

# Making sense of a complex world\*

Valuing deferred tax assets –  
a guide to the exercise of judgment



# Introduction



Many telecom operators have significant deferred tax assets. Determining whether to recognise such assets on the balance sheet and, if so, at what point and at what value can be complex.

This paper describes the issues typically encountered by operators in accounting for deferred tax assets and provides practical guidance on how to make, and support, the difficult judgments that are often required.

We trust that you will find this publication useful and welcome your feedback.

A handwritten signature in white ink that reads "P Barkus". The signature is stylized and cursive.

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## Background

The telecommunications industry is very dynamic, driven by technological developments and changes in the competitive and regulatory environment. Due to the significant capital expenditure involved in building infrastructure, investment recovery periods tend to be longer than in many other industries. In the past, a number of telecom operators have recorded significant start-up trading losses and losses due to impairment charges on licences or goodwill and other assets resulting from business combinations. Depending on local tax legislation, operators can use these losses to offset future taxable income.

Companies are required to assess the accumulated losses and the recoverability of any related deferred tax assets (DTA) each year. The amounts involved are often material. The table below shows the DTAs recognised in the 2008/09 financial statements of a selection of major European telecom operators.

Figure 1: DTAs recognised by major European operators compared with group equity

| Company          | Currency | DTA recognised (net) (millions) | Group equity (millions) | DTA as percentage of group equity |
|------------------|----------|---------------------------------|-------------------------|-----------------------------------|
| Portugal Telecom | EUR      | 1,031                           | 2,000                   | 52%                               |
| KPN              | EUR      | 1,733                           | 3,759                   | 46%                               |
| Telefónica       | EUR      | 6,980                           | 19,562                  | 36%                               |
| France Télécom   | EUR      | 5,142                           | 31,198                  | 16%                               |
| Deutsche Telekom | EUR      | 6,234                           | 43,112                  | 14%                               |
| Belgacom         | EUR      | 312                             | 2,525                   | 12%                               |
| TeliaSonera      | SEK      | 13,206                          | 141,448                 | 9%                                |
| Telekom Austria  | EUR      | 143                             | 2,156                   | 7%                                |
| Telecom Italia   | EUR      | 987                             | 26,856                  | 4%                                |
| Telenor          | NOK      | 2,815                           | 88,568                  | 3%                                |
| TDC              | DKK      | 155                             | 11,651                  | 1%                                |
| Swisscom         | CHF      | 58                              | 5,763                   | 1%                                |
| Vodafone         | GBP      | 630                             | 84,777                  | 1%                                |
| BT               | GBP      | -                               | 5,432                   | 0%                                |

The unrecognised (potential) deferred tax assets for some of these operators are even larger. For example, Vodafone reported total available (unrecognised) tax losses carried forward amounting to GBP 83 billion; BT, GBP 24 billion; KPN, EUR 22 billion; and France Télécom and Telecom Italia, EUR 5 billion each.

## Significant judgment is involved in determining deferred tax assets

Many telecommunications companies share the same practical issues in determining the value of deferred tax assets. Twelve of the fourteen telecom operators listed in Figure 1 reported the valuation of DTAs as a critical accounting estimate in their 2008 financial statements. The disclosures they made indicate that operators struggle particularly in assessing whether sufficient taxable income will be available against which the carryforward losses can be utilised. This paper discusses how companies respond to this issue in practice.

Figure 2: Example DTA accounting policy disclosures

### Deutsche Telekom 2008

Deferred tax assets are recognised to the extent that their utilisation is probable. The utilisation of deferred tax assets will depend on whether it is possible to generate sufficient taxable income in the respective tax type and jurisdiction, taking into account any legal restrictions on the length of the loss-carryforward period. Various factors are used to assess the probability of the future utilisation of deferred tax assets, including past operating results, operational plans, loss-carryforward periods, and tax planning strategies.

### France Télécom 2008

At each period end, France Télécom reviews the recoverable amount of the deferred tax assets carried by certain tax entities with significant tax loss carryforwards. Deferred tax assets arising on these tax losses are not recognised under certain circumstances specific to each company/tax consolidation group concerned, and particularly where:

- Entities cannot assess the probability of the tax loss carryforwards being set off against future taxable profits, due to forecasts horizon and uncertainties as to the economic environment
- Entities have not yet begun to use the tax loss carryforwards
- Entities do not expect to use the losses within the timeframe allowed by tax regulations
- Tax losses are uncertain to be used due to risks of differing interpretations with regard to the application of tax legislation

## Which rules apply?

The relevant international accounting standard is IAS 12 *Income Taxes*. The standard provides that a DTA should be recognised for all deductible temporary differences, to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilised. Similarly, a DTA should be recognised for the carryforward of unused tax losses and unused tax credits, to the extent that it is probable that future taxable profit will be available against which the unused tax losses and unused tax credits can be utilised.

