

Compliance Today – June 2021

Evaluating the risk of substituting fixed-asset NBV for FMV

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Did you know that when comparing fair market value (FMV) to net book value (NBV), the difference in value could be as much as three times?

Medical equipment, fixed assets, and other tangible personal property (capital assets) are commonly a significant element in healthcare transactions. Capital assets represent a diverse range of tangible asset investment, from general office furniture, fixtures, and equipment used in a professional medical practice to sophisticated equipment and technology systems operated in hospitals, ambulatory surgery centers, imaging centers, and radiation therapy facilities.

When considering a potential transaction, the regulatory requirements with the Stark Law set a precedent of establishing FMV—defined as “opinion expressed in terms of money, at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts, as of a specific date”^[1]—related to all components of a healthcare business that have financial relationships with physicians. Additionally, broader implications of a transaction may warrant support, for all parties involved, that asset value is consistent with current market levels. Depending on the healthcare business and facility, capital assets are often a material component of value when determining the following:

- Capital asset FMV in support of compliance and financial planning for acquisitions, mergers, divestitures, and asset transfers;
- Capital asset FMV in support of a broader business valuation;
- Capital asset FMV in support of financial planning for federal tax purposes; and
- Capital asset FMV in support of liquidations, bankruptcies, and collateral audits.

Likewise, there are often considerations for post-transaction closing and preparation where capital assets may play another important role, including capital asset fair value (FV)—defined as “the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date”^[2]—in support of financial reporting standards and requirements.

Contrasting methodology and assumptions

Many healthcare businesses, financial and accounting management, business developers, third-party valuation specialists, and consultants often pursue the path of least resistance in determining capital asset value. In the absence of a qualified appraisal or valuation, a popular substitute of choice is NBV. NBV, which is not to be

confused with FMV or FV, is generally an accounting–derived indication of gross capital asset cost (acquisition cost) less accumulated depreciation and other accounting adjustments, such as bonus depreciation or impairment. In comparison, FMV is an amount, typically represented as a price, that an asset would sell for on an open market, between informed and willing buyers and sellers.

Beyond the obvious differences in the descriptions above, the accounting and valuation methodology applied is a critical factor in contrasting NBV and FMV. In other words, using NBV as a proxy for FMV could potentially misstate market value and warrant a closer look into the following.

Methodology (straight line/linear depreciation versus market approach)

The process of calculating NBV can involve several accounting techniques, conventions, charges, and adjustments, but one of the most common methods is straight–line depreciation. The straight–line method simply calculates linear depreciation based on the difference of acquisition cost less salvage value, over the accounting/book life (years). The process of estimating FMV typically involves one or more of the three common valuation approaches: cost approach, market approach, and income approach. The market approach generally supersedes the other valuation approaches for capital assets such as medical equipment because there is often an active secondary market. Where sufficient information for comparable medical equipment is identified in the secondary market, a valuation professional can establish a market value that inherently incorporates all forms of depreciation and obsolescence.

In summary, there could be major differences in the results when comparing market–derived value methodology and/or depreciation (market approach) with accounting methodology that assumes linear depreciation over a certain book life (straight–line depreciation).

Life assumptions (accounting life versus normal useful life)

Another consideration of NBV related to straight–line depreciation methods and other depreciable asset conventions is the determination of depreciable life, either by capital asset item and/or capital asset category. For example, a healthcare business may maintain a fixed asset ledger or depreciation schedule for tax reporting purposes. Under the direction of the Internal Revenue Service, depreciable tax life would be assigned according to the Modified Accelerated Cost Recovery System (MACRS). The MACRS tax lives range from five to seven years for most medical equipment and related capital asset categories. The accounting book life or tax life does not necessarily correlate to the normal useful life assumption that may be applied in the cost approach for valuation purposes. Useful life is defined as the “physical life, usually estimated in terms of years, that a new property will actually be used before it is retired from service. A property’s normal useful life relates to how long similar properties actually tend to be used, as opposed to the more theoretical economic life calculation of how long a property can profitably be used.”^[3] The normal useful life, or physical life before retirement, replacement, or material repair and upgrade, for comparable capital asset categories range from seven to 12 years.

