

Valuation and Allocation of Intangible Assets for Property Tax Compliance and Appeal Purposes

Business Valuation Resources Webinar

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Robert Reilly has been a managing director of Willamette Management Associates for 24 years. Willamette provides valuation, forensic analysis, and financial opinion services for transaction, financing, taxation, bankruptcy, litigation, and accounting purposes. Prior to Willamette, Robert was a valuation partner for the Deloitte & Touche accounting firm. Robert specializes in the valuation, damages, and transfer price analysis of intellectual property and other intangible assets. Robert has testified in both federal and state courts on numerous occasions on intangible asset valuation, damages, and transfer price matters.

Robert holds a BA degree in economics and an MBA degree in finance, both from Columbia University. He is a certified public accountant, accredited in business valuation, and certified in financial forensics. He is also a chartered financial analyst, chartered global management accountant, certified management accountant, certified business appraiser, certified valuation analyst, certified valuation consultant, certified review appraiser, certified real estate appraiser, and state-certified general appraiser.

Robert has served as a member of the AICPA forensic and valuation services executive committee (FVSEC), business valuation committee (BVC), and consulting services executive committee (CSEC). He is an inductee into the AICPA business valuation hall of fame.

Robert is the co-author of 12 valuation books including *Guide to Intangible Asset Valuation* (revised edition published in 2014 by the AICPA), *Practical Guide to Bankruptcy Valuation* (published in 2013 by the American Bankruptcy Institute), and *Guide to Property Tax Valuation*.



Discussion Outline

- What is—and what is not—an intangible asset
- Typical examples of intangible assets and intellectual property
- Common reasons to value intangible assets
- Intangible asset property taxation considerations
- Generally accepted intangible asset valuation approaches and methods
- Methods for intangible asset extraction from the total property value
- Intangible asset valuation illustrative examples
- Intangible asset extraction illustrative examples
- Summary and conclusion



Discussion Premise

- The webinar attendee is already familiar with generally accepted business valuation approaches, methods, and procedures.
- The attendee is already familiar with generally accepted intangible asset valuation approaches, methods, and procedures.
- The attendee may already value intangible assets for fair value accounting, income tax, gift and estate tax, and other purposes.
- The BV analyst wants to expand his or her practice to provide intangible asset valuation services to industrial and commercial clients for property tax compliance, appeal, or litigation purposes.
- Many commercial taxpayers are subject to state or local property tax based on the value of their real estate (RE) and tangible personal property (TPP).



Discussion Premise (cont.)

- Based on the valuation methods used, the assessor effectively values the going-concern business operations at the taxpayer property. This is often the case with utility-type companies, refinery and chemical processing facilities, mining operations, sports and entertainment facilities, and others.
- The analyst identifies the intangible assets owned and operated at the taxpayer facility.
- The taxpayer “extracts” the intangible asset value from the total property (often called “total unit”) assessment in order to conclude the remaining taxable asset value.
- So, the taxpayer, the assessor, or the taxpayer’s appraiser concludes the value of the total taxpayer facility.
- The BV analyst identifies and values the identifiable intangible assets that are exempt from state or local property taxation.



Discussion Premise (cont.)

- In the typical purchase accounting acquisition price allocation, the residual amount is the goodwill value. That formula is:
 - total business value (price)
 - real estate value
 - tangible personal property value
 - identifiable intangible assets value
 - = residual goodwill
- In the typical property tax valuation analysis, the residual amount is the (taxable) real estate and tangible personal property value. That formula is:
 - total business (unit) value
 - identifiable intangible assets value
 - = residual RE and TPP value (and some goodwill)
- In either case, the BV analyst values the identifiable intangible assets.



What is an Intangible Asset?

- It should be an asset, and it should be intangible
- FASB Statement of Financial Accounting Concepts No. 5 (CON 5) provides guidance as to what is an “asset”:
- It must provide probably future economic benefits
- The owner/operator must be able to receive the benefit and restrict others from access to the benefit
- The event that provides the right to receive the benefit has occurred
- “Intangible” means something that lacks physical substance
- For an intangible asset, “intangible” means that the economic benefit of the asset does not come from its physical substance
- Intangible asset value is based on the rights and privileges to which it entitles the owner/operator



Intangible Asset Attributes

- An intangible asset should have the following attributes
- It is subject to a specific identification and recognizable description
- It is subject to legal existence and legal protection
- It is subject to the rights of private ownership, and that private ownership should be transferable
- There is some tangible evidence or manifestation of the existence of the intangible asset
- It is created or it comes into existence at an identifiable time or as the result of an identifiable event
- It is subject to being destroyed or to a termination of existence at an identifiable time or as the result of an identifiable event
- There should be a specific bundle of legal rights associated with the intangible asset



Identifiable Intangible Assets

ASC Topic 805 Recognition Considerations

- FASB ASC 805-30-20 Glossary:

Identifiable Intangible Assets

The acquirer recognizes separately from goodwill the identifiable intangible assets acquired in a business combination. An intangible asset is identifiable if it meets either (1) the separability criterion or (2) the contractual-legal criterion described in the definition of “identifiable.”



