

Interpretation Statement IS 11/01

INCOME TAX - DEPRECIATION: MEANING OF "OBsolescence" IN THE DEFINITION OF "ESTIMATED USEFUL LIFE"

All legislative references are to the Income Tax Act 2007, unless otherwise stated.

Summary

1. This Interpretation Statement sets out the Commissioner's view on the meaning of the term "obsolescence" in s EE 63. This statement also sets out practical examples of the kinds of considerations that the Commissioner will take into account when setting the estimated useful life of an item of depreciable property based on obsolescence.
2. Section EE 63 defines the term "estimated useful life". The estimated useful life of an item of depreciable property ("an item") is used to set the depreciation rate for that item. The longer the estimated useful life of an item, the lower the depreciation rate for that item will be. The shorter the estimated useful life of an item, the higher the depreciation rate will be. There is, therefore, a timing advantage in having a shorter, rather than longer, estimated useful life. A person is allowed a deduction for an amount of depreciation loss for items of depreciable property that they own using an appropriate depreciation rate. Section EE 63 provides that certain factors must be taken into account when determining the estimated useful life of an item. One of the factors in s EE 63, which is relevant to setting general, special and provisional depreciation rates, is "obsolescence".
3. The word "obsolescence" may have different meanings in different contexts. In the context of s EE 63, obsolescence involves a reduction in the period for which an asset might be expected to be useful in deriving assessable income for reasons (other than physical deterioration or wear and tear) such as economic, technological or other external causes that affect the estimated useful life of the item. The estimated useful life of an item is relevant when the Commissioner sets a general depreciation rate, or considers applications for special or provisional depreciation rates. Obsolescence will cause an item to no longer be useful in deriving assessable income before the end of its physical life. However, an obsolete item will not necessarily be completely useless.
4. Whether an item is affected by obsolescence is a question of fact to be judged objectively. An item will be obsolete if causes external to that item, and outside the control of the taxpayer, will result in it being no longer useful in deriving assessable income before the end of its physical life. For obsolescence to affect the estimated useful life of an item, there must be a reasonable certainty that it will become obsolete and a sufficiently clear indication of when this would be likely to occur. The nature of obsolescence can be described in the following terms:
 - Obsolescence is the process whereby an asset loses its economic usefulness or ability to function in a business through causes other than physical deterioration or wear and tear.

- Obsolescence may arise from factors that are inherent to the item (functional obsolescence) or that constitute a change to the environment or conditions surrounding an item (economic obsolescence).
 - Obsolescence may arise from such circumstances as changes in the way in which the business is undertaken, shifting of business centres, loss of trade, technological changes, new inventions, inadequacy, and prohibitory laws where those factors result in a decrease in the estimated useful life of the item by making that item become obsolete.
 - Obsolescence may arise from technological changes or the development of more modern improved alternatives that are significant enough to affect the useful life of an item and mean that the item has been superseded by improvements. However, obsolescence does not equate to an item simply being suboptimal or there being “better” or more modern alternatives. The difference is that the more modern improved alternatives must be significant enough to affect the estimated useful life of the item.
5. Obsolescence is not contributed to by the following:
- The mere presence of a business failure or market forces of supply and demand that do not impact on the item. For instance, a desire to cease, enhance, or expand business operations will not contribute to obsolescence.
 - The mere fact that an item is abandoned, demolished or scrapped or that there is a decision to do so. The presence and impact of obsolescence must be determined having regard to the status of the item before its abandonment, demolition or scrapping.
 - The availability of newer or better alternatives, which do not affect the estimated useful life of the item.
6. An item can become obsolete in many different ways. Therefore, this statement does not provide an exhaustive list. As stated above, whether an asset is becoming obsolete is a question of fact to be determined objectively. In considering whether an item is affected by obsolescence, in each particular case, the focus is on establishing whether there is a set of considerations that will affect the usefulness of an item or, in other words, the item’s estimated useful life.
7. Where obsolescence is present, the item will eventually become unsuitable for the purposes of the business, such that the item will no longer contribute to the income-earning process. This requires a reasonable certainty that an item will become obsolete, and a sufficiently clear indication of when this would be likely to occur, for obsolescence to affect the estimated useful life of the item.

Analysis

8. This analysis explains the meaning of the word “obsolescence” in s EE 63. The Commissioner must take any obsolescence into account when setting the

estimated useful life of an item. This Interpretation Statement analyses the wording and statutory context of s EE 63 and relevant case law.

9. The following analysis considers the statutory context of s EE 63 together with the ordinary and commercial meaning of the word “obsolescence” and analyses the case law on the term “obsolescence”. This statement then explains what the Commissioner will take into account when determining whether obsolescence is affecting an item’s estimated useful life.