From a cost approach valuation perspective, the difference of depreciable life, ranging from five to seven years compared to seven to 12 years, may understate FMV. It is also worth noting that in this example the fixed asset ledger or depreciation schedule may also include other accelerated depreciation adjustments (deductions and bonus depreciation) that would further lower NBV for income tax purposes.

End-of-life accounting treatment (salvage value versus FMV)

Continuing with the straight–line method and other comparable depreciation conventions used to calculate NBV, certain capital assets are fully depreciated once they meet or exceed their respective accounting life. The typical

result is NBV or salvage value equal to zero and possible retirement from fixed asset ledgers and balance sheets. Fully depreciated capital assets pose a serious challenge when relying on NBV as a proxy for FMV. A very common example that we have encountered while performing capital asset valuations is the accumulated depreciation of major movable medical equipment over five to seven years in a fixed asset ledger. In this example, a healthcare business may operate certain medical equipment (imaging equipment, surgery equipment, medical furniture) that was installed and capitalized five years ago and has now reached full depreciation of its cost basis. To assume that the corresponding NBV of zero in this example is representative of FMV would be no different than assuming a five-year-old magnetic resonance imaging machine has a market value of zero.

While the discussion above primarily highlights comparisons that may suggest that NBV is generally less than FMV, there are several factors, depending on the facts and circumstances, that could suggest the alternative. Circling back to methodology, standard accounting methodology and depreciation conventions do not consider current replacement cost new (RCN)—defined as the “current cost of a similar new property having the nearest equivalent utility as the property being appraised, as of a specific date”^[4]—and rely on the depreciation of a capital asset’s original cost basis. In contrast to a cost approach and estimates of RCN, the original cost basis of medical equipment and similar capital assets may not account for price erosion related to technological advancements, medical reimbursement, and other external factors. For those capital assets subject to price erosion, a valuation analysis based on estimates of RCN may result in value conclusions that are less than the capital asset’s NBV based on depreciated original cost basis.

Measuring the difference

To further illustrate the discussion points above, VMG has aggregated internal capital asset valuation project data for purposes of reviewing and quantifying the range of potential differences between capital asset NBV and FMV or FV. The source data and information for this review are based on more than 150 capital asset valuation projects, comprising approximately \$2 billion in appraised value. These valuation projects were prepared under an FMV or FV premise, and the subject facilities primarily included hospitals, ambulatory surgery centers, imaging centers, cancer/radiation therapy centers, and physician practices. The identified and valued subject capital assets consisted of major movable medical equipment; computer equipment and software; furniture, fixtures, and equipment; and leasehold improvements. No other capitalized fixed assets, such as land, site improvements, buildings, and building improvements, or capitalized intangible assets were included in this review.

The objective of the review was to measure the value difference between NBV and FMV or FV, generally represented as a “step-up” or “step-down.” Overall, the review indicated a weighted average step-up factor of approximately 1.20–1.25, when total appraised value is compared to NBV. The total step-up factor is heavily influenced by the subject hospitals based on respective appraised value; however, the following table summarizes weighted average step-up factors by facility type.

Facility Type (USD 000’s)	Project Count	Cost Basis	Net Book Value (A)	Value Indication (B)	Weighted Step-Up Factor (B/A)
Hospital	42	\$4,466,778	\$1,182,415	\$1,467,368	1.24
Imaging Center	12	\$231,347	\$82,757	\$102,191	1.23

ASC	54	\$170,003	\$42,756	\$64,161	1.50
Cancer Center	11	\$50,030	\$9,509	\$14,402	1.51
Physician Practice	18	\$40,472	\$7,416	\$14,631	1.97
Other	17	\$659,340	\$290,689	\$329,346	1.13
Grand Total	154	\$5,617,970	\$1,615,542	\$1,992,098	1.23

Table 1: Step-up factors by facility type

Another overriding consideration with the review and comparison in Table 1 is understanding what a step-down or step-up outcome means in actual dollars. Table 2 presents an implied step-up value range and average step-up value that is summarized by facility type and capital asset NBV.