Unlike many of the more recent International Financial Reporting Standards, the asset is determined not on the basis of its fair value or discounted values, but rather at its nominal amount. This is a particular concern due to the generally long periods required to recover the net operating losses. The farther a company needs to look into the future to estimate taxable profits, the harder it will be to make a reliable estimate. As discounting cannot be applied to reduce the relative impact on the value of later years, companies need to find ways to deal with the inherent uncertainties in their forecasts.

### Example 1

Telecom operator X has significant carryforward losses as a result of licence and network impairments recognised in the past amounting to EUR 20 billion. These carryforward losses do not expire. In recent years, the operator has been profitable and expects to sustain its profitability. Accordingly, the operator recognises a DTA. The current profit level is EUR 100 million (taxable profit). Based on that profit level, utilising the carryforward losses in full will take 200 years.

An analysis of the recoverability of deferred tax assets considers:

- The availability of sufficient taxable temporary differences
- The probability that the entity will have sufficient taxable profits in the future, in the same period as the reversal of the deductible temporary difference or in the periods into which a tax loss can be carried back or forward
- The availability of tax planning opportunities that allow the recovery of DTAs

The first and last of those factors generally are a matter of applying relevant fiscal laws and regulations. For available temporary differences, there may be judgment resulting from uncertain tax positions to the extent that tax assessments are not final. Tax planning opportunities have an inherent uncertainty insofar as they have not yet been confirmed by the tax authorities.

The remainder of this paper focuses primarily on the analysis that should be made in order to assess the probability that future taxable profits will be available to recover the DTAs. To begin with, however, a few comments on the need for a thorough analysis.

## The thoroughness of the analysis should reflect the materiality and level of judgment

By its nature, a deferred tax asset is evidenced solely by the underlying analysis. As can be seen in Figure 1, for many telecommunications companies, the potential DTA is material, or even fundamental, to the financial statements as a whole. In addition, determining probabilities in the assessment of a DTA is highly judgmental. The level of judgment will depend also on an entity's track record with regard to the predictability of its core earnings. When tax losses are caused by a non-recurring event for an otherwise profitable company, the nature of the judgment is different than that for an entity that has had more loss-making years in recent history. The thoroughness of the analysis should reflect both the materiality of the (potential) DTA and the level of judgment involved.

The key judgment in the analysis relates to probability. The term probable is not defined in IAS 12; but with reference to IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*, it is generally defined as 'more likely than not'. In other words, if it is more likely than not that all or any portion of the deferred tax asset will be recovered, that part of the asset should be recognised.

Figure 3: Example disclosure of 'likelihood' criterion

### Vodafone 2008/2009

The recognition of deferred tax assets is based upon whether it is more likely than not that sufficient and suitable taxable profits will be available in the future, against which the reversal of temporary differences can be deducted.

A factor that may drive behaviour is the probability of challenge by regulators and the company's stakeholders, or even the tax authorities. We commonly hear that management believes the risk of challenge is higher for recognising an unduly high DTA than for an unduly low DTA.

That does not mean companies should be excessively conservative in assessing the valuation of DTAs. According to the IFRS framework, the information contained in financial statements must be neutral, that is, free from bias. The exercise of prudence in preparing the financial statements does not justify deliberately understating assets, because the financial statements would not be neutral and, therefore, would not have the quality of reliability.

Both favourable and unfavourable evidence should be considered in the analysis. Objectively verifiable evidence generally will be given greater weight than less objectively verifiable evidence. A strong earnings history or existing long-term contracts that generate stable future profits will provide the most objective evidence in assuming future profitability when assessing the extent to which a DTA can be recognised.

Greater care is needed, however, if prior years' losses are very significant relative to expected annual profits. In that case, positive evidence of future taxable profits may be less objectively verifiable. Therefore, evidence of future taxable profits may be assigned lesser weight in assessing the appropriateness of recording a DTA when other evidence is unfavourable. Specifically, in the case of a history of losses that did not result from identifiable causes that are

unlikely to recur, it is unlikely that a DTA can be recognised. IAS 12 explains that when an entity has a history of recent losses, *convincing evidence of sufficient future taxable profits is required* before a DTA can be recognised.

