 9

31. The value of specialised buildings, plant and infrastructure assets is often measured using the cost approach[2]. The cost approach is described in detail in TIP 2 *The Cost Approach for Tangible Assets* and readers are referred to this document for guidance on its general application.

32. While the historical or actual cost of any asset may differ significantly from the current replacement cost of an equivalent on the valuation date, this is particularly true in the case of public service assets. For example land may have been purchased to provide the public service using statutory powers at a price that reflected its potential for an alternative higher value use that would have been possible had it not been for the public service requirement. The historic price of acquisition has no relevance to the value of that land once it is part of the public service asset.

33. Depreciation adjustments to reflect physical and functional obsolescence are applied to specialised public service property as described in TIP 2. Adjustments for external obsolescence caused by environmental or locational changes can also be applied in the same way as they are applied to other types of tangible assets. However, difficulties can arise with identifying and adjusting for economic obsolescence given that many public service assets do not generate cash flows or profits.

34. Instead of considering the economic performance, ie the asset's ability to generate profit to the owner, a test of "service potential" can be applied. Service potential is a measure of the capacity of an asset to provide services or benefits to those that use that asset. When applying the cost approach to a specialised public service asset it is therefore necessary to establish the demand for the service being provided and whether this service is expected to continue. If there are indications that significant changes in demand for the service are likely in the near future, the potential of the asset may be impaired and an adjustment made in the valuation to reflect this.

35. If there are indications that the service provided may no longer be required then an alternative valuation approach based on the potential for alternative use of the asset, or more probably the land on which it is situated, may be more appropriate.

36. For the purpose of this TIP specialised public service assets are divided into four broad categories. The examples in each of the following lists are illustrative and not intended to be exclusive.

Transport and utilities infrastructure

- Roads
- Rail
- Ports
- Electricity
- Gas
- Water
- Wastewater
- Communications

[2] The "Cost Approach" under the IVSs is a term for various valuation methods that use cost as a primary input. It is not to be confused with actual or historic cost.

Governance infrastructure

- Parliament and government buildings
- Law courts
- Prisons and penitentiaries
- Emergency services (fire, police and ambulance stations)
- Military bases, command centres, munitions depots, firing ranges, etc.

Social infrastructure

- Schools, colleges, universities and research institutions
- Hospitals
- Cemeteries

Cultural, sports and recreational infrastructure

- Libraries
- Museums
- Arts and cultural centres
- Botanical gardens
- City parks and gardens
- National parks and wilderness areas

37. Within each category the assets share some distinct valuation challenges that are addressed in this paper.

Transport and Utilities Infrastructure

38. Depending on the funding model adopted by government, some transport and utilities infrastructure may be operated as private or publicly owned commercial business enterprises, as a public-private partnerships (PPP) or as government subsidised public services.

39. PPP describes a government service or private business venture which is funded and operated through a partnership of government and one or more private sector entities. There are many forms of PPP but most involve a contract between a public sector authority and a private party, in which the private party provides a public service or project and assumes financial, technical and operational risk in the project.

40. Electricity, gas, ports and communications are all examples of infrastructure that are often operated as commercial business enterprises, ie to provide future economic benefits to the owner. Toll roads are an example or an asset that may be operated under a PPP model. The income approach, most commonly discounted cash flow, is typically used when seeking to establish an enterprise value for such business enterprises. However the cost and market approaches may represent appropriate valuation methods to establish values for the underlying assets used by those enterprises with appropriate identification and quantification of physical deterioration, functional and economic obsolescence.

41. Infrastructure assets are often by definition, networks or agglomerations of multiple individual components, each having their own characteristics. If the cost approach is used, the appropriate level of componentisation will need to be considered. For instance rail infrastructure comprises earthworks, ballast, sleepers, rail, bridges, culverts, signalling, communications systems, station buildings, etc. Each may have its own life cycle and therefore need to be addressed separately in the valuation analysis.

42. Because such assets are often monopolistic, charges for goods and services provided by those assets may be regulated by government. Whilst this may have an impact on the future economic benefits that can be derived from those assets, the income approach generally remains the most appropriate valuation approach to establish the market value of the business enterprise to which those assets belong. However because such a valuation method will capture, by default, both tangible and intangible assets, it is common practice to use this method in conjunction with the cost and market approaches to determine the value of the underlying tangible assets.

