

Illustrative Examples for Fair value Measurement

This document should be read in conjunction with NCAP 3 Valuation of Assets (including the Appendices).

Level 1 inputs in the fair value hierarchy in AASB 13 are unadjusted quoted prices in active markets for items identical to the asset being measured at the measurement date. As non-financial assets are rarely identical to each other, it is considered that Level 1 measurements are most unlikely to arise for non-financial assets.

LAND

Land values will be determined using level 2 and/or level 3 inputs. Where there is insufficient market evidence and/or significant adjustments are necessary to available sales data, the valuation will be categorised within level 3 of the fair value hierarchy.

Example 1 - Land used for operational purposes

- An agency controls a property in a Brisbane suburb from which it is planned to build a commercial building on that land. There is an active market for property in that suburb (and surrounding locality) with sufficient available information about sales of commercial land over the past year. The highest and best use of the land is considered to be for commercial/retail activities.
- Therefore a market approach is appropriate.
- The valuer compares the agency's property to comparable properties with similar characteristics (e.g. land area, street frontage and access, etc.) sold over the past year. The valuer derives the land value of agency's property by a direct comparison approach. This approach is based on the comparable recent land sales, and so entails some professional judgement based on observable market data. The process also reflects how a commercial investor would determine an appropriate amount to pay for that land.
- The resulting valuation is categorised into level 2 of the fair value hierarchy.

Example 2 – Vacant land

- An agency controls a large parcel of vacant land outside a rural town. It was previously intended that a primary industry research facility be constructed on that land, but a recent change in service delivery strategies resulted in a decision to abandon that plan. The agency has no other foreseeable use for the land, and there are no legislative restrictions on the land that prevent certain uses. The land is surrounded by well-established and profitable orchards, so the highest and best use of the land is considered to be for farming purposes. Sales of farms in the area are rare. The relevant market evidence available is sales of nearby orchards over a number of years.

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- A market approach is used.
- The valuer applies a moderate amount of professional judgement to compare the sale price for the orchards taking into account current market conditions in that area, as well as any costs that would be incurred to prepare the land for farming purposes. The judgements made by the valuer reflect the valuer's assessment of how a potential farmer (a market participant) would "price" the land, including any assumptions a potential farmer would make in that process.
- The resulting valuation is categorised into level 2 of the fair value hierarchy.

Example 3 – Reserve land

- An agency administers vacant reserve land on behalf of the State Government. Under the *Land Act 1994*, such reserve land is dedicated by the Minister for community purposes e.g. for cemeteries, parks, public halls, public toilets, showgrounds, travelling stock routes etc. The Minister can remove this usage restriction and publicise such removal through the Government Gazette. In fact, such removal of the restriction and the conversion of the land to freehold title must be undertaken prior to sale of such land. A similar local government town planning restriction also exists over the land.
- A directly observable market and market participants are not available for reserve land while it is subject to the Minister's restriction. However, there is an active market for vacant land in that local government area, where such land is subject solely to town planning restrictions. Hence, recent data on such land sales is a reliable starting point to estimate the fair value of the agency's specific land.
- A direct comparison (i.e. market) approach is used for valuation purposes.
- The fact that the Minister would need to remove the reserve restriction prior to sale is a key assumption in the valuation process. The valuer gives particular consideration to those recent land sales where the land is of similar topography or in similar circumstances (e.g. town planning restrictions) to the agency's land.
- Highest and best use is limited by the town planning restrictions. The valuer uses significant professional judgement (i.e. unobservable inputs) in extrapolating from the recent land sales, taking into account the town planning restrictions and any significant differences between the agency's land and the land recently sold.
- The resulting valuation is categorised into level 3 of the fair value hierarchy.

BUILDINGS

Building values are likely to be assessed at level 2 or level 3 of the fair value hierarchy, subject to the characteristics of the building and availability of market information.

Residential dwellings and general-purpose commercial buildings would normally be valued using a market approach by reference to publicly available sales data or data/multiples relating to market rentals in the particular area (i.e. level 2, but subject to the extent of any adjustments considered appropriate). Where such data is not available, however, a cost approach would be necessary, using inputs that would most likely result in a level 3 fair value.

Valuations of special-purpose buildings that have limited other uses, are likely to demand use of a cost approach due to likely limited market evidence for similar buildings. The resulting valuation would likely be categorised within level 3 of the fair value hierarchy.