The entity should have regard to any time limit on the carryforward of tax losses. However, whilst it may be that the longer into the future an assessment is required the less probable any particular level of taxable profit becomes, there should be no arbitrary cut-off in the time horizon over which such an assessment is made. This point is considered further in the duration of this paper.

## The availability of future taxable profits – a problem in four parts

The best starting point for determining the availability of future taxable profits is a company's own business planning cycle and resulting forecasts.

Using the company's forecasts to assess the value of assets with potentially significant impact is not a unique exercise for most telecom operators. Given the significant balances of goodwill, other intangible and tangible assets, impairment testing is an important element of their financial reporting process. Impairment tests generally are based on approved budgets, which result from a robust budgeting process, and often external experts are involved throughout the impairment process. Often, the analyses used in impairment testing are in some way adjusted, for example to eliminate deliberate 'challenges' inserted in the budget for internal management purposes, or to adjust for market perception of risk levels.

Given the fact that these robust forecasts already are available, we see that generally they are also used as a basis for the DTA analysis. Indeed, we would argue that if the analyses are robust enough to maintain significant amounts of goodwill and other assets on the balance sheet, using other assumptions when assessing the valuation of DTAs is hard to justify. Assessing the value of DTAs, therefore, should be broadly consistent with the assumptions used for impairment testing.

Nevertheless, the four common differences that exist in forecasting future taxable profits must be considered, and we discuss them below.

### 1. Determining cash flows on the basis of an entity's business, not its disposal value

In an impairment test performed in accordance with IAS 36 *Impairment of Assets*, the recoverable amount of a cash generating unit is determined. The recoverable amount is the higher of the value in use and the fair value less the cost to sell.

The fair value less cost to sell may be based on the net proceeds that are expected to be generated by the sale of one or more subsidiaries that together form the relevant cash generating unit. When considering the valuation of the DTAs of these subsidiaries, however, the value in use assumptions are the only relevant basis for evaluating the forecasts of their future taxable income. On the other hand, the forecast for deferred tax purposes may include elements such as the impact of future restructuring activities or from improving or enhancing the asset's performance, which would be restricted or prohibited under IAS 36.

All this may mean that although a company expects its goodwill and other assets to be fully recoverable in the event of external sale, insufficient future taxable profits may exist to justify recognising a DTA.

Cash flow forecasts should be translated to taxable profits under applicable tax laws and regulations. Depreciation and interest expenses that are not included in a value in use calculation should be taken into account in the taxable profit analysis if they are tax deductible. At the same time, forecasted taxable profits should exclude non-taxable or non-deductible items that are included in the value in use calculation.

## Example 2

Telecom operator X has significant carryforward losses as a result of licence and network impairments recognised in the past. The carrying amount of the licence and network assets is EUR 4.5 million. The expected remaining useful life is five years. Based on the 2009 impairment test, the operator concludes that no additional impairment should be recognised, nor is there a basis for an impairment reversal, i.e. the recoverable amount at the end of 2009 approximates the carrying amount of the cash generating unit, which includes the licence and network assets:

|   | 2010      | 2011      | 2012      | 2013      | 2014      | Total     |
|---|-----------|-----------|-----------|-----------|-----------|-----------|
| Net cash flow before interest and taxes (EUR)                 | 1,000,000 | 1,020,000 | 1,050,000 | 1,150,000 | 1,250,000 | 5,470,000 |
| Discounted value (weighted average cost of capital: 8%) (EUR) | 962,250   | 908,792   | 866,223   | 878,445   | 884,104   | 4,499,815 |

The operator has incurred significant debt in the past, and annual interest charges amount to EUR 500,000. Assuming that the company's net cash flow before interest and taxes is equal to its EBITDA (earnings before interest, taxes, depreciation and amortisation), and that depreciation equals the deductible amount for tax purposes, the forecasted results are as follows:

|                             | 2010      | 2011      | 2012      | 2013      | 2014      | Total       |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|
| EBITDA                      | 1,000,000 | 1,020,000 | 1,050,000 | 1,150,000 | 1,250,000 | 5,470,000   |
| Depreciation                | (900,000) | (900,000) | (900,000) | (900,000) | (900,000) | (4,500,000) |
| Interest                    | (500,000) | (500,000) | (500,000) | (500,000) | (500,000) | (2,500,000) |
| Taxable profit/(loss) (EUR) | (400,000) | (380,000) | (350,000) | (250,000) | (150,000) | (1,530,000) |

Although positive cash flows before interest and taxes are expected and operator X did not recognise an impairment charge in 2009, there is insufficient basis to recognise a DTA for the carryforward losses available at the end of 2009, since the company does not expect taxable profits in the near future.