Statutory context for the term “obsolescence” in s EE 63

10. Section DA 1(1) provides that a person is allowed a deduction for an amount of expenditure or loss. However this is only to the extent to which the expenditure or loss is incurred by the person in deriving their assessable or excluded income or both, or in the course of carrying on a business for the purpose of deriving assessable or excluded income or both.
11. Generally, a person is not allowed a deduction for a capital item: s DA 2(1). However, s DA 4 overrides s DA 2(1) by expressly providing that a person is allowed a deduction for an amount of depreciation loss.
12. Section EE 1 provides that subpart EE quantifies the amount of depreciation loss a person is allowed as a deduction under Part D of the Act. Depreciation loss refers to the amount of depreciation allowable in an income year under s EE 1(2). Section EE 1 also quantifies the amount of depreciation recovery income that is income under Part C. Depreciation recovery income arises when a person disposes of an item of depreciable property.
13. In setting a depreciation rate for an item the Commissioner must determine the “estimated useful life” of an item based on the definition of that term in s EE 63. Section EE 63(1) provides the following definition of the term “estimated useful life”:

EE 63 Meaning of estimated useful life

Meaning for item of depreciable property, except for copyright in sound recording

- (1) Estimated useful life, for an item of depreciable property, other than a copyright in a sound recording, means the period over which the item might reasonably be expected to be useful in deriving assessable income or carrying on a business for the purpose of deriving assessable income, taking into account—
 - (a) the passage of time, likely wear and tear, exhaustion, and obsolescence; and
 - (b) an assumption of normal and reasonable maintenance.
14. The purpose of s EE 63 is to determine the estimated useful life of an item, taking into account the passage of time, likely wear and tear, exhaustion, and obsolescence. The estimated useful life of an item is relevant when the Commissioner sets a general depreciation rate, or considers applications for special or provisional depreciation rates. A person may apply for a special depreciation rate when the general economic rate for that item is not appropriate. Depending on a taxpayer’s particular circumstances, alternatives to applying for a special rate include writing off the item (s EE 39) or disposing

of the item and claiming a depreciation loss for the amount by which the consideration is less than the item's adjusted tax value (s EE 48(2)).

15. In setting the estimated useful life of an item, the Commissioner must make a reasonable estimate of the period for which an item might be expected to be useful in deriving assessable income. This estimate is based on information available to the Commissioner at the time the rate is set. The longer the estimated useful life of an item, the lower the depreciation rate for that item will be. The shorter the estimated useful life of an item, the higher the depreciation rate will be. There is, therefore, a timing advantage in having a shorter, rather than longer, estimated useful life.
16. "Obsolescence" is not defined in the Act. Therefore, it is necessary to interpret the meaning of the term "obsolescence" as it is used in s EE 63. The following analysis considers the ordinary and commercial meaning of the term "obsolescence" and relevant case law.

Ordinary meaning of the term "obsolescence"

17. The *Shorter Oxford Dictionary* (6th ed, Oxford University Press, Oxford, 2007) defines "obsolescence" as:

1 The process or state of becoming obsolete or falling into disuse. ... ▶ **b** A diminution in the value or usefulness of consumer goods, machinery, etc., owing to technological advances, changes in demand, etc.

18. In addition, "obsolete" is defined as:

A adjective. **1** No longer practised or used; going out of use, out of production, or out of date.

B noun. A thing which is out of date or has fallen into disuse;

19. *Black's Law Dictionary* (8th ed, Thomson West, St Paul, Minnesota, 2004) defines "obsolescence" as:

Obsolescence, 1. The process or state of falling into disuse or becoming obsolete. **2.** A diminution in the value or usefulness of property, esp. as a result of technological advances. For tax purposes, obsolescence is usu. distinguished from physical deterioration. Cf. DEPRECIATION. [Cases: Taxation 348(4).]

economic obsolescence. Obsolescence that results from external economic factors, such as decreased demand or changed government regulations. – Also termed external obsolescence. Cf. functional obsolescence.

external obsolescence. See economic obsolescence

functional obsolescence. Obsolescence that results either from inherent deficiencies in the property, such as inadequate equipment or design, or from improvements in the property since its use began. Cf. economic obsolescence.

planned obsolescence. A system or policy of deliberately producing consumer goods that will wear out or become outdated after limited use, thus inducing consumers to buy new items more frequently. – Also termed built-in obsolescence.

20. The dictionary meaning of these words indicates that obsolescence involves a reduction in the usefulness (and so the value) of an item for reasons other than physical deterioration or wear and tear. Examples of obsolescence are losses of value or usefulness of an item as a result of inherent deficiencies in that item,

rapid technological advances, changes in the demand for products, or changes in government regulation. Obsolescence is also described as a process that suggests items affected by obsolescence will continue to have some utility until they become obsolete. The result is that the item will become obsolete, or fall into disuse, before the end of its physical life.

Commercial meaning of the term "obsolescence"

21. The notion of obsolescence is also frequently referred to in commercial contexts. Again, obsolescence is distinguished from physical deterioration or wear and tear. Often, although not always, the cause of the item becoming obsolete will be external to that item of property – such as economic changes, technological advances, and changes in demand that affect the estimated useful life of an item.

22. The *Penguin Dictionary of Economics* (7th ed, Penguin Books, London, 2003) defines obsolescence as (at p 281):

A reduction in the useful life of a capital good or consumer durable through economic or technological change or any other external (durable goods) changes, as distinct from physical deterioration in use (depreciation). For example, a new process or machine may be developed that renders existing equipment uneconomic because a firm could significantly reduce its costs by scrapping its existing machinery even though it might still have many years of physical life. Then the old equipment has become obsolescent.