Governance Infrastructure

43. Many buildings used for the administration of government or public protection are not specialised and therefore fall outside the scope of this paper. However, many others are specialised and suitable only for the specific use for which they were designed, and for which there is no active market. The majority of governance infrastructure is operated as a government funded public service and as a result the cost approach is commonly used to value such assets with appropriate adjustment to reflect the asset's service potential (see para 34).

44. In some jurisdictions, assets such as courts, prisons, military bases and emergency service facilities may be operated by private sector entities as commercial business enterprises or PPPs, notwithstanding that their income is most likely derived directly from government. As discussed above, where this is the case the income approach may represent the most appropriate valuation method for the overall business enterprise.

45. Many parliament, government and law court buildings are of historical or heritage value. The current Annexe to IVS 230, *Historic Property*, discusses the treatment of such assets and is reproduced at Appendix 2 of this paper. It is proposed to remove this from IVS 230 and include with the future TIP.

Social Infrastructure

46. Educational institutions and hospitals may either be operated as commercial business enterprises (possibly with some level of direct or indirect government funding) or as fully government funded public services.

47. If the assets are operated to generate future economic benefits to the owner, for example under a PPP contract, an income approach is normally appropriate. However, where the majority of services are offered to the public and funded from general taxation rather than a direct charge for the service delivered, it is more usual to apply the cost approach. If there are similar assets operated on a commercial basis it may be possible to extrapolate some data from that market to act as a benchmark and, in particular, to help inform the appropriate adjustments for obsolescence.

Cultural, Sports and Recreational Infrastructure

48. Some sports and cultural venues, eg sporting stadia, theatres, etc, are operated as commercial business enterprises. These are outside the scope of this TIP. However, it is not unusual for sports and recreational property to be owned by public sector entities to provide services that are either free of charge or subsidised from public funds. This will often arise where provision of the facility is perceived to be for the general public benefit but the activity is one that is not regarded as financially feasible by private providers.

49. Assets such as public sports centres and swimming pools normally impose an admission charge but this may be neither reflective of the full cost of providing the service nor a reliable indicator of the value of the facility. If similar facilities are offered by commercial operators it may be possible to make comparisons with these operations in order to adjust the cash flows of a public facility and apply an income approach. If a cost approach is used, the adjustments for functional and economic obsolescence are often significant for this type of asset as their popularity and usage is heavily influenced by public trends.

50. Facilities such as public open space and informal, recreational facilities may provide an intangible benefit to the public but only have a tangible value where there is a reasonable prospect of an alternative use, see paras 20 – 24. However within such facilities there may be specific assets, eg commercial retail, food outlets, etc., for which a tangible value can be identified.

Valuation Purposes

Financial Reporting

51. Many assets used to provide public services are owned by public sector entities. In many countries public sector entities are required to produce financial statements in accordance with prescribed accounting standards.

52. Appendix 1 of this TIP discusses the current valuation requirements of the International Public Sector Accounting Standards (IPSASs) with regard to property, plant and equipment held by the public sector. However, it should be noted that many countries have not adopted the IPSASs and that there are currently many national variations. It is outside the scope of this paper to examine the different accounting requirements for public sector entities in different countries and the valuation or other measurement requirements that they contain.

53. The IPSASs are generally based on the principles of the IFRSs but with supplemental provisions to aid application of those principles to the public sector. However, the IPSASs do not currently contain an equivalent to IFRS 13 *Fair Value Measurement* and the IPSASB is currently consulting on the measurement concepts that underpin the selection of measurement bases for publicly owned assets.

54. Private sector entities that own specialised public service assets will also need to produce financial statements in accordance with the relevant accounting standards. The IFRSs are widely adopted but as in the case of public sector entities, national standards may prevail. Guidance on the valuation requirements generally under the IFRSs is contained in IVS 300 *Valuations for Financial Reporting.* Although the guidance in IVS 300 and in this TIP may be applicable where other accounting

standards contain similar provisions, the IVSC makes no assertion as to the relevance of this guidance to such standards.

55. The guidance in this TIP on estimating the market value of specialised public service assets can be applied to financial reporting where IFRS “fair value” or a similar basis of value is required.

