

Fixed Asset Valuation & Fair Value Measurement for Telcos and Infrastructure Management Companies

I. Abstract

Investaura has recently completed a **fixed asset revaluation** project for a major telecoms service provider operating in multiple countries globally. The client had issues on its **balance sheet**, with the values of fixed assets reported substantially departing from their fair value. The project was undertaken over a 3-month period and looked into **\$1bn of fixed assets** in the following asset classes: Land, Building, Towers, Telecoms equipment, Software, Spectrum and licences. This whitepaper highlights the **methodology** that Investaura consultants used for the assignment.

The revaluation was undertaken in **compliance with the IFRS framework**, in particular IFRS 13 (Fair Value measurement), IAS 36 (impairment), IAS 16 (tangible non-current assets) and IAS 38 (intangibles). Our consultants also **deeply engaged with external auditors** to confirm that the revaluation results would be accepted. We are now supporting the client in the **implementation phase**, with the valuation results being captured in the accounting systems and financial statements.

Benefit to the client: The consultants identified a few hundred millions of USD of revaluation in various asset classes, with positive impacts both on the Balance Sheet and the Profit and Loss of the client.

Keywords: Asset valuation, Fair Value, IFRS, Tower valuation, Intangibles valuation

About the authors



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Stefan Stanislawski is an associate Partner at Investaura. Stefan was the third person to join Analysys and played a major role in its growth from start-up into a globally respected advisory firm. Stefan has worked on projects to create the world's fastest FTTH operator as well as planning of a 20,000 cabinet rollout. He is known for his integrity and clarity of thinking on the most complex problems and topics. He can be joined at stefan.stanislawski@investaura.de.

Accounting treatment of assets under IFRS: Presentation and valuation

Class	Classification	Applicable IFRS standard(s)	Principles under IFRS	Statement of financial position	Statement of comprehensive income	Taxation	Requirements for application of fair value principles	Comparable US-GAAP
Tangible non-current assets: Property, plant and equipment	Used in business operations over multiple periods, not primarily for disposal	IAS 16, IAS 36, IFRS 13	Cost model OR Re-valuation model: Cost less accumulated depreciation and any impairment identified OR Fair value	Increase and reversals: Revaluation reserve (+/-) except if reversal of impairment Impairment (IAS 36) and reversals: Retained earnings (-/+) except if reversal of increase	Increase and reversal: Revaluation gains/losses (other comprehensive income) Impairment and reversal: Profit and loss	Deferred taxes (till disposal) Current taxes	<ul style="list-style-type: none"> • Qualified and documented appraisal needed • All assets of a similar type treated equally • Regular review required (full valuation every 5 years and interim valuation in year 3) 	Only impairment and reversal of impairment allowed: Profit and loss
Intangible non-current assets <i>Exception: Goodwill from business combinations</i>	Used in business operations over multiple periods, not primarily for disposal	IAS 38, IAS 36, IFRS 13	Same as tangible assets <i>Except for goodwill (impairment test)</i>	Same as tangible assets <i>Except for goodwill (impairment and reversals only)</i>	Same as tangible assets <i>Except for goodwill (impairment and reversals only)</i>	Same as tangible assets <i>Except for goodwill (impairment and reversals only)</i>	Same as tangibles PLUS active market established <i>Except for goodwill (impairment test)</i>	Same as tangible assets <i>Goodwill requires frequent testing</i>
Investment property	Held but not used in business operations: Rental or speculation property, investment securities, etc.	IAS 40	Fair market value	Retained earnings	Profit and loss: Other income	Current taxes	Market value or appraisal	Differentiation: <ul style="list-style-type: none"> • Trading: Profit and loss • Available for sale: Other comprehensive income • Held to maturity (debt securities): Amortized cost.
Financial instruments		IAS 39						
Current assets: Inventories	Consumed/converted/sold in operations within normal business cycle	IAS 2	Lower of cost and NRV (net realisable value)	Retained earnings	Profit and loss	Current taxes	Determination of NRV=Proceeds less expenses of disposal	Same as IFRS
Discontinued operations held for disposal	Available and decided to be disposed of within next reporting period	IFRS 5	At lower of cost less past accumulated depreciation (no further depreciation!) or NRV (net realizable value)	All associated assets and liabilities carved out from ongoing business	Net of taxes, below the line of ongoing business	Netted into discontinued business	Determination of NRV=Proceeds less expenses of disposal	Same as IFRS

II. Our engagement and Scope of Work

Investaura Management Consultants was engaged by a major telecom group to perform a comprehensive valuation on non-current assets in the telecommunications network operations run by the client.