Identifiable Intangible Assets

ASC Topic 805 Recognition Considerations

- FASB ASC 805-30-20 Glossary:

Identifiable

An asset is identifiable if it meets either of the following criteria:

1. It is separable, that is, capable of being separated or divided from the entity and sold, transferred, licensed, rented, or exchanged, either individually or together with a related contract, identifiable assets, or liability, regardless of whether the entity intends to do so.
2. It arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.



Identifiable Intangible Assets

ASC Topic 805 Recognition Considerations

- FASB ASC 805-30-20 Glossary:

Intangible Assets

Assets (not including financial assets) that lack physical substance. (For GAAP purposes, the term intangible assets refers to intangible assets other than goodwill.)



What is Not an Intangible Asset?

- There are intangible attributes or intangible influences that may affect the value of intangible assets
- These attributes or influences are not assets
- Examples include:
 1. High market share
 2. High profitability or high profit margin
 3. Lack of regulation
 4. A regulated (or protected) position
 5. Monopoly position (or barriers to entry)
 6. Market potential
 7. Breadth of customer appeal
 8. Mystique
 9. Heritage
 10. Competitive edge
 11. Life-cycle status
 12. Uniqueness
 13. Discount prices (or full prices)
 14. Positive image
 15. First to market
 16. Technological superiority
 17. Consumer confidence or trustworthiness
 18. Creativity
 19. High growth rate
 20. High return on investment
 21. Size
 22. Synergies
 23. Economies of scale
 24. Efficiencies
 25. Longevity



Examples of Intangible Assets: ASC 805

- Marketing-related intangible assets
 - Trademarks, trade names, service marks, collective marks, certification marks
 - Trade dress (unique color, shape, package design)
 - Newspaper mastheads
 - Internet domain names
 - Noncompetition agreements
- Customer-related intangible assets
 - Customer lists
 - Order or production backlog
 - Customer contracts and related customer relationships
 - Noncontractual customer relationships



Examples of Intangible Assets: ASC 805

- Artistic-related intangible assets
 - Plays, operas, and ballets
 - Books, magazines, newspapers, and other literary works
 - Musical works such as compositions, song lyrics, and advertising jingles
 - Pictures and photographs
 - Video and audiovisual material, including motion pictures or films, music videos, and television programs



Examples of Intangible Assets: ASC 805

- Contract-based intangible assets
 - Licensing, royalty, and standstill agreements
 - Advertising, construction, management, and service or supply contracts
 - Lease agreements (whether the acquiree is the lessee or the lessor)
 - Construction permits
 - Franchise agreements
 - Operating and broadcast rights
 - Servicing contracts such as mortgage servicing contracts
 - Employment contracts
 - Use rights such as drilling, water, air, timber cutting, and route authorities



Examples of Intangible Assets: ASC 805

- Technology-based intangible assets
 - Patented technology
 - Computer software and mask works
 - Unpatented technology
 - Databases, including title plants
 - Trade secrets, such as secret formulas, processes, and recipes



Examples of Intangible Assets: IRC 197

- Internal Revenue Code Section 197 intangible assets include:
 - Goodwill
 - Going concern value
 - Any of the following intangible items:
 - workforce in place including its composition and terms and conditions (contractual or otherwise) of its employment,
 - business books and records, operating systems, or any other information base (including lists or other information with respect to current or prospective customers),
 - any patent, copyright, formula, process, design, pattern, knowhow, format, or other similar item,
 - any customer-based intangible,
 - any supplier-based intangible, and
 - any other similar item.
 - Any license, permit, or other right granted by a governmental unit or an agency or instrumentality thereof



Examples of Intangible Assets: IRC 197

- Internal Revenue Code Section 197 intangible assets include: (cont.)
 - Any covenant not to compete (or other arrangement to the extent such arrangement has substantially the same effect as a covenant not to compete) entered into in connection with an acquisition (directly or indirectly) of an interest in a trade or business or substantial portion thereof
 - Any franchise, trademark, or trade name
 - Other Internal Revenue Code sections (e.g., 482 and 936) include other lists of intangible assets



Illustrative Industry: Health Care Industry

Examples of Typical Intangible Assets

- Medical, dental, and other professional licenses
- Certificates of need
- Patient relationships
- Patent files and records (manual and electronic)
- Electronic medical records computer software
- Medical and administrative staff trained and assembled workforce
- Office systems, procedures, and manuals
- Position or “station” procedures and manuals
- Facility operating licenses and permits
- Physician (and other professional) employment agreements
- Physician (and other professional) noncompetition agreements
- Executive (and other administrator) employment agreements
- Executive (and other administrator) noncompetition agreements
- Administrative services agreements
- Medical (and other professional) services agreements
- Facility or function management agreements
- Equipment and other supplier purchase agreements
- Service marks and service names
- Joint venture agreements
- A professional’s personal goodwill
- An entity’s institutional goodwill
- Equipment use or license agreements
- Medical (other professional) staff privileges
- Joint development or promotion agreements
- Affiliation agreements