Hospital NBV	Step-Up Factor Range		\$ Step-Up Range		\$ Step-Up Avg.
> \$20mm	1.14 to 1.60		\$5.7mm to \$28mm		\$14mm
\$10mm to 20mm	1.29 to 1.51		\$3.7mm to \$7.3mm		\$5.5mm
\$5mm to \$10mm	1.18 to 1.82		\$1mm to \$4.8mm		\$2.5mm
\$2mm to \$5mm	1.09 to 1.48		\$430k to \$2.1mm		\$1.3mm
<\$2mm	1.26 to 1.83		\$420k to \$1.1mm		\$800k
Imaging Center NBV	Step-Up Factor Range		\$ Step-Up Range		\$ Step-Up Avg.

\$1mm to \$2mm	1.29 to 1.51	\$300k to \$900k	\$500k
\$500k to \$1mm	1.22 to 2.28	\$170k to \$850k	\$400k
<\$500k	1.09 to 1.92	\$40k to \$150k	\$100k
ASC NBV	Step-Up Factor Range	\$ Step-Up Range	\$ Step-Up Avg.
\$500k to \$2mm	1.10 to 1.80	\$70k to \$670k	\$350k
<\$500k	1.37 to 3.09	\$60k to \$475k	\$300k

Table 2: Step-up value range by facility type

In summary, when comparing FMV or FV to NBV, the implied step-up factors ranged from 1.09 (relatively similar to NBV) to 3.09 (materially different at 3xNBV). There are several reasons that would explain the large range of step-up factors, such as facility type and related major movable equipment type, age basis/capitalized in-service date of the capital assets, and fixed asset accounting treatment (e.g., depreciation conventions, depreciable accounting life).

Managing the difference

In conclusion, there are no clear standards or rules of thumb when measuring the differences, step-up or step-down, or similarities between FMV or FV and NBV. Yet, despite the lack of clarity, ability to correlate value, and potential for misstated value, NBV is regularly endorsed as a substitute for market value.

A valuation opinion that considers appropriate valuation approaches and market-based information provides the diligence and support required to understand the consequential value of capital assets. A qualified opinion of value will avert potential mistakes, errors, and, ultimately, the risk of assuming NBV is a reasonable alternative to actual market value. VMG Health's Capital Asset Valuation team has more than 40 years of experience providing medical equipment valuation and consulting services. Furthermore, the Capital Asset Valuation team can assist in reviewing fixed asset data to evaluate a probable step-up or step-down and help determine materiality and an appropriate scope of valuation work.

Takeaways

- Capital assets are a significant investment for healthcare organizations and an important component of acquisitions, mergers, divestitures, compliance, and financial and accounting planning.
- Healthcare professionals, corporate, and consulting commonly adopt capital asset net book value (NBV) as

a proxy for fair market value (FMV).

- The accounting process used to determine NBV can drastically differ from the methodology applied to determine FMV.
- VMG's valuation data suggests that FMV could represent a 9%–300% difference when compared to NBV, depending on certain facts and circumstances.
- Consult a qualified valuation professional with relevant healthcare experience to determine potential risks and/or materiality of capital asset NBV and FMV.

1 “Definitions of Value Relating to MTS Assets,” American Society of Appraisers, accessed April 14, 2021, <https://bit.ly/3mLasLM>.

2 “IFRS 13 Fair Value Measurement,” International Financial Reporting Standards Foundation, accessed April 14, 2021, <https://bit.ly/3mMp3GQ>.

3 American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Fourth Edition* (Washington, DC: American Society of Appraisers, 2020).

4 “Definitions of Value Relating to MTS Assets,” American Society of Appraisers.

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