We were to perform agreed-upon procedures as set out later in the following sections with the purpose of:

- assessing the consistent implementation of fair value measurement of non-current assets across the client's operations;
- updating the valuations of specific classes of non-current assets, as listed below; and
- ensuring compliance with the IFRS framework.

The practitioners and experts involved in this project were independent with regard to the client entities.

Our engagement was mainly about valuation. We did not cover internal control, although we did report on any control issues that came to our attention. We were not responsible for identifying optimization potentials in the management and operations of the assets under consideration. However, we did include any such observations made in the course of our assignment in our report to the management of the client.

The classes of non-current assets within the scope of this assignment were:

- 1) Real estate: land and building
- 2) Towers
 - 2a) Towers as constructions
 - 2b) Towers as a 'portfolio' (Tower Company, multiple tenants per site)
- 3) Network assets
- 4) Software licences
- 5) Operating and spectrum licences

Of these, (1) were covered by CNC Property Valuation Services, a British real estate partner of Investaura; (2), (3), (4) and (5) were covered by Investaura.

III. Basis for measurement under the IFRS framework

Whereas writing down non-current assets when their value is impaired is generally standard practice under GAAP, reflecting the concept of prudence, **IFRS allows for a revaluation to both sides**, including marking non-current assets up to market. The basis for measurement is either the cost model (historical cost less accumulated depreciation), or the revaluation model (fair market value).

Tangible non-current assets are covered by **IAS 16** and intangibles by **IAS 38**. The accounting effect of an upward revaluation on the statement of financial position is the creation/increase of a (non-distributable) revaluation reserve in equity, and a deferred tax portion (where applicable); and on the statement of comprehensive income, an addition to other comprehensive income. On the other hand, write-downs are taken to profit and loss, and retained earnings.

Outside the scope of IAS 16 and IAS 38, marking-to-market is required for investment property (**IAS 40**); and for current assets to the extent that market is lower than cost, to net realisable value (NRV).

Finally, any business units to be disposed of within the next period are classified as “discontinued, held for sale” and shall be set aside, in terms of associated assets and liabilities, to be reported “below the line”, at the values to be realized.

The adoption of the revaluation model essentially requires:

- The use of a proven and well-documented methodology;
- The engagement of qualified, skilled appraisers that are subject matter experts in the particular industry and regarding the asset classes concerned;
- Ensuring that the revaluation model is consistently applied across classes of similar assets, currently and in the future;
- Following up with valuation updates at regular intervals, with a recommended detailed revaluation every 5 years and an interim check in year 3; and
- In the case of intangible assets, additionally, having demonstrated marketability.

IV. Preliminary and generic requirements

Appraisers’ qualification and understanding of the specific industry and asset classes

The appraiser ought to be a professional with relevant subject-matter expertise (industry, asset classes), possibly evidenced through professional certification, and substantial practical experience. Besides, the appraiser should be sufficiently independent and objective with regard to the entities and assets to be assessed.

The three Investaura consultants on this project together bring 70 years of telecoms consultancy experience all around the globe, having references in 50+ countries, including 18 countries in the Middle East and Africa. The CNC staff on this project total 85 years of real estate experience in 20 countries, including 7 countries in the Middle East and Northern Africa..

Both consultancies feature highly senior industry specialists with vast experience in all areas concerned by this assignment, good understanding of regulation, equipment and services supply side, competitive environment and markets. They have first-hand benchmark knowledge and an existing network of industry players approachable for determinations as to the marketability of various assets.

Based on above assessment, we determine deep industry knowledge to be present in the engagement team.

Gaining an understanding of the client's particular business

Before starting the field work, the consultants collected main market and business data for the operations under the scope of this assignment, including population, telecommunications market size and growth, competitive situation, market share and subscriber development, revenue statistics in total and average per user, and profitability metrics. We read the statements of comprehensive income and cash flow statements for 2012, 2013 and 2014 as well as the statements of financial position for the periods then ended.