23. The *CCH Macquarie Dictionary of Accounting* (Business ed, CCH Australia, Sydney, 1991) defines obsolescence as:

Obsolescence – the state of having gone out of use, become out of date, especially as caused by new alternatives being available. An asset (e.g. machinery) may become obsolete when a more cost-effective alternative appears on the market. Obsolescence is one of the factors which determines the useful life of a non-current asset. It can be hard to predict, as it is closely related to the technological advances and changes in demand.

24. The *Dictionary of Accounting and Finance Terms* (4th ed, Addison Wesley Longman, Auckland, 1996) defines obsolescence as:

The outdated of a product or process caused by improved alternatives becoming available that will be more cost-effective resulting in a decline in the market value of an asset. The decline in market value is unrelated to physical changes in the asset itself. Obsolescence is one of the factors which determines the economic life of a fixed asset, which in turn is one of the elements determining the basis of depreciation charged against the fixed asset.

25. These definitions show that obsolescence is a reduction in usefulness due to causes other than physical deterioration or wear and tear, such as economic, technological, or other external causes that affect the estimated useful life of the item.

26. The commercial commentaries appear to have extended the meaning of "obsolescence" to situations where an item may lessen in usefulness simply because more efficient alternatives are developed. The Commissioner considers that this expanded commercial definition of obsolescence is not directly applicable to the meaning of "obsolescence" in s EE 63. This is because, in the context of s EE 63, in order for obsolescence to be taken into account, the availability of newer and better alternatives must be significant enough to

reduce the estimated useful life of the item. The relevant case law shows that the availability of newer or better alternatives will cause an item to become obsolete only if the item has been “superseded by improvements”. In the situation described by the *Penguin Dictionary of Economics* (where an item is scrapped because it is uneconomic) to establish obsolescence for income tax purposes it would be necessary to show that the scrapping of the item is or will be necessary because, for example, new parts are no longer available.

Case law

New Zealand case law on obsolescence

27. The term “obsolescence” in s EE 63 has not been judicially discussed in any New Zealand cases. However, in *Para Handkerchief & Textiles (1964) Ltd v CIR* (1992) 14 NZTC 9,125 the High Court considered the meaning of the phrase “by the fact of the asset becoming obsolete or useless” as it appeared in s 108(1)(b) of the Income Tax Act 1976. Section 108 of the Income Tax Act 1976 was the predecessor to the current depreciation rules and where applicable, gave the Commissioner the power to allow such deduction as the Commissioner thought just. The High Court determined that the assets owned by the company suffered a reduction in value, not because they had become “obsolete or useless” but because the company could not operate profitably and the assets had to be sold for the best price that could be achieved. The decreased price received was caused, not by the state of the assets, but because of supply and demand.

28. The High Court judgment in *Para Handkerchief* is relevant to determining the meaning of the term “obsolescence” as this case considered the process of an item becoming obsolete. Jaine J stated (at p 9,128):

The wording of sec 108 is not such that it is necessary to establish that depreciation caused the asset to become “useless” but rather the converse, namely, that an asset has depreciated “by the fact of the asset becoming ... useless”.

29. Obsolescence can contribute to a reduction in the economic usefulness of property through causes other than physical deterioration. Unlike depreciation as a result of “fair wear and tear”, the High Court in *Para Handkerchief* stated that obsolescence is not always as a result of a gradual process (at p 9,128):

This Court could readily accept that depreciation caused by “fair wear and tear” denotes a gradual process. Similarly depreciation could occur “by the fact of the asset becoming obsolete or useless” where that state has been reached gradually - but that is not necessarily so in relation to obsolescence or uselessness. It is possible to conceive of situations where that state has been caused by rapid technological changes or a particular event or series of events which may occur in a short space of time.

30. In *Para Handkerchief* the relevant items had been disposed of before the taxpayer’s claim for obsolescence. Disposal or termination of use is not a requirement in the New Zealand statutory context for the Commissioner to determine whether obsolescence is relevant. Where an item is disposed of or its use is terminated, however, the Commissioner considers that the presence or absence of obsolescence is to be determined before the item is disposed of or its use terminated.

Objective test for obsolescence

31. In *Para Handkerchief* the taxpayer pointed to the United Kingdom High Court of Justice (King's Bench Division) decision in *South Metropolitan Gas Company v Dadd* (1927) 13 TC 205 and submitted that the test for obsolescence should be a subjective test. Jaine J rejected a subjective test for determining if obsolescence was relevant, stating (at p 9,130):

But it does not follow from the dictum of Rowlatt J that he was saying that "obsolete" means "obsolete in the hands of or in the opinion of the taxpayer" ie the subjective test urged on this Court by the objector – otherwise *South Metropolitan Gas Company v Dadd* would have been decided differently.

Indeed that was recognised by Rowlatt J when he concluded his judgment in this way:

"It is impossible for me to say on the facts here that this ship was, as a matter of fact, obsolete, because, unless I were to say that whenever a man says a thing is obsolete, it is obsolete, I could not decide that, and it is impossible to say that. There is always the possibility ... that the Company here merely wanted something rather better, not because the old thing had been superseded by improvements, but they wanted rather a better ship, because it would suit their purposes better and I think under those circumstances, it is open to the Commissioners to say the plant has not become obsolete...."