Example 4 – Residential dwelling

- An agency controls a 2 year-old 3 bedroom residential dwelling in a regional city for the accommodation of temporary relief staff for its regional office. The agency's dwelling is located in a large housing estate of similar size dwellings that were all constructed around the same time.
- Due to the city's population growth in recent years in conjunction with a range of new industries becoming established there, the residential property market (both for sales and rentals) is very active, particularly across the estate in which the agency's dwelling is located. Given the size and design of the dwelling and the underlying block of land, in conjunction with buoyant residential property market in that city, the property's use as a private residence is believed to represent its highest and best use. Sufficient information is publicly available about sales of similar dwellings over the past year. Information is also available about the apportionment of the overall property sale amounts between the land and dwelling elements.
- Therefore a market approach is appropriate, and the net method of revaluation is used.
- Due to the number of recent sales in the same estate of comparable dwellings (in terms of size, age etc), the valuer used direct comparison from the sales prices, without making any significant adjustments. There are also sufficient recent land sales to allow the valuers to apportion the value of land from the added value of the improvements. The methodology used reflects the valuer's expectations of how a private investor would determine an appropriate value for the dwelling.
- The resulting valuation of the dwelling is categorised into level 2 of the fair value hierarchy.

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Example 5 - CBD office building

- An agency controls a property in Brisbane's CBD on which it has a 20 year-old multi-storey office tower rented to a number of other Government entities for use as office space. The building has not had any significant refurbishment during its life. Many other multi-storey office towers exist in the CBD. Given the location, number of floors, and the area and internal layout of the building, the highest and best use is considered to be as office space.
- There is an active rental market for office space in the CBD (and adjoining suburbs). Advertisements of office space for rental in CBD buildings publish the rental rate per square metre sought by building owners. Therefore, an income approach to the valuation may be adopted, and the net method of revaluation can be used.
- The valuation of a CBD building may be determined by applying normal commercial valuation methodologies such as direct comparison, capitalisation or discounted cash flow. The valuer establishes an applicable rental for the building based on the analysis of recent market rental evidence. The valuer then considers the age, condition and location of the agency's building. Based on the valuer's knowledge of vacancy rates for other CBD office towers, the valuer determines the vacancy rate that the agency's building is likely to experience into the foreseeable future. In preparing a valuation for the building the valuer will determine a net rental based on the lettable area of the building and the applicable market rents for the building, less any outgoings and vacancies. The valuer will establish a capitalisation rate or expected rate of return from the analysis of market sales evidence. The methodology used reflects the valuer's expectations of how a commercial investor would determine an appropriate value for the building.
- Due to the availability of the market evidence, the resulting valuation is categorised into level 2 of the fair value hierarchy.

Example 6 - Youth detention facility in remote community (buildings only)

- An agency's youth detention facility has been in operation since 1998 and is intended to continue to be used into the foreseeable future. The facility's records indicate that the average occupancy of the facility over its life is 62 per cent and has never exceeded 80 per cent at any given time.
- The community's population and demographics have been very stable over the last 20 years, and there are no local developments that are expected to have any significant impact into the foreseeable future. Property sales in that area are very infrequent, and detention facilities are not generally operated commercially. The internal design of the building, and the remote location, severely limit the building's potential for other uses, so the present use is considered to represent highest and best use.

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- Therefore, a cost approach (i.e. depreciated replacement cost) is used, and the gross method of revaluation is applied.
- Estimated costs are determined for each element of the facility, using a combination of historical records of construction costs (labour and materials) of detention facilities in other regions in the past five years (adjusted as appropriate for varying transportation costs and design differences), and published construction rates for various standard components of buildings. Given the history of less than full occupation of the facility, costs are estimated to reproduce a facility of only 80% of the current capacity (as a market participant would not place any value on the excess capacity). The valuer also uses significant judgement to assess the remaining service potential of the building, given local climatic and environmental conditions. The remaining service potential is reflected in restated accumulated depreciation for the building. This judgement is based on records of the current condition of the facility, along with local experience with other buildings in that community. The methodology used reflects the valuer's expectations about how a potential private operator would determine the maximum amount it would be prepared to pay for the facility.
- The resulting valuation is categorised into level 3 of the fair value hierarchy.

MAJOR PLANT AND EQUIPMENT

Major plant and equipment is likely to be categorised into level 2 or level 3 of the fair value hierarchy, subject to the characteristics of, and existence of markets for, the items concerned. Non-specialised major plant and equipment for which there is an active market would normally be valued using a market approach by reference to publicly available sales data (most likely resulting in a level 2 valuation).

Specialised major plant and equipment that has limited other uses is likely to demand a cost approach for their valuation, due to limited market evidence for similar equipment. The resulting valuation would generally be categorised within level 3 of the fair value hierarchy.