Intangible Asset Recognition and Exemption in the Subject Taxing Jurisdiction

- Are intangible assets exempt from property taxation in your taxing jurisdiction?
 - The answer depends on the relevant statutory authority, judicial precedent, and administrative rulings
- What is an exempt intangible asset in your taxing jurisdiction?
 - The answer depends on the relevant statutory authority, judicial precedent, and administrative rulings
 - State and local taxing authorities are not bound by GAAP or federal income tax authority
- Does the assessor's property valuation include the value of intangible assets?
 - That depends on the property valuation approaches and methods used
 - That depends on the individual valuation variables selected



Intangible Asset Property Taxation Considerations

- Many jurisdictions exempt some or all intangible personal property from property taxation
- Intangible assets include intangible personal property and intangible real property
- To the extent that such exemptions apply, they typically apply to taxpayer properties that are assessed using either
 - summation (individual property) valuation methods or
 - unit (collective property) valuation methods
- Therefore, taxpayers (or their advisors) should:
 - determine if the assessor's property assessment includes the value of exempt intangible assets
 - identify the exempt intangible assets
 - value the exempt intangible assets
 - extract the value of the exempt intangible assets from the proposed property tax assessment



Types of Property that Encompass Intangible Assets in the Property Tax Assessment

- Some of the types of property that may encompass identifiable intangible assets include:
 - hospitality (e.g., hotels, restaurants)
 - health care (e.g., nursing homes, hospitals)
 - retail (e.g., regional shopping malls)
 - entertainment (e.g., theatres, stadiums)
 - sports (e.g., arenas, race tracks)
 - service properties (e.g., CATV, marinas)
 - utility properties (e.g., telecom, electric, water/wastewater)
 - transportation properties (e.g., railroads, airlines)
 - extraction (e.g., mines, quarries)
 - oil and gas (e.g., refineries, pipelines)
 - complex processing (e.g., chemical processing, food processing)



Illustrative Industry: Health Care Industry Properties that Include Intangible Assets in the Assessment

- Some of the types of health care industry property that may encompass identifiable intangible assets includes:
 - general medical and surgical hospitals
 - psychiatric and substance abuse hospitals
 - specialty hospitals
 - ambulatory surgical and emergency centers
 - family planning centers
 - medical and diagnostic laboratories
 - diagnostic imaging centers
 - ambulance services
 - nursing and residential care facilities
 - residential mental retardation, mental health, and substance abuse facilities
 - continuing care retirement communities
 - urgent medical care centers and clinics
 - dialysis centers
 - physician walk-in centers and clinics
 - HMO medical centers



Why These Types of Property May Encompass Intangible Assets in the Property Tax Assessment

- For these types of properties, it may be difficult for the assessor to separate the RE and TPP rental income from the business operating income
- These types of properties often sell as going-concern businesses
- Unless the assessor (or the taxpayer) makes an effort to extract the taxpayer intangible assets, property assessments based on income approach, market approach, and (to some extent) cost approach methods will capture:
 - real estate,
 - tangible personal property, and
 - intangible assets.



When Are Intangible Assets Included in the Property Assessment?

- For summation method property tax valuation, intangible assets may be included in the assessment
 - in the income approach when
 - either operating business income (and not property rental income) is used or operating business cost of capital (WACC) components are used in the yield cap method or in the direct cap method
 - in the sales comparison approach when
 - market-derived pricing metrics are extracted from the sales of operating business properties
 - in the cost approach when
 - there is economic obsolescence and
 - the economic obsolescence analysis does not assign a fair rate of return to the taxpayer intangible assets



When Are Intangible Assets Included in the Property Assessment? (cont.)

- For the unit method of property tax valuation, intangible assets may be included in the assessment
 - in the income approach when
 - either operating business income (and not property rental income) is used or operating business cost of capital (WACC) components are used in the yield cap method or in the direct cap method
 - in the sales comparison approach when
 - pricing multiples are extracted from the sales of going concern businesses
 - pricing multiples (or direct capitalization rates) are extracted from public company stock market data
 - in the cost approach when
 - there is economic obsolescence and
 - the economic obsolescence analysis does not assign a fair rate of return to the taxpayer intangible assets



Effect of Intangible Assets on Cost Approach Economic Obsolescence

- Hypothetical example taxpayer fact set
 - real estate (RE) and tangible personal property (TPP) – based on a cost approach RCNLD analysis \$10,000,000
 - intangible personal property (IPP) – based on a cost approach RCNLD analysis \$4,000,000
 - subject property business operating income \$1,000,000
 - required return on investment (ROI)/cost of capital 10%



Effect of Intangible Assets on Cost Approach Economic Obsolescence (cont.)

- Simplified test for identifying economic obsolescence—not considering the taxpayer intangible assets

required ROI 10%

actual ROI $\frac{\text{operating income}}{\text{RE} + \text{TPP RCNLD}} = \frac{\$1,000,000}{\$10,000,000} = \underline{10\%}$

income shortfall/economic obsolescence 0%

value of taxpayer RE and TPP \$10,000,000
(i.e., based on \$10,000,000 RCNLD)



Effect of Intangible Assets on Cost Approach Economic Obsolescence (cont.)