Whether an asset has become "obsolete" or "useless" is a question of fact but it cannot be said that if a taxpayer claims an asset is "obsolete" or "useless" because it either chooses not to use it or cannot use it by reason of business failure then the Commissioner is bound to accept that it is "obsolete" or "useless" within sec 108(1)(b).

32. The objective test for obsolescence means that items a taxpayer considers to be obsolete or less useful to them may not necessarily be affected by obsolescence.

Presence of obsolescence is a question of fact

33. In *Para Handkerchief* Jaine J considered *South Metropolitan Gas Company* and the Supreme Court of South Australia decision in *Robertson v Commissioner of Taxes* [1928] SASR 313. Jaine J noted that the statutory regimes considered by those cases were different to that contained in s 108 of the Income Tax Act 1976. This was because the sections considered by those cases related to a situation in which a taxpayer had replaced the item said to have become obsolete and the deduction was allowed only to the extent of the cost of the replaced item after deduction of earlier allowances for fair wear and tear and any sum realised from the sale of that item. This was intended to encourage the purchase of new items. Further, the Australian provision considered in *Robertson* also required the useless state to have resulted from wear and tear, which is not a requirement for obsolescence because wear and tear is provided for separately in s EE 63(1)(a). As stated by Jaine J in *Para Handkerchief*, obsolescence does not require the obsolete state to be reached gradually (like wear and tear). Therefore, the United Kingdom and Australian case law on obsolescence or uselessness must be interpreted with these comments in mind.
34. The decision in *South Metropolitan Gas Company* concerned a taxpayer who owned and operated steamships carrying coal. The taxpayer replaced an old steamship with a superior vessel. Rowlatt J upheld the Special Commissioner's decision that obsolescence was not relevant.

35. Rowlatt J refused to interfere with the decision of the Special Commissioners that obsolescence was not relevant in this case because obsolescence was a question of degree and so a question of fact (at p 210). Rowlatt J did, however, set out a few general comments on obsolescence, stating that (at p 210):

There is always the possibility—and this is what I think the Commissioners may have thought; so far as I can see, they did think—that the Company here merely wanted something rather better, not because the old thing had been superseded by improvements, but they wanted rather a better ship, because it would suit their purposes better. The old ship and the new ship are both contemporary types of ships as far as that goes, but they wanted rather a better one because they thought it would be more useful for the way they were going to carry on their business, and that is all: and I think under those circumstances, it is open to the Commissioners to say the plant has not become obsolete.

36. By stating that both of the ships were contemporary types of ships, Rowlatt J left open the possibility that technological changes may cause obsolescence and may, objectively, contribute to a decrease in the estimated useful life of the item. In this case, however, the fact that there were more superior vessels (such that replacement made business sense) did not prove that the old ship had been “superseded by improvements”. Rowlatt J therefore found that the old ship had not become obsolete.

Obsolescence must affect the state or nature of the item by decreasing that item's estimated useful life, but obsolescence is not wear and tear

37. The Commissioner considers that a relevant consideration in deciding whether an item is affected by obsolescence is whether the item will remain adequate for the purpose or function for which it was acquired. If the cause of the claimed obsolescence will result in the item being no longer suitable for the purpose or function for which that item was acquired then it is more likely that the item will be affected by obsolescence. In *South Metropolitan Gas Company* the purpose or function of the taxpayer's steamship remained unchanged from when that steamship was purchased. Therefore, obsolescence was not relevant. Each case must be considered on its own facts to determine whether there has been a decrease in the estimated useful life of an item or whether the decrease is caused by other considerations, such as the taxpayer's desire to increase business.

38. In *Para Handkerchief*, Jaine J stated that the loss in value, caused by an asset becoming obsolete or useless, must be related to the state or nature of the assets (at p 9,129):

Section 108 was hardly designed to allow an almost complete write-off of near new assets in the first year (when the Commissioner has already allowed standard depreciation for that year) when there can be no suggestion that their income producing capabilities had been affected except by the business failure of the owner brought about by factors unrelated to the state or nature of the assets.

39. Therefore, obsolescence must be related to the state or nature of an item by causing a decrease in the estimated useful life of the item. However, that does not require that the item is obsolete or useless to everyone. In both *Para Handkerchief* and *South Metropolitan Gas Company* the items did not suffer from a decrease in their estimated useful life. In *Para Handkerchief* the

decrease in value was caused by business failure, and in *South Metropolitan Gas Company* the taxpayer merely wished to replace a steamship with a superior vessel and was therefore not obsolete.

40. In *Robertson* the taxpayer claimed deductions for various items of plant purchased to replace items the taxpayer had sold or scrapped or that had become worn out. Murray CJ stated that wear and tear was not the same as obsolescence (at p 318):

Advancing age or obsolescence of the thing it [sic] not "wear and tear" ...; and *Earl of Derby v. Aylmer*, [1915] K.B. 374; *London County Council v. Edwards*, (1909) 100 L.T. 444, at p. 446).