Example 7 – Helicopter

A helicopter is operated by an agency for the transfer of patients between a number of small rural hospitals and major hospitals in regional cities.

Variation 7(a)

- The agency's helicopter is 18 months old, and is a widely available model that has been on the market for around five years. The specialised fitout of the helicopter that has been undertaken can be readily

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removed (so there are no limitations on potential uses for the helicopter). There exists a reputable publicly available annual listing of recommended selling prices of used helicopters of a wide range of makes, models and ages, including the model purchased by the agency.

- Therefore, a market approach is appropriate, and the net method of revaluation is used.
- The recommended selling prices are framed according to ranges of flight hours completed over the helicopter's life i.e. less than 2,000 hours, 2,001 - 5,000 hours, 5,001 - 10,000 hours etc. As the agency's helicopter has completed 4,500 hours, the valuer makes a notional adjustment to the recommended selling price for a helicopter of the same model that has completed between 2,001 - 5,000 hours. This adjustment is to take into account that the physical wear and tear of the agency's helicopter is likely to be slightly greater than most used helicopters in that price range. The scale of adjustment reflects what a potential buyer is likely to apply in putting forward an offer to buy the agency's helicopter.
- The resulting valuation of the helicopter is categorised into level 2 of the fair value hierarchy.

Variation 7(b)

- The agency's helicopter model is five years old, and that model was discontinued by the manufacturer soon afterwards, due to the manufacturer introducing substantially more fuel efficient models (with otherwise similar features). The specialised fitout of the helicopter that has been undertaken can be readily removed, so there are no limitations on potential uses for the helicopter. There exists a reputable publicly available annual listing of recommended selling prices of used helicopters of a wide range of makes, models and ages, but the model owned by the agency has not been listed for the last two years.
- The valuer decides to use this information as a basis for the valuation (i.e. a market approach), and the net method of revaluation is applied.
- The recommended selling prices are framed according to the total flight hours completed over the helicopter's life i.e. less than 2,000 hours, 2,001 - 5,000 hours, 5,001 - 10,000 hours etc. The agency's helicopter has completed 9,400 hours, so the valuer makes a notional adjustment to the recommended selling price for the more fuel efficient model that has completed 10,000 hours. This adjustment reflects the relatively lesser physical wear and tear of the agency's helicopter. However, a substantial downwards adjustment is also applied to take account of the relatively inferior fuel efficiency of the agency's helicopter, along the lines of what a potential buyer would be expected to determine.
- Due to the scale of the adjustments made to market evidence for similar helicopters, the resulting valuation of the helicopter is categorised into level 3 of the fair value hierarchy.

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Example 8 - Fire engine

- An agency operates a fire engine in a particular rural area. The fire engine needs to traverse a large geographical area with quite rough terrain in parts, few formed roads, and limited access to water. It is also used for rescues of people associated with traffic accidents. Hence, the agency arranged for substantial modifications to increase on-board water storage, improve the truck's suspension, and include specialised equipment needed for rescue operations. While such modifications were intended for conditions in that particular area, they don't prevent operation of that fire engine in other localities.
- Due to the non-standard and extensive nature of the fit-out, there is unlikely to be an active market for similar assets.
- Therefore, a cost approach to the valuation is considered more appropriate, and the gross method of revaluation is applied.
- The upfront purchase cost of the base fire engine is sourced from marketing material available on supplier web sites. The valuer also estimates the cost of each element of the specialised fit-out, based on the most recent records (labour and material costs) of such fit-out on other fire engines used by the agency. If such fit-out has not been undertaken for at least two years, the valuer adjusts for inflation in the meantime. The valuer also uses significant judgement to assess the remaining service potential of the fire engine, given local climatic and environmental conditions.
- The remaining service potential is reflected in restated accumulated depreciation. This judgement is based on records of the current condition of the fire engine, along with experience with other fire engines operated by the agency. The methodology used reflects the valuer's expectations about how a potential buyer would determine the maximum amount it would be prepared to pay for the fire engine.
- The resulting valuation is categorised into level 3 of the fair value hierarchy.

INFRASTRUCTURE

A market approach is unlikely to be viable when valuing infrastructure, as such items are not usually traded between entities. In very limited situations, an income approach may be possible/appropriate if the infrastructure is capable of generating an income. In such situations, it may be possible that a minority of the data inputs for the valuation would be categorised as level 2 inputs. It would generally be expected that infrastructure is measured using a cost approach. The inputs used for a cost approach would probably be categorised as level 3, depending on the significance of adjustments made to any available relevant observable data.