Often, the timing and amount of tax deductions for depreciation and interest can differ from their equivalent accounting expenses. For example, an asset may be depreciated (or impaired) for accounting purposes over a shorter period than that over which tax relief is obtained, resulting in a deductible temporary difference. Normally, in determining the sufficiency of taxable profits under IAS 12, taxable amounts arising from future deductible temporary differences are ignored. Therefore, for simplicity, forecasts include accounting rather than tax amounts. However, careful analysis will be necessary when losses cannot be carried forward indefinitely.

Particular issues exist when forecasts include the amounts relevant for tax purposes (rather than the accounting deductions) and losses are recoverable only against taxable profits arising as a result of future deductible temporary differences. In that case, those taxable profits can be taken into account only if the DTAs relating to the future deductible temporary differences also can be recovered subsequently.

### Example 3

A start-up telecom operator has incurred tax losses of EUR 100 million. The IFRS results of the entity, approximately EUR 5 million annually, are still negative and are expected to be negative in the near term. For tax purposes, however, decommissioning expenses are recognised as incurred and thus no decommissioning liabilities are recognised. As a result, tax profits are slightly positive in the early years of operation, as the operator's depreciation and interest expenses are lower for tax purposes than for IFRS purposes. The actual decommissioning expenditures are expected to be incurred starting in 2012.

Although the operator is profitable for tax purposes, no DTA is recognised since taxable IFRS profits are negative. The fact that some expenses are deferred for tax purposes gives rise to a deductible temporary difference. Because recovery of the deductible temporary differences that replace the carryforward losses still depends on the entity generating IFRS taxable profits, which currently is not the case, the recoverability of the DTA is assessed based on taxable IFRS profits.

## 2. Translating a cash generating unit into taxable entities

IAS 12 indicates that the recoverability of DTAs should be assessed with reference to the same taxation authority and the same 'taxable entity'. Sufficient future taxable profit must be available to the taxable entity where those deductible temporary differences or unused tax losses originated, in order for an asset to be recognised by that entity. To the extent that a tax group can recover tax losses or any deductible temporary differences generated, in consolidated financial statements, taking into account the taxable profits of all entities in the wider tax group would be appropriate.

This tax group, however, may not equal the cash generating unit that is the basis for business planning or impairment testing. A tax group may very well consist of multiple cash generating units, or a cash generating unit may consist of more than one taxable entity or tax group. For example, in the past many telecom operators have included licences or intellectual property in separate taxable entities that generate revenues by licensing out these assets at a predetermined (royalty) fee. Although these assets generate separate profits for tax purposes, the assets generally would not constitute a separate cash generating unit for impairment testing purposes.

## Example 4

In the past, operator A acquired a telecom licence at a significant cost. Under the terms of the licence, operator A provides telecom services over its network and could not operate without the licence. For tax purposes, the licence and the network are included in separate taxable entities. The licence is held by entity B and the network by C. A is the owner of the group's customers and generates revenues from the services provided to these customers. The entities that hold the licence and the network each charge A with a fee for the use of these assets. In the past, an impairment was recognised, which was allocated pro rata to the licence and the network assets.

For impairment testing purposes, operator A classifies its own assets combined with the licence and underlying network assets held by B and C as a single cash generating unit, as this is deemed the smallest unit to generate independent cash flows. For DTA valuation purposes, however, the future taxable profits of B and C should be assessed separately because they are the entities that incurred the losses in the past and should generate future taxable profits to recover the respective DTAs.

As a result of differences between taxable entities and cash generating units, the forecasts that were the basis for impairment testing may have to be broken into smaller elements to assess the valuation of carryforward losses. This may result in DTAs being recognised in a loss-making cash generating unit or in no asset being recognised even though the cash generating unit is profitable.

### 3. Assessing legal or contractual limits to the recovery period

In many jurisdictions, limits exist on the recovery of tax assets. Typically, a limit is implemented as a maximum recovery period. This presents a cut-off for the cash flow projection period in determining the DTA.