41. This conclusion would be the same under s EE 63. This is because the term "wear and tear" and the term "obsolescence" are listed separately as factors that may be used in determining an item's estimated useful life under s EE 63(1)(a). In *Para Handkerchief* Jaine J discussed *Robertson*, stating (at p 9,131):

The judgments in *Robertson*, and in particular the conclusion that useless means unfit through wear and tear and that the item is *either* incapable of repair *or* in a condition that would lead a reasonable businessman to replace, need to be considered in the context of the particular statutory provisions with which they were dealing.

The indication by *Napier J* that "useless" means "useless for the purposes of the trade or business" cannot be said to mean simply "useless for the purposes of the trade or business of the taxpayer" without further qualification. The provision he was interpreting did not require (as s 108 does) the taxpayer to satisfy the Commissioner that the state of uselessness could not be made good by repair. In that context he appears merely to be saying that if it is commercially expedient to cease using an asset which has suffered from wear and tear for the purposes of the taxpayer's business *and* the taxpayer incurs expense in substituting a new asset, a deduction may be allowed in respect of some part of the cost of the new equipment.

The position was expressed by *Murray CJ* at p 319 in the following way:

"... an implement is 'useless' from wear and tear, within the meaning of the provision, when it has become unfit for the purpose for which it was used and is either incapable of being repaired or is in such a condition that a reasonable businessman would prefer to substitute a new implement rather than incur the cost of repairing the old one."

In the present case there is of course no question of commercial expediency leading to replacement of equipment which had suffered wear and tear but neither could it possibly be said on the facts in the present case that the assets were useless for the purposes of the trade or business carried on by the company. They remained commercially useful as evidenced by the fact that they were used by the purchaser in the operation of the business until fire brought about its conclusion.

42. Obsolescence under s EE 63 does not require that the item cannot be made good by repair. However, s EE 63(1)(b) does provide that in setting an estimated useful life for an item there is an assumption of normal and reasonable maintenance. Unlike the United Kingdom and Australian decisions set out above, however, s EE 63 is not necessarily intended to promote the purchase of new items as s EE 63 does not require that the item be replaced.

United States case law examples of obsolescence

43. There are some United States decisions that consider the meaning of obsolescence in a depreciation context. However, in the United States cases, the taxpayer is generally claiming a deduction for obsolescence at the end of the item's life. This is in contrast to the New Zealand legislation, in which the estimated useful life of an item (taking into account obsolescence) is used to determine an appropriate depreciation rate to be used throughout the life of the item.

44. In *Anaconda Company v Property Tax Department of the State of New Mexico* 94 NM 202; 608 P 2d 514 (1979), the Court of Appeals in New Mexico discussed the meaning of the term "obsolescence", stating (at p 207; 519):

"**Obsolescence**" is generally understood to be the process "whereby property, because of causes other than physical deterioration, loses its economic usefulness to the taxpayer" 4 Mertens, Law of Federal Income Taxation s 23.104 (1973). A broader definition was given by the Massachusetts Supreme Court, which stated that **obsolescence** "mean(s) a loss in the service value of a fixed or capital asset which has become useless or inefficient on account of advances in the art, new inventions, inadequacy, the shifting of business centres, the loss of trade or some governmental ruling" *Attorney DJ General v Trustees of Boston Elevated Railway*, 319 Mass. 642, 659, 67 N.E. 2d 676, 688 (1946). Interpreting a federal statute allowing a deduction from **income tax** for **obsolescence**, the United States Court of Claims stated that in order to obtain the deduction the taxpayer must show that the property is being affected by economic conditions that will result in its being abandoned prior to the end of its normal useful life. *S.S. White Dental Manufacturing Company v. United States* 38 F. Supp. 301, 93 Ct. CL.469 cert. denied, 314 U.S. 644, 62 S.Ct. 84, 86 L.Ed. 517 (1941). (Emphasis added.) Yet not every decision to abandon property gives rise to a claim for **obsolescence**. *Real Estate-Land Title & Trust Co. v United States*, 309 U.S. 13, 60 S.Ct. 371, 84 L.Ed. 542 (1940). [Emphasis in original]

45. As stated in *Anaconda Company* the item must be affected by economic conditions (for example, advances in the art, new inventions, and inadequacy) that will result in the need to abandon the item before the end of its physical life. Obsolescence may exist where an item becomes outmoded by virtue of more modern improved alternatives that make the item uneconomic or uncompetitive, such that it will eventually be replaced.

46. However, obsolescence does not equate to there simply being "better" or more modern alternatives available. Any technological advances or improvements must be significant enough to affect the item's estimated useful life. The item must eventually be "superseded by improvements": *South Metropolitan Gas Company*. This requires a reasonable certainty that the item will become obsolete and a sufficiently clear indication of when this would be likely to occur.

47. Some cases make specific reference to two main forms of obsolescence, being "functional" and "economic" obsolescence. An example is set out in the New York Supreme Court, Appellate Division decision in *Piazza v Town Assessor of Town of Porte* 16 AD 2d 863; 228 NYS 2d 397 (1962) (at p 863; 397):

"Functional obsolescence" with respect to valuation of property for taxation is a loss of value brought about by the failure or inability to deliver full service, and includes any loss of value by reason of shortcomings or undesirable features contained within the property itself and is a loss of utility and failure to function due to inadequacies of design and deficiency in the property.