56. A particular problem can arise where the relevant accounting standards require separate values for the land and the buildings for depreciation purposes. The guidance in IVS 300 (para G12) indicates that this is normally done by establishing the value of the land and then deducting this from the value of the carrying amount for the real property interest to provide an allocation between the land, which is not depreciated, and the buildings and improvements that are subject to depreciation. Difficulties arise with undertaking this allocation for specialised public service properties because if there is a lack of an active market for the entire asset the same is likely to be true in relation to the land.

57. In some cases there may be market evidence for land for a use with similar characteristics to the actual use that can be used as a proxy in absence of a market for the actual use. For example, infrastructure for supply of a utility may be on land that would otherwise be zoned for industrial use and therefore the value of industrial land would be a reasonable basis to use for allocation.

58. In other cases identifying a proxy use will not be possible due either to the configuration of the land or its use. For example land corridors required for road, rail and other network type infrastructure may be physically unlike any other land for which there is an active market and may pass through land with many different uses.

59. One approach is to value corridor land by reference to the value of adjoining land however this has obvious disadvantages where the corridor passes through a mixture of land uses with greatly differing values, as would be the case with an inter-city highway. This may be addressed by segmenting the land corridor into sections that reflect the variations in the value of adjoining land. Adjustments may also be required where the use of the land as an infrastructure corridor represents a sub-optimal use of the land.

60. Where it is possible to determine a value for the entire infrastructure asset, eg in the case of a toll road where an income approach can be used to determine a value that reflects the benefits and usage, a land value may be estimated by deducting the replacement cost of the infrastructure built on the land, adjusted for obsolescence, from the value of the whole in order to arrive at an allocation for the land. Although the cost of acquiring the land will normally be irrelevant to its current value (see para 16) another approach is to calculate the allocation of the overall value to the land and the infrastructure based on the ratio of the original land cost to the original construction cost.

61. Allocation of an asset’s value to components of that asset for accounting purposes is a hypothetical exercise and appropriate caveats should be made when reporting.

Privatisation

62. Valuations may also be required when assets transition from the public to the private sector. When governments sell assets to the private sector there is typically a bidding process in which potential

buyers consider the future economic benefits of ownership of those assets. These future economic benefits may be quite different to those available to the government entity that currently owns the assets, especially if that entity operates as a not-for-profit entity. Accordingly mismatches in value before and after the transaction may occur.

Monopoly Pricing

63. Monopoly power may lead to excess profits being made by suppliers if prices are charged above the true marginal cost of supply. Regulators attempt to prevent operations that are against the public interest by imposing monopoly pricing arrangements that limit the amount the monopoly asset owner can charge for the provision of a service.

64. Such monopoly pricing arrangements typically include some form of regulated return of and on capital. The return on capital is typically based on the value of the assets used to provide the service. The cost approach is often used to determine such values. However, due to the circularity between the asset values and the revenues, economic obsolescence is not typically measured in such a valuation whereas physical and functional obsolescence are typically reflected.

65. The basis of valuation required is usually defined in the relevant regulatory framework. The Organisation for Economic Cooperation and Development (OECD) promotes Depreciated Optimised Replacement Cost (DORC) which it defines as: "An approach to allocating the capital costs of a project under which the regulatory asset base is periodically re-valued to be equal to the price of building or buying a modern equivalent asset, depreciated to reflect the shorter remaining life of the existing assets." [3] It can be seen that DORC is broadly consistent with the principles of the cost approach as described in TIP 2. The emphasis on the optimisation process is one added by regulators but is implicit in any properly applied cost approach.

66. Other definitions of the required basis of valuation, valuation approach or both will be found in national legislation or regulation, but most involve variations on establishing a basis of value using a cost approach.

[3] OECD, Glossary of Statistical Terms

Appendix 1

Valuations for Financial Reporting under IPSAS

International Public Sector Accounting Standards

A1.1 The International Federation of Accountants (IFAC) International Public Sector Accounting Standards Board (IPSASB) develops accounting standards for public sector entities, referred to as International Public Sector Accounting Standards (IPSASs. The extracts from IPSAS 17 and IPSAS 21 in paras A6, A8 and A10 are from the *2010 IFAC Handbook of International Public Sector Accounting Pronouncements* of the IPSAS Board, published by IFAC in May 2010 and are used with permission of IFAC.