- Simplified test for identifying economic obsolescence—considering the taxpayer intangible assets

required ROI 10%

actual ROI $\frac{\text{operating income}}{\text{RE} + \text{TPP} + \text{IPP RCNLD}} = \frac{\$1,000,000}{\$14,000,000} = \underline{7.1\%}$

income shortfall/economic obsolescence = $(10\% - 7.1\%) \div 10\% = \underline{29\%}$

value of taxpayer RE and TPP \$7,100,000
(i.e., based on \$10,000,000 RCNLD – 29% economic obsolescence)



Generally Accepted Intangible Asset Valuation Approaches and Methods

- Cost approach methods
 - Reproduction cost new less depreciation method
 - Replacement cost new less depreciation method
 - Trended historical cost less depreciation method
- Market approach methods
 - Relief from royalty method
 - Comparable uncontrolled transactions method
 - Comparable profit margin method
- Income approach methods
 - Differential income (with/without) method
 - Incremental income method
 - Profit split method (or residual profit split method)
 - Residual (excess) income method



Assembled Workforce Illustrative Valuation Example – Cost Approach, RCNLD Method

- Illustrative fact set
 - The valuation date is 1/1/15
 - The Alpha Ambulatory Surgical Center property operates with 50 employees
 - There are three principal staff levels; let's call them physicians, clinical staff (e.g., nurses), and administrative staff
 - The assessor valued the Alpha property by capitalizing the \$3 million business operating income by a 10% direct cap rate to conclude a \$30 million property value
 - The assessment includes the value of intangible assets
 - The analyst will estimate the value of the Alpha assembled workforce to extract that value from the total assessment



Alpha Ambulatory Surgical Center Trained and Assembled Workforce, RCNLD Method as of 1/1/15

Assembled Workforce <u>Employee Component</u>	No. of <u>Employees</u>	Average <u>Salary</u>	Other Costs <u>Factor</u>	Full Absorption <u>Cost</u>	Percent of the Total Annual (Full Absorption) Cost Required to			% of Full Absorption Cost to Replace <u>Employees</u>	Average Replacement Cost New <u>Component</u>	Total Replacement Cost New <u>Component</u>
					<u>Recruit Employees</u>	<u>Hire Employees</u>	<u>Train Employees</u>			
Physicians	10	180,000	1.6	288,000	20%	20%	40%	80%	230,400	\$2,304,000
Clinical staff	20	60,000	1.5	90,000	10%	10%	30%	50%	45,000	900,000
Administrative staff	<u>20</u>	40,000	1.4	56,000	5%	10%	25%	40%	22,400	448,000
Total employees	50									
Total direct cost and indirect cost components										3,652,000
Add:										
Developer's profit cost component										
Developer's profit margin										<u>10%</u>
Developer's profit cost component (rounded)										<u>365,000</u>
Total direct costs and indirect costs plus developer's profit										4,017,000
Add:										
Entrepreneurial incentive										
Estimated total workforce replacement period				6 months						
Estimated average workforce replacement cost										
investment (i.e., \$4,017,000 total cost ÷ 2)				\$2,009,000						
Required annual return on investment				16%						
Required return on investment for 6 month replacement period				8%						
Entrepreneurial incentive (i.e., \$2,009,000 × 8%) (rounded)				\$161,000						
Total replacement cost new										<u>\$4,178,000</u>



Replacement Cost New – Direct Costs and Indirect Costs

- The RCN estimate considers the total compensation paid to each employee, labeled as “average salary.” These costs are direct costs.
- The RCN estimate considers all of the other expenses that the entity incurs related to each employee. These costs are indirect costs, including:
 1. payroll taxes
 2. employee benefits
 3. continuing professional education
 4. annual license and credential fees
 5. uniforms and lab coats
 6. employee parties, gifts, etc.



Replacement Cost New – Direct Costs and Indirect Costs (cont.)

- The total annual cost that the entity pays for an employee is called the full absorption cost. This full absorption cost includes:
 1. the compensation paid by the employer to the employee and
 2. the expenses paid by the employer to others so that the employee can perform his or her job.



Replacement Cost New – Direct Costs and Indirect Costs (cont.)

- The RCN includes all of the costs that the employer would incur to replace the current workforce with a brand new (but comparable) workforce. These costs may include:
 1. advertising for recruiting potential new employees to apply for each position
 2. interviewing expenses, background checks and other pre-employment tests, and placement fees incurred to have the new employee show up on day one
 3. on-the-job training in the particular position including first month training, first year training, and accumulated continuing education for long-term employees



Replacement Cost New – Direct Costs and Indirect Costs (cont.)

- There are two additional cost components to consider:
 1. developer's profit and
 2. entrepreneurial incentive.



Replacement Cost New – Developer's Profit and Entrepreneurial Incentive

- The developer's profit considers the profit margin that a management consulting, human resources outsourcing, or professional staffing firm would earn if a willing buyer retained such a firm to create the assembled workforce.
- Likewise, the operating business owners would expect to earn a profit on the sale of their internally developed assets to the willing buyer.
- There are several alternative procedures for estimating entrepreneurial incentive.
- A common procedure is to estimate the lost profits opportunity cost that the entity would experience during the intangible asset replacement period.