“Economic obsolescence” with respect to valuation of property for taxation is a loss of value brought about by conditions that environ [surround, enclose] a structure such as a declining location or downgrading of a neighbourhood resulting in reduced business volume.

48. Functional obsolescence primarily considers factors inherent to items that have an effect on the estimated useful life of that item. Such factors include (but are not limited to) technological changes affecting the ability to use an item. An example of a factor inherent to an item that decreases its estimated useful life is new mobile phone technology where there is no longer a provider of the old technology. Any mobile phone using that technology would be rendered obsolete due to the inability to access service.
49. Economic obsolescence primarily considers factors that cause changes to the environment and conditions surrounding an item that have an effect on the estimated useful life of that item. Such factors include (but are not limited to) regulatory or economic changes. For example, government regulation or public taste could change consumer demand for a product produced by an item. As stated above, however, the cause of the obsolescence must objectively contribute to a decrease in the estimated useful life of an item. Economic factors could impact equally on either the supply or demand side of a business. Economic factors (such as supply and demand changes) need careful consideration as a clear link to a decrease in the estimated useful life of an item must be established. This is because, as stated by Jaine J in *Para Handkerchief*, obsolescence is not relevant where the cause of a decrease in value is unrelated to the state or nature of the actual items.
50. The Commissioner considers that an example of economic obsolescence is the depletion of available raw materials that an item relies on to produce income. This is because a lack of raw materials for a machine contributes to the reduced usefulness of that item. In *Anaconda Company* the taxpayer, relying on a valuation report, argued that its uranium supply would be depleted in eight years. However, the claim that the uranium supply would be depleted within eight years was disproved because contrary evidence was called that indicated there was another 11.2 million tonnes of uranium in the area (this information came from a merger report between the taxpayer and another company) and the price of uranium ore was rising. The taxpayer also argued that one of its uranium ore mills was less productive than other independent mills. The taxpayer produced evidence showing that its mill had an 89.2% recovery rate whereas other mills had a 90.9% recovery rate. This evidence was not considered sufficient to overturn the trial court’s factual findings that obsolescence was not present in this case.
51. In *Piazza* the New York Supreme Court referred to an argument, by the taxpayer, that economic obsolescence was present because the taxpayer’s hospital was in a rural area where an industrial plant had closed, resulting in low business volume. The taxpayer argued that the hospital could not be operated at a profit. The court stated that the taxpayer had failed to produce evidence in support of this argument. However, the High Court decision in *Para Handkerchief* shows that business failure that does not affect the items, is not sufficient for obsolescence to be relevant. This is because the cause of the

obsolescence must be objectively shown to affect the estimated useful life of an item.

52. The United States Supreme Court considered the meaning of the term “obsolescence” in *Real Estate-Land Title & Trust Co v United States* 309 US 13 (1940), stating (at p 16):

This Court, without undertaking a comprehensive definition, has held that obsolescence for purposes of the revenue acts ‘may arise from changes in the art, shifting of business centers, loss of trade, inadequacy, supersession, prohibitory laws, and other things which, apart from physical deterioration, operate to cause elements or the plant as a whole to suffer diminution in value’ ... Such specific examples illustrate the type of “economic conditions” whose effect on physical property is recognized as obsolescence by the Treasury Regulations. Others could be mentioned which similarly cause or contribute to the relentless march of physical property to the junk pile. But in general, obsolescence under the Act connotes functional depreciation, as it does in accounting and engineering terminology. More than use or disuse is necessary to establish it. To be sure, reasons of economy may cause a management to discard a title plant [Facilities — records, equipment, fixtures, and personnel — required to function as a title insurance operation] either where it has become outmoded by improved devices or where it is acquired as a duplicate and therefore is useless. **But not every decision of management to abandon facilities or to discontinue their use gives rise to a claim for obsolescence. For obsolescence under the Act requires that the operative cause of the present or growing uselessness arise from external forces which make it desirable or imperative that the property be replaced.** What those operative causes may be will be dependent on a wide variety of factual situations. “New and modern methods” appear to have been one of the real causes of abandonment of the title plant in *Crooks v. Kansas City Title & Trust Co.* ... Suffice it hereto say that no such external causes are present, for the record shows little more than the desire of a management to eliminate one plant which was a needless duplication of another but which functionally was adequate. The fact that fewer employees were required to operate the one retained than the one discarded is inconclusive here. For this is not the case of acquisition of a new plant to take the place of one outmoded or less efficient. Rather the conclusion is irresistible that the plant was discarded only as a proximate result of petitioner’s voluntary action in acquiring excess capacity. [Emphasis added]

53. The term “external forces” was used in *Real Estate-Land Title & Trust Co* to refer to the fact that the causes of the obsolescence must be outside the control of the taxpayer (external forces could result in functional obsolescence or economic obsolescence). This means obsolescence does not hinge on the decisions of management that a particular item be abandoned or its use terminated. Therefore, the presence of obsolescence is judged objectively before disposing of the item. The decision in *Real Estate-Land Title & Trust Co* further shows that the external forces cannot merely be the expansion of the business or the desire to expand the business. This is because the expansion of the business or the desire to expand the business, by itself, does not affect the estimated useful life of an item.
54. In the United States Court of Federal Claims decision in *SS White Dental Manufacturing Company v United States* 38 F Supp 301 (1941) the taxpayer consolidated its operations to one of its three manufacturing plants for cost-saving reasons. One of the plants was effectively abandoned, and the taxpayer claimed an allowance for “extraordinary obsolescence”. The Court of Claims noted (at p 304):

The facts clearly indicate that the underlying reason for the abandonment and disposition of the Northwood plant was to save the extra operating costs of maintaining the two plants. The ultimate purpose, as disclosed by the minutes of the directors' meeting and by testimony, was to abandon the third plant also and to consolidate the entire operation at the headquarters plant at Staten Island.