Contractual limits to the recovery period may also exist. The operator may have special purpose entities to hold, for example, a telecommunications licence or a patent. These entities typically acquire the intangible asset and licence it to a service entity of the operator, against a contractually pre-established fixed or variable royalty. The life of such entities is de facto limited to the contractual life of the underlying asset, which in turn presents a cut-off for the cash flow projection period in determining the DTA. Tax planning opportunities may exist to recover any remaining temporary differences or unused losses at the expiration of the contract, but these opportunities should be sufficiently probable and evidenced to be usable in supporting further DTAs.

### 4. Weighing the uncertainties in future profits and cash flows

Where there is a balance of favourable and unfavourable evidence, careful consideration is given to an entity's projections for taxable profits for each year from the balance sheet date until the expiry date of the carryforward losses. As indicated before, the projections that are the basis for the assessments must be broadly consistent with the assumptions made about the future in relation to other aspects of financial accounting (for example, impairment testing).

The exception occurs when relevant standards require a different treatment (for example, impairment testing generally cannot take account of future investment).

IAS 36 requires that, in an impairment test, the projections be made on the basis of reasonable and supportable assumptions that represent management's best estimate of future profits. However, no matter how robust the forecasting process has been, there is always a risk that actual future outcomes will differ from these estimates. In the traditional impairment testing approach, such risks are generally incorporated in a single discount rate. The higher the risks in the estimated future cash flows, the higher the element that is included in the discount rate to reflect the risk that the future cash flows will differ from the estimates in amount or timing.

## Example 5

Telecom operator X operates in its home country, where it holds the number 1 position. The market is mature and predictable. Management predicts an annual net cash flow of EUR 1 million. Given the low risk involved in this estimate, a discount rate of 8% is applied to these forecasts. Recently, operator X also entered a new country, where it currently holds the number 4 position and expects significant growth opportunities. As a result of expected market growth and growth of its market share, operator X expects to double in size during the next three years, after which it plans to maintain a stable cash flow. Given the risk involved in this business plan, a 20% discount rate is applied to the forecasts.

The table below illustrates how the risk involved in management's forecasts affects the weight that is assigned to these forecasts in the impairment test:

| Year | Cash flow home country (EUR) | Discounted value at 8% (EUR) | Weight in impairment test (EUR) | Cash flow new market (EUR) | Discounted value at 20% (EUR) | Weight in impairment test |
|------|------------------------------|------------------------------|---------------------------------|----------------------------|-------------------------------|---------------------------|
| 2010 | 1,000,000                    | 925,926                      | 93%                             | 100,000                    | 83,333                        | 83%                       |
| 2011 | 1,000,000                    | 857,339                      | 86%                             | 200,000                    | 138,889                       | 69%                       |
| 2012 | 1,000,000                    | 793,832                      | 79%                             | 500,000                    | 289,352                       | 58%                       |
| 2013 | 1,000,000                    | 735,030                      | 74%                             | 1,000,000                  | 482,253                       | 48%                       |
| 2014 | 1,000,000                    | 680,583                      | 68%                             | 1,000,000                  | 401,878                       | 40%                       |
| 2015 | 1,000,000                    | 630,170                      | 63%                             | 1,000,000                  | 334,898                       | 33%                       |
| 2016 | 1,000,000                    | 583,490                      | 58%                             | 1,000,000                  | 279,082                       | 28%                       |
| 2017 | 1,000,000                    | 540,269                      | 54%                             | 1,000,000                  | 232,568                       | 23%                       |
| 2018 | 1,000,000                    | 500,249                      | 50%                             | 1,000,000                  | 193,807                       | 19%                       |
| 2019 | 1,000,000                    | 463,193                      | 46%                             | 1,000,000                  | 161,506                       | 16%                       |
| 2024 | 1,000,000                    | 315,242                      | 32%                             | 1,000,000                  | 64,905                        | 6%                        |
| 2029 | 1,000,000                    | 214,548                      | 21%                             | 1,000,000                  | 26,084                        | 3%                        |
| 2039 | 1,000,000                    | 99,377                       | 10%                             | 1,000,000                  | 4,213                         | 0%                        |
| 2049 | 1,000,000                    | 46,031                       | 5%                              | 1,000,000                  | 680                           | 0%                        |
| 2059 | 1,000,000                    | 21,321                       | 2%                              | 1,000,000                  | 110                           | 0%                        |

As the example indicates, in an impairment test the further the expected cash flows lie into the future, the lower the weight assigned to the cash flows. One reason is the time value of money ('it is better to receive one euro today than in a year'). A significant factor, though, is the risk involved, as the table illustrates by the differences in weights assigned to the low-risk and to the high-risk forecasts. Irrespective of the risk involved, beyond a certain point in time virtually no value is assigned to the forecasted cash flows. For the high-risk cash flows, the cash flows expected in year 10 add only 16% of their nominal amount to the value of the asset, and the cash flows projected after 30 years receive no weight at all.