Replacement Cost New – Developer's Profit and Entrepreneurial Incentive (cont.)

- When using this procedure, the analyst should appropriately allocate the entity's overall profit to all of the intangible assets.
- Let's assume that the subject surgical center has five intangible assets. The entrepreneurial incentive should be allocated among the five intangible assets.
- Another common entrepreneurial profit measurement procedure is to calculate a fair rate of return on the total intangible asset cost components (i.e., direct costs, indirect costs, and developer's profit).
- The assembled workforce RCN is the sum of all four cost components.



Illustrative Depreciation Considerations

- In order to reach a value conclusion, the analyst next estimates the workforce RCNLD. As in any cost approach analysis, the analyst considers if there is any deterioration or obsolescence related to this intangible asset.
- From the valuation due diligence, the analyst learns the following facts:
 1. two of the entity's clinical staff are scheduled to retire in the next year or so
 2. one of the entity's admin staff is out on disability leave and is not expected to return to work
 3. the entity is overstaffed with regard to administrative staff; in addition to the admin on disability leave, any willing buyer would eliminate two of the administrative positions
 4. the entity has experienced very low turnover of the clinical staff; because of long tenure, these clinical staff earn an average annual salary of \$60,000; if the actual nurses were replaced, they would be replaced with adequately qualified (but less tenured) nurses earning an average annual salary of \$50,000



Trained and Assembled Workforce Physical Deterioration as of 1/1/15

<u>Workforce Components</u>	<u>No. of Employees</u>	<u>Average Direct and Indirect Replacement Cost New</u>	<u>Total Direct and Indirect Replacement Cost New</u>	<u>Developer's Profit and Entrepreneurial Incentive Cost Components</u>	<u>Total Replacement Cost New</u>	<u>Percent Depreciation</u>	<u>Accumulated Depreciation</u>
Clinical Staff	2	\$45,000	\$90,000	\$13,000	\$103,000	100%	\$103,000
Administrative Staff	1	22,400	22,400	<u>3,200</u>	<u>25,600</u>	100%	<u>25,600</u>
Total				16,200	128,600		<u>\$128,600</u>



Trained and Assembled Workforce Functional Obsolescence as of 1/1/15

<u>Workforce Components</u>	<u>No. of Employees</u>	<u>Excess Direct and Indirect Replacement Cost New</u>	<u>Excess Developer's Profit and Entrepreneurial Incentive Cost Components</u>	<u>Excess Total Replacement Cost New</u>	<u>Functional Obsolescence</u>
Clinical Staff	18	\$7,500	\$1,100	\$8,600	\$154,800
Administrative Staff	2	22,400	3,200	25,600	<u>51,200</u>
Total					<u>\$206,000</u>



Alpha Ambulatory Surgical Center Trained and Assembled Workforce RCNLD Method as of 1/1/15

<u>Cost Approach Analysis</u>	<u>Cost Component</u>
Replacement cost new (all employees)	\$4,178,000
Less: Physical deterioration allowance (inadequate staff)	128,600
Less: Functional obsolescence allowance (superadequate staff)	<u>206,000</u>
Equals: Replacement cost new less depreciation	<u>\$3,843,400</u>

- This RCNLD conclusion indicates what a willing buyer would pay to a willing seller for this surgical center assembled workforce, assuming that there is no economic obsolescence related to this intangible asset.



Trained and Assembled Workforce Economic Obsolescence as of 1/1/15

Selected Economic Obsolescence Data As of December 31, 2014

<u>Item</u>	<u>Financial or Operational Performance Metric</u>	<u>LTM Ended 12/31/14</u>	<u>Benchmark Measure</u>	<u>LTM Percent Shortfall</u>	<u>Benchmark Comparison Reference Source</u>
1	Average collected revenue per physician	\$500,000	\$620,000	19%	2014 industry average
2	Number of support staff per physician	4.0	3.2	25%	2014 industry average
3	Average salary per physician	\$180,000	\$220,000	18%	2014 industry average
4	Annual growth rate in the center revenue	3.5%	4.5%	22%	actual subject entity average for 2010-14
5	Profit contribution per physician (pre-owner comp)	\$200,000	\$280,000	29%	2014 industry average
6	Profit contribution margin (pre-owner comp)	59%	67%	12%	2014 industry average
7	Average patients seen per physician per day	8.2	10	18%	the 2014 subject entity budget
8	Average revenue billed per patient procedure	\$8,000	\$10,000	20%	the 2014 subject entity budget
9	Return on the surgical center average assets	10%	12.5%	20%	actual subject entity average for 2010-14
10	Return on the surgical center average equity	20%	25%	20%	actual subject entity average for 2010-14

LTM benchmark measures percent shortfall:

– mean	20.3%
– median	20.0%
– mode	20.0%
– trimmed mean	20.3%
– trimmed median	<u>20.0%</u>
Economic obsolescence indication	<u>20%</u>



Trained and Assembled Workforce Economic Obsolescence Allowance as of 1/1/15

	<u>Cost Approach Analysis</u>	<u>Cost Component</u>
	Replacement cost new less depreciation	\$3,843,400
Times:	Selected economic obsolescence percent	<u>20%</u>
Equals:	Economic obsolescence allowance (rounded)	<u>\$768,700</u>