The Northwood plant was adequate. It was located in a desirable industrial centre. It was easily accessible for all purposes. It was in good condition and satisfactory in operation. The primary reason for the decision to consolidate the two plants at Staten Island was that the current expenses of operation could be reduced thereby.

And later (at p 306):

There is no evidence that any of the buildings were in other than first-class condition. On the contrary, the appraiser's report shows them in good condition.

We find that the evidence fails to show that the physical plant in Northwood on April 1, 1936, was on the way to becoming obsolete. Under the facts as disclosed by the evidence the plaintiff is not entitled to recover on the grounds of obsolescence.

55. An important point in the above extract from *White Dental* is that making a business more efficient by abandoning an item does not necessarily mean the item is affected by obsolescence. Similarly, an item is not necessarily obsolete simply because the item is of no further use to a particular taxpayer in deriving their assessable income. This is because the decrease in utility must relate to the item itself by objectively causing a decrease in the estimated useful life of that item. In this case the estimated useful life of the plant was unchanged and the taxpayer merely wished to consolidate its operations to save costs. Although *White Dental* involved consolidating business premises, the Commissioner also considers that the growth of a business, which reduces the utility of an item, does not, in itself, establish that an item is becoming obsolete.

What the Commissioner takes into account when considering whether an item is affected by obsolescence

56. In the context of s EE 63, obsolescence involves a reduction in the period for which an asset might be expected to be useful in deriving assessable income for reasons (other than physical deterioration or wear and tear) such as economic, technological or other external causes that affect the estimated useful life of the item. The tests for obsolescence are the same regardless of whether the Commissioner is setting a general, special or provisional depreciation rate. However, there may be differences in the types of information available to the Commissioner to determine whether an item is affected by obsolescence. For example, when the Commissioner is considering an application for a special depreciation rate, the Commissioner would have information about the particular circumstances relating to the taxpayer's item. Whereas, in setting a general rate, the Commissioner takes into account information generic to the class of item.
57. The cases discussed above show that determining whether an item is affected by obsolescence is a question of fact to be judged objectively. The cause of any obsolescence will be outside the control of the taxpayer and may arise from factors that are inherent to the item (functional obsolescence) or that constitute

a change to the environment or conditions surrounding an item (economic obsolescence).

58. There are many different causes of obsolescence and this statement does not provide an exhaustive list. However, the Commissioner considers that the following are examples of external causes that may result in an item becoming obsolete:

- prohibitory laws or regulatory changes that affect the useful life of the item in deriving assessable income;
- technological changes or the development of more modern improved alternatives that are significant enough to affect the useful life of the item and mean that the item has been superseded by improvements;
- changes in consumer tastes and public opinion, in relation to products produced by the item, such that the item will no longer be useful in deriving assessable income;
- changes in the art or, in other words, changes in the way in which a business or a type of business is undertaken, such that the item's estimated useful life is decreased;
- depletion of raw materials on which the item is reliant to produce income;
- the item causes reduced ability or failure to continue business at previous levels such that the item will no longer be useful in deriving assessable income.

59. An item may become obsolete when it is superseded by improvements. However, obsolescence does not equate to an item simply being suboptimal or there being "better" or more modern alternatives. The difference is that the more modern improved alternatives must be significant enough to affect the estimated useful life of the item. Examples of situations where the items remained suitable for their original use or purpose are the assets in *Para Handkerchief*, the steamship in *South Metropolitan Gas Company* and the surplus Northwood industrial plant in *White Dental*.

60. As discussed above, obsolescence is the process of becoming obsolete. However, it may not always be a gradual process. When the Commissioner sets the estimated useful life for an item of depreciable property any reasonably predictable obsolescence will be taken into account at that time. For obsolescence to be taken into account, the estimated useful life of the item must have decreased. As the obsolescence of an item is a question of fact, other considerations similar to those set out above may also be relevant.

61. The Commissioner considers, however, that the following considerations, by themselves, will not establish whether a decrease in the estimated useful life of an item is as a result of obsolescence:

- demolition, scrapping or abandonment of the item, or a decision to do so;
- a decision of management to discontinue the use of an item;

- the availability of newer or better alternatives;
- market forces of supply and demand;
- a desire to enhance or expand business operations;
- the likelihood of business failure.

Examples

62. The following examples illustrate the principles outlined in this Interpretation Statement. They are therefore only a guide. Whether obsolescence may be taken into account in determining the estimated useful life of an item of depreciable property will depend on the facts of each case.
63. The first five examples consider situations in which an event has occurred (other than physical wear and tear) that may have changed the estimated useful life of the item. The examples then consider whether that event has reduced the original estimated useful life of the depreciable property. The sixth example shows how the Commissioner will take obsolescence into account when setting a general rate.