A1.2 The IPSASs and their interpretation change over time. Accordingly, references in this document are liable to become out of date. This document should not be used as a substitute for referring to current IPSASs as published by IFAC. The current versions of IPSAS can be obtained from www.ifac.org/PublicSector.

A1.3 The IPSASs generally contain similar principles to the IFRSs but related to the public sector environment. This includes a requirement for certain assets and liabilities to be measured at fair value. However, the IPSASs do not currently include an equivalent to IFRS 13 *Fair Value Measurement* and the IPSASB is currently consulting on the appropriate measurement basis for assets held by public sector entities as part of its Conceptual Framework project.

Types of Public Sector Property, Plant and Equipment Assets

A1.4 Property in the public sector comprises conventional cash-generating and non-cash-generating assets as well as *specialised property* and assets, including heritage and conservation assets, infrastructure assets, public buildings, public utility plants and recreational assets. As with private sector assets, public sector assets fall into operational and non-operational categories. Non-operational assets include investment and surplus assets. These categories are accounted for in different ways.

A1.5 Many “heritage assets” are held in the public sector. A heritage asset is an asset having some cultural, environmental or historical significance. Heritage assets may include historical buildings and monuments, archaeological sites, conservation areas and nature reserves, and works of art. Heritage assets often display the following characteristics, although these characteristics are not necessarily limited to heritage assets:

- their economic benefit in cultural, environmental, educational and historic terms is unlikely to be fully reflected in a financial value based purely on market price,

- legal and/or statutory obligations may impose prohibitions or severe restrictions on disposal by sale,
- they are often irreplaceable and their economic benefit may increase over time even if their physical condition deteriorates,
- it may be difficult to estimate their useful lives, which in some cases could be hundreds of years.

Operational Property, Plant and Equipment

A1.6 Like its IFRS counterpart, IAS 16, IPSAS 17 *Property, Plant and Equipment* permits two models for the recognition of operational assets in the statement of financial position: a cost model and a fair value model. Where the fair value model is applied, a current revaluation of the asset is required. Where an entity adopts the fair value revaluation option, the assets are included in the statement of financial position at their fair value. IPSAS 17 paras 45 to 47 stipulate the following:

"The fair value of items of property is usually determined from market based evidence by appraisal. The fair value of items of plant and equipment is usually their market value determined by appraisal."

"If no market evidence is available to determine the market value in an active and liquid market of an item of property, the fair value of the item may be established by reference to other items with similar characteristics, in similar circumstances and location."

"If there is no market-based evidence of fair value because of the specialised nature of the item of plant and equipment, an entity may need to estimate fair value using … depreciated replacement cost, or the restoration cost or service unit approaches …"

A1.7 It will be noted that the description of fair value above differs from the definitions of fair value both the IVS Framework and IFRS 13.

Absence of Market Evidence

A1.8 For some public sector assets, it may be difficult to establish their value because of the absence of market transactions for these assets. Some public sector entities may have significant holdings of these assets. IPSAS 17 para 47, gives the following guidance:

"… the fair value of vacant government land that has been held for a long period during which time there have been few transactions may be estimated by reference to the market value of land with similar features and topography in a similar location for which market evidence is available. In the case of specialised buildings and other man-made structures, fair value may be estimated by using depreciated replacement cost, or the restoration cost or the service units approach (see IPSAS 21). In many cases, the depreciated replacement cost of an asset can be established by reference to the buying price of a similar asset with similar remaining service potential in an active and liquid market. In some cases, an asset's reproduction cost will be the best

indicator of its replacement cost. For example, in the event of loss, a parliament building may be reproduced rather than replaced with alternative accommodation because of its significance to the community."

A1.9 Because of the lack of evidence of comparable market transactions for many public sector assets, the *market approach* often cannot be used. The above paragraph sanctions the use of alternative valuation methods to measure the fair value of an asset, all of which fall within the *cost approach* described in the IVS *Framework* and TIP 2 *The Cost Approach for Tangible Assets*. IPSAS 21, referred to below, contains some guidance on these methods.