IAS 12, however, does not permit the discounting of DTAs (or liabilities), based on the argument that detailed scheduling of the timing of the reversal of temporary differences is impracticable or highly complex. As a result, companies need to consider other methods that appropriately reflect risk in their forecasts of future taxable profits. This issue particularly affects telecommunications companies, because their large capital intensity dictates longer periods to recoup net operating losses.

In our experience, companies in this industry seek methods that will allow them to take into account increasing uncertainty as time progresses. Three possible methods that we see in practice are considered below.

#### **(i) Lookout-period approach**

The further into the future it is necessary to look for sufficient taxable profits (the 'lookout' period), the more subjective the projections become. It may be argued that the probability of taxable profits decreases over time such that there could be a point beyond which no reliable earnings projections can be made, and thus that taxable profits are no longer probable. However, we believe that generally there should be no arbitrary cut-off in the time horizon over which an assessment of expected taxable profits is made.

Without specific circumstances, we consider it inappropriate to assume that no taxable profits are probable after a specified time period. The expiration date of a significant licence, for example, and uncertainty about the company's ability to extend the licence to stay in business beyond the expiration date could be such a specific circumstance a telecom operator would take into consideration.

### **Example 6**

Three years ago, telecom operator X acquired a 10-year mobile telecom licence in country Y, which has a fast-growing mobile telephony market. In the first two years, operator X incurred start-up losses, but the company is now moving into a profitable position. The government of country Y does not have a policy of renewing licences after the initial term. As a result, operator X expects that after the initial 10-year period it will have to compete for a new licence in an auction with existing operators and potential new entrants. It is uncertain whether, and at what price, operator X will be able to acquire a new licence. Therefore, operator X concludes that it is not appropriate to include future taxable profits beyond the 7-year horizon until the next auction.

Given the increased uncertainty beyond a specific point in the future, using a restricted lookout period is not necessarily inconsistent with the assumptions used in the company's impairment test. The first reason is that, in a high-risk scenario, the discount rate used in the impairment test should reflect this risk appropriately. In example 5, the weight assigned to an expected cash flow of 100 in year 7 is only 28 in the high-risk scenario. The second reason is that the business case for the price paid in a new auction will be based on future cash flow projections, whereas taxable profits may deviate from these cash flows as a result of tax deductible depreciation or interest charges.

In the absence of a specific circumstance, the use of a specific lookout period generally is not appropriate. In that situation, the lookout period is likely to be arbitrary. Thus, for every year until the expiry of tax losses, the calculation should include the taxable profits that satisfy the criterion of being more probable than not. This may result in lower estimates for years in the distant future, but it does not mean that those years should not be considered.

#### **(ii) Risk-adjusted profits approach**

As indicated above, the traditional impairment test approach is based on a company's best estimate of future cash flows and uses a single discount rate to incorporate all the risks related to expectations about the future cash flows. Although IAS 12 does not allow discounting of DTAs, the underlying reasoning for discounting future cash flows in an impairment test may be applied also in assessing the valuation of DTAs. The discount rate in an impairment test should reflect both the time value of money and the risks specific to the asset for which the future cash flow estimates have not been adjusted. The discount rate thus adjusts the value assigned to expected future cash flows to reflect the risk that actual cash flows will fall short of the expectation.

If the cash flow forecasts in the impairment model are translated into expected future taxable profits without adjusting for the inherent risk that the actual taxable profits could be lower, the DTA that is recognised will be too optimistic. Adjusting the expected future taxable profits by using a risk factor, therefore, would be appropriate. This risk factor can be derived from the risk premium that is included in the discount rate used in the impairment test.

For a telecom operator, however, the risk related to future cash flows may differ from the risk related to future taxable profits. This difference results from large asset bases and the resulting depreciation charges, which may not affect future cash flows but which do affect future taxable profits. Similar to the use of a discount rate in an impairment test, the risk factor applied to taxable profits that are expected further into the future is likely to be higher than the factor applied to the taxable profits in the early years of the forecast.