Alpha Ambulatory Surgical Center
 Trained and Assembled Workforce
 Cost Approach Valuation Synthesis and Conclusion as of 1/1/15

Cost Approach Analysis	Cost Component
Replacement cost new	\$4,178,000
less: Physical deterioration allowance	128,600
Less: Functional obsolescence allowance	206,000
Less: Economic obsolescence allowance	<u>768,700</u>
Equals: Replacement cost new less depreciation	<u>3,074,700</u>
Assembled workforce value (rounded)	<u><u>\$3,100,000</u></u>

- This \$3.1 million intangible asset value would be extracted from the \$30 million surgical center property assessed value.



Beta Nursing Home Client Relationships

Illustrative Valuation Example

Income Approach – Yield Capitalization Method

- Illustrative fact set
 - The assessor valued all of the Beta Nursing Home RE and TPP at \$10 million using a unit valuation method, based on various valuation pricing multiples extracted from the sales of other going-concern nursing homes
 - The analyst will estimate the value of the Beta residential client relationships in order to extract that value from the total property assessment
 - The assessment includes the value of intangible assets
 - The analyst selected the income approach
 - The analyst selected the multiperiod excess earnings method (MEEM)
 - The valuation date is 1/1/15



Beta Nursing Home
Residential Client Relationships Valuation
Selected Valuation Variables
As of January 1, 2015

Projection Variable	Selected Valuation Variable Basis
Total Beta 2015 budgeted revenue	\$6,000,000
Budgeted residential patient revenue	\$4,000,000
Budgeted hospice care patient revenue	\$2,000,000
Annual revenue growth rates	Prepared in consultation with Beta management
Residential client attrition rate	Based on average of actual monthly attrition rates for 2011-2014
Remaining useful life	Years until the remaining revenue is less than 5% of current revenue
EBITDA margin %	Based on average of 2011-2014, normalized to exclude the new customer selling expense
Depreciation expense	15% of revenue, based on average of 2011-2014
Amortization expense	5% of revenue, based on average of 2011-2014
Income tax rate	Market participant effective income tax rate



Projection Variable	Selected Valuation Variable Basis
Contributory asset charges:	
Working capital charge	Working capital balance = 10% of revenue, based on 2011-2014 average; the capital charge % = WACC
Tangible asset charge	Tangible asset value = \$4,800,000 based on RCNLD analysis of real estate and tangible personal property; \$4,800,000 = 80% of total revenue; the capital charge % = WACC
Intangible asset charge	Intangible asset value = \$2,000,000, based on appraisals of software, trademarks, technology, and workforce; the capital charge % = WACC; the \$200,000 capital charge = 3% of total revenue
Capital expenditures	capx = 105% of depreciation expense, based on Beta management projections; this is consistent with historical 10-year average
Working capital change	Based on projected annual change in working capital balance; the balance is based on 10% of remaining residential client revenue
Discount period	Midyear discounting convention is assumed
Discount rate	Based on the Beta WACC



Beta Nursing Home
Residential Client Relationships Valuation
As of January 1, 2015