Impairment

A1.10 IPSAS 21 *Impairment of Non-Cash-Generating Assets* contains similar provisions to IAS 36, see IVS 300. The test for a non-cash-generating asset for impairment, which will include most property, plant and equipment held for the provision of a public service, requires the carrying amount to be adjusted to the higher of its fair value less costs to sell or its value in use. IPSAS 21 para 14, provides that the value in use of a non-cash-generating asset is the present value of the asset's remaining "service potential". The standard then gives further guidance on methods for assessing the remaining service potential as follows:

(a) Depreciated Replacement Cost Approach – IPSAS 21 paras 41 to 43:

"Under this approach, the present value of the remaining service potential of an asset is determined as the depreciated replacement cost of the asset. The replacement cost of an asset is the cost to replace the asset's gross service potential. This cost is depreciated to reflect the asset in its used condition. An asset may be replaced either through reproduction (replication) of the existing asset or through replacement of its gross service potential. The depreciated replacement cost is measured as the reproduction or replacement cost of the asset, whichever is lower, less accumulated depreciation calculated on the basis of such cost, to reflect the already consumed or expired service potential of the asset.

The replacement cost and reproduction cost of an asset are determined on an 'optimized' basis. The rationale is that the entity would not replace or reproduce the asset with a like asset if the asset to be replaced or reproduced is an overdesigned or overcapacity asset. Overdesigned assets contain features which are unnecessary for the goods or services the asset provides. Overcapacity assets are assets that have a greater capacity than is necessary to meet the demand for goods or services the asset provides. The determination of the replacement cost or reproduction cost of an asset on an optimized basis thus reflects the service potential required of the asset.

In certain cases, standby or surplus capacity is held for safety or other reasons. This arises from the need to ensure that adequate service capacity is available in the particular circumstances of the entity. For example, the fire department

needs to have fire engines on standby to deliver services in emergencies. Such surplus or standby capacity is part of the required service potential of the asset."

(b) Restoration Cost Approach – IPSAS 21 para 44:

"Restoration cost is the cost of restoring the service potential of an asset to its pre-impaired level. Under this approach, the present value of the remaining service potential of the asset is determined by subtracting the estimated restoration cost of the asset from the current cost of replacing the remaining service potential of the asset before impairment. The latter cost is usually determined as the depreciated reproduction or replacement cost of the asset whichever is lower. Paragraphs 41 and 43 include additional guidance on determining the replacement cost or reproduction cost of an asset."

(c) Service Units Approach – IPSAS 21 para 45:

"Under this approach, the present value of the remaining service potential of the asset is determined by reducing the current cost of the remaining service potential of the asset before impairment to conform with the reduced number of service units expected from the asset in its impaired state. As in the restoration cost approach, the current cost of replacing the remaining service potential of the asset before impairment is usually determined as the depreciated reproduction or replacement cost of the asset before impairment, whichever is lower."

A1.11 IPSAS 17 recognises that some heritage assets have service potential other than their heritage value, eg a historic building being used for office accommodation. In these cases, they may be recognised and measured on the same basis as other items of property, plant and equipment. For other heritage assets, their service potential is limited to their heritage characteristics, eg monuments and ruins. The existence of alternative service potential can affect the valuation approach adopted.

Appendix 2

This is a reproduction of the Annexe to IVS 230 published in 2011.

HISTORIC PROPERTY

A1. This Annexe gives additional guidance on matters that require consideration when valuations are undertaken of interests in historic *real property*.

A2. A historic property is *real property* that is publicly recognised or officially designated by a government body as having cultural or historic importance because of its association with a historic event or period, with an architectural style or with a nation's heritage. The characteristics common to historic property include the following:

- its historic, architectural and/or cultural importance,
- the statutory or legal protection to which it may be subject,
- restraints and limitations placed upon its use, alteration and disposal,
- a frequent obligation in some jurisdictions that it be accessible to the public.

A3. Historic property is a broad term, encompassing many property types. Some historic property is restored to its original condition, some is partially restored, eg the building façade, and others are not restored. Historic property also includes properties partially adapted to current standards, eg the interior space, and properties that have been extensively modernised.

Protection of Historic Property

A4. Historic property may have legal or statutory protection because of its cultural and economic importance. Many governments have enacted measures to safeguard specific historic property or to protect whole areas of special architectural or historic interest.

A5. The UNESCO[4] Glossary of World Heritage Terms defines cultural heritage and cultural property as follows:

"Cultural Heritage. Three groups of assets are recognized:

(a) Monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;

(b) Groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science; and

[4] UNESCO is the United Nations Educational, Scientific and Cultural Organization.