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Example 9 – Public transport infrastructure

- An agency operates busways between Brisbane's CBD and suburbs in a number of directions. The infrastructure varies between 5 and 10 years-old. There is no market for such an infrastructure system, as the agency currently has an effective monopoly over the provision of busways. Further, there is no alternative use for the busways due to their physical characteristics and design. The agency does not directly charge for use of the busway, but is provided with appropriation funding to meet the costs of operation, maintenance and upgrade of the infrastructure. Hence, there is no evidence of sales of such infrastructure between entities or of potential revenue that could be generated from operating busways.
- Under these circumstances, the agency considers a cost approach is the only appropriate approach, and the gross method of revaluation is applied.
- Estimated costs are determined for each element of each busway, using as a starting point historical records of construction costs (labour and materials) of the recent busway constructed and published construction rates, adjusted as appropriate for design differences and inflationary impacts since then. The valuer also uses significant judgement to assess the remaining service potential of each busway, given current and projected bus traffic and foreseeable environmental conditions. The remaining service potential is reflected in restated accumulated depreciation for each busway. This judgement is based on records of the current condition of each busway, along with the agency's experience with responsive maintenance. The methodology used reflects the valuer's expectations about how an alternative entity (e.g. the local government) would determine the maximum amount it would be prepared to pay for (or for it to arrange construction of) the infrastructure.
- The resulting valuation is categorised into level 3 of the fair value hierarchy.

HERITAGE AND CULTURAL ASSETS

A market approach may be possible for particular items such as artworks, jewellery, ornate furniture, collection, etc., provided there is observable market-based information on sales of similar items. By their nature, it is unlikely that revenue could be generated by such items, so an income approach is highly unlikely to be appropriate. It is expected that heritage and cultural assets would generally be measured using a cost approach. The inputs used for a cost approach would most likely be categorised as level 3, in light of the unique heritage and cultural properties of such items.

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Example 10 - Artwork

- A 10 year-old painting by a well-known and prolific Aboriginal artist is preserved by the Art Gallery. That artist's death around a year ago has generated considerable buyer interest in his past works. As a result, there exist publicly available records of sale prices during the last 12 months for other similar paintings by that artist (similar in terms of subject matter of the painting, size, age and standard of preservation) through private auction houses.
- Given the recent circumstances, a market approach is considered appropriate, and the net method of revaluation is used.
- The agency engages a valuer with specific expertise in assessing paintings. Using the sales evidence of similar paintings by the same artist as a basis, the valuer determines a valuation for the Art Gallery's painting. The valuer analyses the sale prices over the last 12 months, specifically identifying the highest and lowest price and variability within that range. A cluster of the sale prices were within \$1,000 of each other, so the valuer selects the median price within that cluster. That is considered to reflect how a potential buyer would price the Art Gallery's painting at present.
- Due to the level of judgement exercised by the valuer, the resulting valuation is categorised as level 3.

Example 11 - Heritage structure

- A stone lighthouse was constructed 100 years ago and has heritage listing due to its location on a very treacherous stretch of coastline and the role the lighthouse played in the safe passage of cargo ships between capital cities (and therefore the early development of commerce between those centres). However, the lighthouse has not been fully operational for at least 20 years, with a significant decline in maritime freight, changed shipping routes, and ships these days having technology that reduces the risk of running aground. The lighthouse is simply preserved by the Government as a tourist attraction now, for which a nominal entry fee is charged.
- As there is no evidence of sales of such structures, and they do not lend themselves to commercial operations, a cost approach is the only viable option to assess fair value of the lighthouse.
- The estimated labour and material cost of reconstructing the lighthouse is determined, including sourcing stone that is as similar as possible to the original stone (within the specific provisions of the heritage listing) with similar internal design and features. The cost estimation demands that the valuer exercise significant professional judgement, as it is not based on modern-day materials. Due to the restrictions imposed by the heritage listing regarding maintenance and preservation requirements, the valuer also estimates the cost burden of the heritage listing, and the magnitude of the downwards adjustment that a potential alternative

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entity would apply. The remaining economic life of the lighthouse is also subject to significant judgement by the valuer, based on environmental conditions in the rugged location, past responsive maintenance, and the cumulative physical impact of tourists. The remaining life is reflected in restated accumulated depreciation. The methodology used reflects the valuer's expectations about how an alternative entity (e.g. the local government for that area) would determine the maximum amount it would be prepared to pay if it was to acquire the lighthouse.

- The resulting valuation is categorised into level 3 of the fair value hierarchy.

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