V. Analytical procedures

We applied analytical procedures during all phases of the engagement:

- During our engagement planning, to determine materiality, especially individually material assets and asset pools;
- Again during planning, to determine the level of detail in appraisal of individual assets, and sample sizes needed;
- As part of our substantive procedures, to derive top-down valuations and benchmarks for groups and classes of assets; and
- At the end of our engagement, to refine our conclusions with bottom-up valuations.

The specific analytical procedures used for the various asset classes during substantive procedures (valuation and classification) are described below.

Real estate (land, buildings)

For land we require all information related to the parcel of land including the title deed, affection plan, development details, and any information in relation to subleases. The approach will be to check against comparable transactions and compare this with the residual approach to ensure accuracy in the valuation.

For buildings we apply financial modelling techniques including an examination of the legal hereditament, an analysis of the current lease structures and their effect on value. Each property will be compared to transactions in the market as well as a financial assessment of the income generated by the property that will then be capitalised at an appropriate rate having allowed for vacancy, maintenance and obsolescence. This dual approach will confirm the real current value of the assets.

Towers

For towers (i.e. radio sites), we apply analytical procedures, on a per-country level, to the whole population of towers by taking into account total numbers, averages and clustering/splits as listed below.

- ✓ *Location and tower characteristics (e.g. type, height, space)*
- ✓ *Lease characteristics*
- ✓ *Costs*
- ✓ *Revenues from sharing*

Using these inputs, we perform a top-down valuation of towers as a whole using the following approaches:

- Depreciated replacement cost: The approach involves estimating the current replacement cost of the asset and then allowing for depreciation to arrive at the current depreciated replacement cost
- Fair market value: Establishing the marketability criterion and gathering market and transaction comparables from reference markets.
- DCF analysis: Modelling cash flow projections resulting when the portfolio is partially or wholly “monetised”, which can be achieved not only through a transaction with a tower company, but also by sharing with other operators in the market.

We would like to point out that – beside the valuation issue – from an entrepreneurial point of view, substantial CAPEX and OPEX reduction potential arises from sharing radio sites, be it through a direct arms’ length deal with another operator, or facilitated by a third party tower company.

Telecoms Network equipment

For network equipment (which includes all “active telecoms equipment” installed at the radio sites), we apply analytical procedures, on a per-country level, to the whole network architecture broken down into the various network domains:

- ✓ *Mobile networks (2G, 3G, 4G)*
- ✓ *Fixed wireless networks (e.g. CDMA, WLL etc)*
- ✓ *Fixed networks*
- ✓ *Satellite stations*
- ✓ *Submarine cables*

Our Top-down analysis takes into account the original cost of acquisition, age and total estimated lifetime of individually and collectively material (pooled) network assets, significant previous revaluations or impairments, technological and market developments, equipment price trends, and existing or available supplier arrangements.

Software licences

For software licenses, we apply analytical procedures, on a per-country level, to the various suites of software applications in the following domains:

- ✓ *BSS (Business Support Systems)*
- ✓ *Network and OSS (Operations Support Systems)*

For software licenses, analytical procedures focus on groups of software being in active use vs. unproductive, yielding a top-down estimate for fair value of the former, and for a possible recoverable value for the latter in case of sale, where permissible and marketable (investigated during the detailed assessment).

Operating and spectrum licences

For telecoms licences we apply analytical procedures on a per-country level, identifying their characteristics and any restrictions/limitations regarding their use, taking into account: licence documents, amount of spectrum, limitations of spectrum use by specific technology, transferability of the spectrum under licence and any general telecom regulation, any previous discussions with the regulator or other operators, licence fees paid for the mobile spectrum and payment dates, annual charges paid for the spectrum, expiry of each spectrum assignment, any automatic or guaranteed rights of renewal.

Using these inputs, we perform a top-down valuation of telecoms licences using:

- Comparables from reference markets as benchmarks (formulated e.g. as price per MHz per pop)
- DCF analysis: Modelling a high-level long-term business plan and determining the range of licence fees resulting in market-adequate project returns.

VI. Substantive procedures at asset level detail

Substantive procedures (or substantive tests) are those activities performed by experts to detect material misstatement at the assertion level.

Sampling

We itemize and separately assess any assets that are individually relevant. For those assets present in larger quantities and material only as a pool, we use sampling to choose a number of items to undertake a detailed assessment.