(c) *Sites: works of man or the combined works of nature and man, and areas including archaeological sites, which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view."*[5]

"Cultural Property is property inscribed in the World Heritage List after having met at least one of the cultural heritage criteria and the test of authenticity."[6]

A6. Not all historic property is necessarily recorded in registers of officially designated historic properties. Many properties having cultural and historic importance also qualify as historic property.

Features of Historic Property Affecting Valuations

A7. The valuation of historic property requires consideration of a variety of factors that are associated with the importance of these properties, including the legal and statutory protections to which they are subject, the various restraints upon their use, alteration and disposal, and possible financial grants, tax rate or tax exemptions to the owners of such properties in some jurisdictions.

A8. When undertaking a valuation of a historic property, the following matters should be considered depending upon the nature of the historic property and the purpose of the valuation:

(a) The costs of restoration and maintenance may be considerable for historic property and these costs, in turn, affect the value of the property.

(b) Legal measures to safeguard historic property may limit or restrict the use, intensity of use or alteration of a historic property. Examples include the following:

- restrictive covenants that apply to the land regardless of the owner,
- preservation easements that prohibit certain physical changes, usually based on the condition of the property at the time the easement was acquired or immediately after proposed restoration of the property,
- conservation easements that limit the future use of a property so as to protect open space, natural features or wildlife habitat.

A9. The valuation of historic property involves special considerations dealing with the nature of older construction methods and materials, the current efficiency and performance of such properties in terms of modern equivalent assets, the appropriateness of methods used to repair, restore, refurbish or rehabilitate the properties, and the character and extent of legal and statutory protections affecting the properties.

A10. The land or site upon which a historic property stands may be subject to constraints upon its use. In turn, any such constraints will affect the overall value of the historic property.

---

[5] World Heritage Convention, Article I, UNESCO, 1972.

[6] World Heritage Convention, Article II, UNESCO, 1972.

A11. In some cases historic property may be incapable of reliable valuation because there is no relevant market evidence, no potential for generating income and no demand to warrant replacement. An example would be a partially ruined building with no income generating potential; although it may well have historic significance, this could not be replicated or replaced.

Valuation Approaches

A12. The three principal valuation approaches described in the IVS *Framework* can all be applied to the valuation of a historic property.

Market Approach

A13. In applying the *market approach*, the historic nature of the property may change the order of priority normally given to attributes of comparable properties. It is especially important to find comparable properties with historic features similar to those of the subject historic property. Criteria for the selection of comparable properties include architectural style, property size, specific cultural or historic associations of the subject property and similarity in location as regards zoning, permissible use, legal protection and concentration of historic properties. A variety of adjustments may have to be made to the comparable sales. These involve differences in location, costs of restoration or rehabilitation, or specific encumbrances. Adjustments are normally made in the following situations:

- when costs must be incurred to restore or rehabilitate the subject property, but not the comparable sales,
- where the specific encumbrances upon the subject property, eg restrictive covenants or preservation easements, differ from those upon the comparable properties.

Income Approach

A14. Historic property fully utilised for commercial purposes may be valued by means of the *income approach*. Where the distinctive physical features of a historic property contribute to its drawing power under an income producing use, it is particularly important to reflect the cost of any work necessary to restore, adapt or maintain the features of the property. Where work is required, allowances should be made for the time and cost involved in obtaining any necessary statutory consent.

Cost Approach

A15. When applying the *cost approach* to the valuation of a historic property, consideration is given to whether the historic features of a building would be of intrinsic value in the market for that property. Some historic buildings will be of value simply because of their symbolic status. For example, a historic building used for a famous art gallery could be just as or more important than the function it fulfils. In this situation, the service potential of such a building is inseparable from its historic features. The modern equivalent of such properties would need to reflect either the cost of reproducing a replica, or if this is not possible because the original materials or techniques are no longer available, the cost of a new building with a similarly distinctive and high specification.

A16. In many cases, the historic features will either add no value or be viewed as an encumbrance by a purchaser, eg a hospital operating in a historic building. In such cases, the modern equivalent would reflect the cost of a new building constructed to a conventional modern specification.

A17. In all cases, the adjustments for physical deterioration and functional obsolescence will need to reflect factors such as the higher cost of maintenance associated with the historic property and the loss of flexibility for adapting the building to the changing needs of an occupier.