## Example 7

Telecom operator X operates in its home country, where it holds the number 1 position. As a result of impairment charges in the past, the company has carryforward losses available. Operator X expects that it can sustain a taxable profit of EUR 1 million during the next 20 years, at which point its carryforward losses will have expired. However, given regulatory developments and increasing competition, there is a risk that the operator will lose market share and that pricing pressure will increase. A premium of 10% to reflect these risks is considered appropriate.

The table below illustrates how the risk involved in management's forecasts affects the level of future taxable profit that is considered probable (risk-adjusted taxable profit):

| Year         | Expected taxable profit (EUR) | Risk-adjustment factor | Risk-adjusted taxable profit (EUR) |
|--------------|-------------------------------|------------------------|------------------------------------|
| 2010         | 1,000,000                     | 1.1000                 | 909,091                            |
| 2011         | 1,000,000                     | 1.2100                 | 826,446                            |
| 2012         | 1,000,000                     | 1.3310                 | 751,315                            |
| 2013         | 1,000,000                     | 1.4641                 | 683,013                            |
| 2014         | 1,000,000                     | 1.6105                 | 620,921                            |
| 2015         | 1,000,000                     | 1.7716                 | 564,474                            |
| 2016         | 1,000,000                     | 1.9487                 | 513,158                            |
| 2017         | 1,000,000                     | 2.1436                 | 466,507                            |
| 2018         | 1,000,000                     | 2.3579                 | 424,098                            |
| 2019         | 1,000,000                     | 2.5937                 | 385,543                            |
| 2020         | 1,000,000                     | 2.8531                 | 350,494                            |
| 2021         | 1,000,000                     | 3.1384                 | 318,631                            |
| 2022         | 1,000,000                     | 3.4523                 | 289,664                            |
| 2023         | 1,000,000                     | 3.7975                 | 263,331                            |
| 2024         | 1,000,000                     | 4.1772                 | 239,392                            |
| 2025         | 1,000,000                     | 4.5950                 | 217,629                            |
| 2026         | 1,000,000                     | 5.0545                 | 197,845                            |
| 2027         | 1,000,000                     | 5.5599                 | 179,859                            |
| 2028         | 1,000,000                     | 6.1159                 | 163,508                            |
| 2029         | 1,000,000                     | 6.7275                 | 148,644                            |
| <b>Total</b> | <b>20,000,000</b>             |                        | <b>8,513,564</b>                   |

As the table indicates, the operator expects future taxable profits of EUR 20 million during the 20 year period, but the risk-adjusted expected future taxable profits are much lower at EUR 8.5 million. The operator concludes that only EUR 8.5 million of the forecasted taxable profits meets the probability threshold.

### (iii) Expected profits approach

Instead of using a single estimate of future taxable profits and reflecting all risks in a single risk factor, it is also possible to estimate a range of possible taxable profits and assign probabilities to each of the estimates. The expected profits approach breaks down the risks and uses all expectations about possible outcomes instead of the single most likely taxable profit.

#### Example 8

Telecom operator X recently entered the market in country Y and acquired a licence that will expire in 2016. An auction will take place in 2016. Whether operator X will be able to acquire a new licence and, if so, under which conditions is uncertain. Another auction will take place in 2020. The strategy of operator X is to gain market share quickly in 2010 and 2011 and to maintain that market share and profitability in subsequent years.

The operator has prepared three scenarios for developing its future taxable profits and has assigned weights to each scenario:

| Year | Taxable profit scenario 1 (EUR) | Probability | Taxable profit scenario 2 (EUR) | Probability | Taxable profit scenario 3 (EUR) | Probability |
|------|---------------------------------|-------------|---------------------------------|-------------|---------------------------------|-------------|
| 2010 | 1,000,000                       | 0%          | 500,000                         | 60%         | 0                               | 40%         |
| 2011 | 1,000,000                       | 30%         | 500,000                         | 50%         | 0                               | 20%         |
| 2012 | 1,000,000                       | 60%         | 500,000                         | 30%         | 0                               | 10%         |
| 2013 | 1,000,000                       | 80%         | 500,000                         | 20%         | 0                               | 0%          |
| 2014 | 1,000,000                       | 80%         | 500,000                         | 20%         | 0                               | 0%          |
| 2015 | 1,000,000                       | 80%         | 500,000                         | 20%         | 0                               | 0%          |
| 2016 | 1,000,000                       | 40%         | 500,000                         | 40%         | 0                               | 20%         |
| 2017 | 1,000,000                       | 30%         | 500,000                         | 40%         | 0                               | 30%         |
| 2018 | 1,000,000                       | 20%         | 500,000                         | 40%         | 0                               | 40%         |
| 2019 | 1,000,000                       | 20%         | 500,000                         | 40%         | 0                               | 40%         |
| 2020 | 1,000,000                       | 20%         | 500,000                         | 30%         | 0                               | 50%         |
| 2021 | 1,000,000                       | 20%         | 500,000                         | 30%         | 0                               | 50%         |
| 2022 | 1,000,000                       | 20%         | 500,000                         | 30%         | 0                               | 50%         |
| 2023 | 1,000,000                       | 20%         | 500,000                         | 30%         | 0                               | 50%         |
| 2024 | 1,000,000                       | 20%         | 500,000                         | 30%         | 0                               | 50%         |
| 2025 | 1,000,000                       | 20%         | 500,000                         | 30%         | 0                               | 50%         |
| 2026 | 1,000,000                       | 20%         | 500,000                         | 30%         | 0                               | 50%         |
| 2027 | 1,000,000                       | 20%         | 500,000                         | 30%         | 0                               | 50%         |
| 2028 | 1,000,000                       | 20%         | 500,000                         | 30%         | 0                               | 50%         |
| 2029 | 1,000,000                       | 20%         | 500,000                         | 30%         | 0                               | 50%         |

## Example 8 (continued)

Based on these scenarios, the operator concludes that the following forecasted taxable profit amounts meet the probability threshold and should be taken into account in the valuation of the DTA:

| Period       | Profit level (EUR) | Total (EUR)      |
|--------------|--------------------|------------------|
| 2010-2011    | 500,000            | 1,000,000        |
| 2012-2015    | 1,000,000          | 4,000,000        |
| 2016-2019    | 500,000            | 2,000,000        |
| >2020        | -                  | -                |
| <b>Total</b> |                    | <b>7,000,000</b> |

The operator concludes that only EUR 7 million of the forecasted taxable profits meets the probability threshold.

In example 8, the profit level considered probable in years 2016 to 2019 is EUR 500,000 (as there is at least a 20% chance of EUR 1,000,000 profit and a 40% chance of EUR 500,000 profit, meaning that there is at least a 60% chance of EUR 500,000 profit). The operator does not assign any weight to the chances of taxable profits of EUR 500,000 or EUR 1,000,000 in the year 2020 and beyond since this profit level is not considered probable (a 20% chance of EUR 1,000,000 profit and a 50% chance of at least EUR 500,000 profit). In an impairment analysis, it is likely that weight would be given to the chance that future cash flows are higher than nil in these years, and the associated risks would be reflected in the discount rate that is used.



# Conclusion

The potential tax benefit from past operating losses of telecom operators is a significant asset to these companies. The accounting for DTAs requires a high level of judgment and warrants thorough analysis and documentation.

The main judgment is the level of evidence of future taxable profits, consisting of a breakdown of projected taxable profits for each taxable entity, as well as a determination of the level of probability thereof. While in many cases an operator's own business forecasting and impairment analyses can be a good starting point for the forecasts to be used for DTA valuation, some significant adjustments need to be made to align the analysis to the requirements for DTA valuation in IAS 12.

An important aspect is the fact that a DTA is valued on an undiscounted basis, especially as recovering some operators' carryforward losses will take considerable time. The discount rate in an impairment model is a measure important in reflecting the uncertainties inherent in a forecast. Since in a DTA valuation these uncertainties are not reflected in a discount rate, operators need to find other ways to deal with this. This document gives some practical tools that we have seen being used in practice, and undoubtedly there are other methods as well. We recommend performing the analysis by using a combination of available methods and looking for a common ground in the outcomes.

No matter which method or methods are used, a significant element of judgment will be involved in the valuation of DTAs. A robust, well-documented analysis and decision making at the appropriate management level, therefore, will be a minimum requirement. In addition, disclosure will be required in the financial statements of the assumptions made about the future and other major sources of estimation uncertainty that have a significant risk of resulting in a material adjustment to the carrying amounts of DTAs.

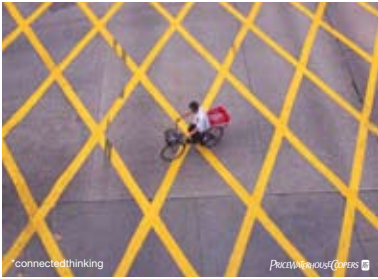
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