We use stratified sampling techniques in order to guarantee the appropriate sample representativeness for various segments and clusters of assets where such clustering applies, for example with towers that are geographically distributed in different provinces, different geo-

type (urban, rural etc), different types (monopole, guyed mast, lattice etc), different heights (5m-120m) etc.

The selection of individual assets for a detailed assessment is conducted by us, the consultants, and hence free from any bias by (local) management. Occasionally, an item in the sample may be exchanged for another, for example if for logistical reasons an inspection of the asset is disproportionately difficult.

Assertions

Following is a discussion as to the assertions of reporting that are covered by our procedures.

Existence and occurrence

Existence of assets, combined with their valuation, is certainly a key assertion for a valuation assignment. We test existence by inquiry of management, followed by physical inspection of tangible assets or inspection of documentary evidence in the case of intangible assets (licences). Direct confirmation is performed when inquiry and inspection of documentary evidence (e.g. purchase contracts) do not satisfactorily resolve any inconsistencies.

Rights and obligations

Beyond existence, rights and obligations linked to an asset are essential when determining fair values, both for tangible and intangible assets. We test this assertion by inquiries of management, inspection of documentary evidence, and, where appropriate, by inspection of the asset or related documentary evidence, or through confirmation with external parties, such as regulatory authorities, legal counsel, banks and other business counterparties.

Completeness

Our tests for the assertion of completeness are limited to reconciling reporting with the asset registers. A more comprehensive test for completeness would involve an explorative approach starting from assets observed in the field and tracing them to the asset registers. We would like to point out that, as far as assets are concerned, and in the context of the current scope which is evaluation (and not test of internal controls), the assertion of completeness is of secondary importance.

Classification

Classification of long-lived assets is of importance in order to assess if assets are properly accounted for and reported. Specifically, apart from being identified as non-current assets, productive non-current assets are to be distinguished from any asset that might be accounted for as “investment property” (IAS 40), being held but not put into core business use, or assets of operations to be discontinued (held for sale) that are to be reported separately, below the line, aggregated with other related assets and liabilities.

Regarding tangible fixed assets, any subsequent expenditure (e.g. maintenance/repair or improvement/extension/enhancement) has to be classified as either revenue expenditure or capital expenditure, with impacts on asset book value, depreciation, and operational expenses. We test the classification assertion by inquiries of management (including inquiry of general management as any business lines to be discontinued, held for disposal, in which case related assets and liabilities ought to be identified, “carved out”, and valued at net realisable value), inspection of assets or documentary evidence, and, in any doubtful cases, also by inspection of the asset and/or observation of operations.

Valuation

Combined with existence and rights and obligations, valuation is the key assertion covered by the scope of our engagement. Our assessment covers all items under the scope of our assignment that are material in value individually or as a pool. Apart from assessing a representative sample of assets, we pay attention to assets that warrant additional testing, as they have previously been re-valued, impaired, or are near the end of estimated lifetime. We use our technical expertise to judge the physical condition of tangible assets, but also potential obsolescence from a technological or business point of view, which extends to intangible assets as well. Our procedures comprise inquiries of management (senior and functional area) and responsible staff, inspection of assets and related documents (e.g. purchase contracts) and possibly observation, confirmation, and re-calculation (e.g. of depreciation/amortisation, net book values). Our report includes any findings as to the appropriateness of depreciation methods and related assumptions (accounting estimates) for tangible assets, and amortisation for intangibles.

Presentation

In addition to the assertions previously discussed, understandability is an important ingredient to financial reporting, also for the purposes of our analysis, even though our assignment is not primarily concerned with the reception of financial reporting by its users, but rather focused on source documents for valuation purposes. Anything related to presentation issues coming to our attention are nonetheless mentioned in our report.

VII. Conclusion and Impact for the client

Whereas under GAAP, the standard practice is to write down non-current assets when their value is impaired, **IFRS allows for a revaluation** to both sides, including marking non-current assets up to market. Re-valuing fixed assets as per IFRS can be key for companies with substantial assets on their books, especially when they have reasons to believe that the values reflected on the Balance Sheet do not reflect the true value of the assets.

In the project highlighted above, Investaura could identify **a few hundred millions of USD of revaluation in various asset classes**, with positive impacts both on the Balance Sheet and the Profit and Loss of the client.