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Total residential client revenue	\$4,000,000	4,160,000	4,326,400	4,499,456	4,679,434	4,866,612	5,012,610	5,162,988	5,317,878	5,477,414	5,641,737
Residential client revenue growth rate		4%	4%	4%	4%	4%	3%	3%	3%	3%	3%
Residential client attrition rate	24%	24%	24%	24%	24%	24%	24%	24%	24%	24%	24%
Remaining client revenue %	76.0%	57.8%	43.9%	33.4%	25.5%	19.3%	14.7%	11.1%	8.5%	6.4%	4.9%
Remaining client revenue	3,040,000	2,404,482	1,899,290	1,502,818	1,188,576	939,256	736,854	573,092	452,020	350,555	276,445
Normalized EBITDA margin %	<u>60%</u>	<u>60%</u>	<u>60%</u>	<u>60%</u>	<u>60%</u>	<u>60%</u>	<u>60%</u>	<u>60%</u>	<u>60%</u>	<u>60%</u>	<u>60%</u>
EBITDA	1,824,000	1,442,688	1,139,574	901,691	713,146	563,554	442,112	343,855	271,212	210,333	165,867
Depreciation/amortization expense (% of revenue)	<u>20%</u>	<u>20%</u>	<u>20%</u>	<u>20%</u>	<u>20%</u>	<u>20%</u>	<u>20%</u>	<u>20%</u>	<u>20%</u>	<u>20%</u>	<u>20%</u>
Depreciation/amortization expense	608,000	480,896	379,858	300,564	237,715	187,851	147,371	114,618	90,404	70,111	55,289
EBIT	1,216,000	961,792	759,716	601,127	475,431	375,703	294,741	229,237	180,808	140,222	110,578
- Income taxes @ 40%	<u>486,400</u>	<u>384,717</u>	<u>303,886</u>	<u>240,451</u>	<u>190,172</u>	<u>150,281</u>	<u>117,896</u>	<u>91,695</u>	<u>72,323</u>	<u>56,089</u>	<u>44,231</u>
After-tax operating income	729,600	577,075	455,830	360,676	285,259	225,422	176,845	137,542	108,485	84,133	66,347
Less: Contributory asset charges											
- Working capital asset charge	30,400	24,045	18,993	15,028	11,886	9,393	7,369	5,731	4,528	3,506	2,764
- Tangible asset capital charge	243,200	192,358	151,943	120,225	95,086	75,141	58,948	45,847	36,162	28,044	22,116
- Intangible asset capital charge	<u>91,200</u>	<u>72,134</u>	<u>56,979</u>	<u>45,085</u>	<u>35,657</u>	<u>28,178</u>	<u>22,106</u>	<u>17,193</u>	<u>13,561</u>	<u>10,517</u>	<u>8,293</u>
Total capital charge	364,800	288,537	227,915	180,338	142,629	112,712	88,423	68,771	54,243	42,067	33,173
+ Depreciation/amortization expense	608,000	480,896	379,858	300,564	237,715	187,851	147,371	114,618	90,404	70,111	55,289
- Capital expenditures	478,800	378,706	299,139	236,694	187,200	147,932	116,054	90,262	71,193	55,212	43,540
+ Working capital decrease	<u>(96,000)</u>	<u>(63,552)</u>	<u>(50,519)</u>	<u>(39,242)</u>	<u>(31,425)</u>	<u>(24,931)</u>	<u>(20,241)</u>	<u>(16,376)</u>	<u>(12,107)</u>	<u>(10,146)</u>	<u>(7,412)</u>
= Net cash flow from remaining clients	590,000	454,280	359,153	283,455	224,570	177,560	139,980	109,503	85,560	67,111	52,335
Discount period	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5
Present value factor @ 10%	<u>0.9524</u>	<u>0.8658</u>	<u>0.7871</u>	<u>0.7155</u>	<u>0.6505</u>	<u>0.5914</u>	<u>0.5376</u>	<u>0.4887</u>	<u>0.4443</u>	<u>0.4039</u>	<u>0.3672</u>
Present value of remaining clients cash flow	561,916	393,316	282,689	202,812	146,083	105,009	75,253	53,514	38,014	27,106	19,217
Total present value of remaining clients cash flow	1,904,929										

Value of residential clients relationships (rounded) \$1,900,000



Beta Nursing Home
Residential Client Relationships Valuation
Residential Client Turnover Rates

Month	2011	2012	2013	2014
January	2.46%	2.08%	2.00%	2.10%
February	1.76%	1.93%	2.02%	1.94%
March	2.05%	2.04%	2.05%	2.08%
April	1.91%	2.01%	2.01%	2.08%
May	2.06%	1.98%	2.10%	1.95%
June	1.95%	1.99%	2.09%	2.00%
July	1.92%	2.00%	2.00%	1.78%
August	2.26%	2.05%	2.03%	2.00%
September	1.96%	2.02%	2.09%	2.11%
October	2.20%	2.10%	2.01%	2.03%
November	1.87%	2.00%	1.93%	1.86%
December	<u>1.56%</u>	<u>2.01%</u>	<u>1.90%</u>	<u>1.85%</u>
Annual Client Turnover Rate	24.0%	24.2%	24.2%	23.8%



Beta Nursing Home
Residential Client Relationships Valuation
Normalized EBITDA Margin Analysis

	2010	2011	2012	2013	2014	Mean	Median	Selected
Reported EBITDA margin %	58.2	58.0	57.6	58.2	58.0	58.0	58.0	
+ New client selling expense %	<u>2.0</u>	<u>2.2</u>	<u>2.4</u>	<u>2.2</u>	<u>2.0</u>	<u>2.2</u>	<u>2.2</u>	
= Normalized EBITDA margin %	60.2	60.2	60.0	60.4	60.0	60.2	60.2	60%

The new client selling expense includes (1) advertising directed to new residential clients and (2) new residential client promotion expense. These selling expenses are not necessary to retain the current population of residential clients.



Beta Nursing Home
 Depreciation/Amortization Expense
 Capital Expenditures
 (\$s)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Remaining client revenue	3,040,000	2,404,480	1,899,290	1,502,818	1,188,576	939,256	736,854	573,092	452,020	350,555	276,445
Depreciation expense (% of revenue)	<u>15%</u>	<u>15%</u>	<u>15%</u>	<u>15%</u>	<u>15%</u>	<u>15%</u>	<u>15%</u>	<u>15%</u>	<u>15%</u>	<u>15%</u>	<u>15%</u>
Depreciation expense	456,000	360,672	284,894	225,423	178,286	140,888	110,528	85,964	67,803	52,593	41,467
Amortization expense (% of revenue)	<u>5%</u>	<u>5%</u>	<u>5%</u>	<u>5%</u>	<u>5%</u>	<u>5%</u>	<u>5%</u>	<u>5%</u>	<u>5%</u>	<u>5%</u>	<u>5%</u>
Amortization expense	<u>152,100</u>	<u>120,224</u>	<u>94,965</u>	<u>75,141</u>	<u>59,429</u>	<u>46,963</u>	<u>36,843</u>	<u>28,655</u>	<u>22,601</u>	<u>17,528</u>	<u>13,822</u>
Depreciation & amortization expense	608,000	480,896	379,859	300,564	23,775	187,851	147,371	114,619	90,404	70,111	55,289
Capx - as % of depreciation expense	<u>105%</u>	<u>105%</u>	<u>105%</u>	<u>105%</u>	<u>105%</u>	<u>105%</u>	<u>105%</u>	<u>105%</u>	<u>105%</u>	<u>105%</u>	<u>105%</u>
Capx	478,800	378,706	299,139	236,694	187,200	147,932	116,054	90,262	71,193	55,212	43,540