Example 1

64. The Government contracts A Ltd to provide security at New Zealand's international airports. To provide this service, A Ltd has purchased equipment to scan passengers and their baggage.
65. As a result of world events, the governments around the world have updated their security regulations to require more rigorous screening of passengers and baggage at international airports. As a result of these new security regulations, the New Zealand Government passes legislation to comply with the new international standards. To comply with the legislation, A Ltd must replace all of its existing equipment with new equipment within the next two years. The equipment is incapable of being used for any other purpose.
66. The result of the new legislation is that the equipment will become obsolete at the end of the two-year period and must be replaced. Therefore the current depreciation rate for A Ltd's depreciable property may no longer be appropriate and A Ltd may wish to apply to the Commissioner for a depreciation determination setting new depreciation rates for its equipment.

Example 2

67. B Ltd owns and operates a business producing aluminium. The manufacture of aluminium requires specialist machinery that depends on aluminium ore. New research suggests the amount of aluminium ore available in the country is decreasing faster than was previously estimated. It is not feasible to import aluminium ore. B Ltd's specialist machinery is also not capable of running on any input other than aluminium ore.
68. Once the supplies of aluminium ore have run out, B Ltd's machine will become obsolete. Because the supply of aluminium ore is now decreasing faster than it

was initially estimated, the estimated useful life of the plant has decreased and the applicable rates of depreciation (if any) on B Ltd's plant may no longer be appropriate. Therefore, obsolescence will be relevant when setting any applicable depreciation rate for B Ltd's plant.

Example 3

69. C Ltd owns and operates an eye clinic specialising in refractive surgery for correcting myopia, hyperopia, and astigmatism. New technological developments result in a new type of refractive surgery, which requires new machinery. The existing machinery remains adequate for the job for which it was acquired, but C Ltd has had a dramatic decrease in the number of customers because the public now demand surgery using the new machinery. This increase in demand is the result of media coverage highlighting the improvements in the new type of refractive surgery.
70. The Commissioner considers that this is an example of consumer preferences causing C Ltd's machine to become obsolete. This means the applicable rates of depreciation on C Ltd's machinery may no longer be appropriate. Therefore, C Ltd may wish to apply to the Commissioner for a depreciation determination setting new depreciation rates for its machinery.

Example 4

71. D Ltd owns and operates a small winery business. D Ltd's wine is very popular, so the owners wish to expand the business. D Ltd gains consent to undertake a total redevelopment and expansion of the winery, complete with much larger wine vats, so production can be increased.
72. D Ltd argues that the current winery is now obsolete because the market for wine has changed and it can no longer produce enough wine to keep up with customer orders. D Ltd also argues that if it did not expand, its customers might lose interest in its product. For this reason D Ltd considers that the previous depreciable property used by the winery (for example, the smaller wine vats) has been affected by obsolescence.
73. The decision by D Ltd to expand the winery is a result of D Ltd's desire to expand its business or, in other words, because of the increased demand for D Ltd's product. The change in customer preferences and expectations did not have any impact on the estimated useful life of any of D Ltd's depreciable property used before the redevelopment and expansion of the winery (for example, the smaller wine vats). This is because the wine-making equipment used before the redevelopment remains able to undertake the function for which that equipment was designed. Therefore, none of the winery's depreciable property has been affected by a change in circumstances leading to a decrease in the estimated useful life of that depreciable property. Therefore, the current depreciation rates for D Ltd's depreciable property remain appropriate.

Example 5

74. E Ltd owns and operates a business renting buses to the public. Some of E Ltd's buses have diesel engines, and those buses are all five years old with an estimated useful life of another seven years. New research shows that these types of diesel engines in buses, when they are over 10 years old, are extremely harmful to the environment. As a result, the Government decides to pass new environmental emissions laws for buses with this type of engine over 10 years old. These new laws mean E Ltd's buses with diesel engines that are over 10 years old are not allowed to be registered to be driven on the road.
75. The effect of the new law is that the estimated useful life of these diesel engine buses of E Ltd has been decreased from 12 years to 10 years. The Commissioner considers that this is an example of economic obsolescence, such that the applicable rate of depreciation on E Ltd's buses with this type of engine may no longer be appropriate. Therefore, E Ltd may wish to apply to the Commissioner for a depreciation determination setting new depreciation rates for these buses.

Example 6

76. The Commissioner is considering setting a general economic depreciation rate for game consoles with hard drives. Game consoles are basically computers that are specifically designed to be used to play video games. These items are used in a number of different types of businesses such as hotels and short-term hire companies.
77. Game consoles are subject to technological change and are regularly superseded by improvements in later generation models. Often games for later models cannot be played on earlier models. In addition, there is evidence that consumer demand means that earlier generation consoles cannot be hired out. It is accepted that the useful life of the consoles would be significantly shorter than their physical life due to technological change and consumer demand. The Commissioner therefore considers that video game consoles will be affected by obsolescence and their estimate useful life would be reduced accordingly. In setting the final estimated useful life, in addition to obsolescence there may be other factors to take into account such as wear and tear.