Beta Nursing Home
Contributory Asset Charge
Intangible Assets
(\$s)

Contributory Intangible Assets	Value
Computer software	500,000
Trademarks and trade names	500,000
Proprietary technology (procedures)	500,000
Assembled workforce	500,000
Total	2,000,000
<u>Contributory Intangible Asset Capital Charge</u>	
Contributory intangible assets	2,000,000
Return on contributory assets	10%
Contributory intangible asset capital charge	200,000
÷ Total Beta Nursing Home revenue	6,000,000
= Contributory intangible asset capital charge as a % of Beta total revenue	3%



Beta Residential Client Relationships—Note Regarding Hospice Care Patient Relationships

- The analyst also valued the Beta hospice care client relationships (that are budgeted to generate \$2,000,000 in next year revenue).
- The analyst used the same income approach and the same MEEM method.
- Due to time constraints, this analysis is not presented here.
- The analyst concluded a value for the hospice care client relationships to be \$800,000.



Beta Nursing Home Residential Client Relationships Illustrative Example - Conclusion

- The assessor valued the total Beta operating property at \$10,000,000.
- The analyst valued the residential client relationships at \$1,900,000, the hospice patient relationships at \$800,000, and the other identifiable intangible assets at \$2,000,000
- The taxpayer will extract the \$4,700,000 total intangible asset value from the \$10,000,000 proposed assessment, to conclude a value of the taxable RE and TPP of \$5,300,000
- We recall the analyst concluded that the RCNLD of the RE and TPP was \$4,800,000
- The difference between the \$4,800,000 RE and TPP RCNLD and the \$5,300,000 residual from total Beta property assessment (i.e., \$500,000) is probably the Beta Nursing Home goodwill/going-concern value.



Intangible Asset Extraction Procedures

- There are two common procedures to extract intangible asset values from the total operating property values
 - Direct subtraction method
 - Transfer price (income allocation) method
- The direct subtraction method is easiest to understand:
 - Synthesized total value of taxpayer operating property (based on any/all valuation approaches)
 - minus: Synthesized value of all identifiable intangible assets (based on any/all valuation approaches)
 - equals: Residual value of RE and TPP (and possibly some operating business goodwill/going concern value)



Intangible Asset Extraction Procedures (cont.)

- The transfer price (income allocation) method assumes the following:
 - The subject operating entity is split into two separate entities:
 - One operating company entity operates the subject RE and TPP
 - One holding company entity holds the subject intangible assets and licenses those intangible assets (at an arm's-length price—or ALP) to the operating company



Intangible Asset Extraction Procedures (cont.)

- Let's construct a simple hypothetical example:
 - The Gamma General Hospital ("Gamma") is assessed at \$100,000,000
 - The assessor used several income approach methods and sales comparison approach methods to reach that assessment
 - Internally developed computer software is an important intangible asset at the Gamma hospital
 - Intangible assets are exempt from property taxation in the subject jurisdiction
 - The analyst values the Gamma computer software on the next slide
 - To simplify the example, let's ignore all other exempt intangible assets



Gamma General Hospital Computer Software Valuation

Cost Approach – Replacement Cost New less Depreciation Method

<u>Computer Software System</u>	Estimated Software Development Development Effort—in <u>Person Months</u>	Elapsed Time to Develop Replacement Software—in <u>Calendar Months</u>	Full Absorption Cost per Person <u>Month</u>	Indicated RCNLD Method Component <u>\$000</u>
AS/400	453	29	\$14,585	6,610
Hospital operations	99	25	14,585	1,430
Tandem	330	16	14,585	4,820
Unisys	123	5	14,585	1,790
Pioneer	<u>181</u>	41	14,585	<u>2,640</u>
Total direct and indirect costs component (rounded)	1,186	24		17,290
Plus: Developer's profit, at 16%				<u>2,770</u>
Subtotal				20,060
Plus: Entrepreneurial incentive, based on 2 years lost income				<u>3,120</u>
Equals: Total replacement cost new				23,180
Less: Functional obsolescence, based on software replacement plans				<u>3,690</u>
Equals: Subtotal				19,490
Less: Economic obsolescence, at 19%, based on income shortfall analysis				<u>3,700</u>
Equals: Computer software RCNLD				<u>15,790</u>
Computer software value (rounded)				<u>\$16,000</u>



Gamma General Hospital Extraction of Intangible Asset Value – Direct Subtraction

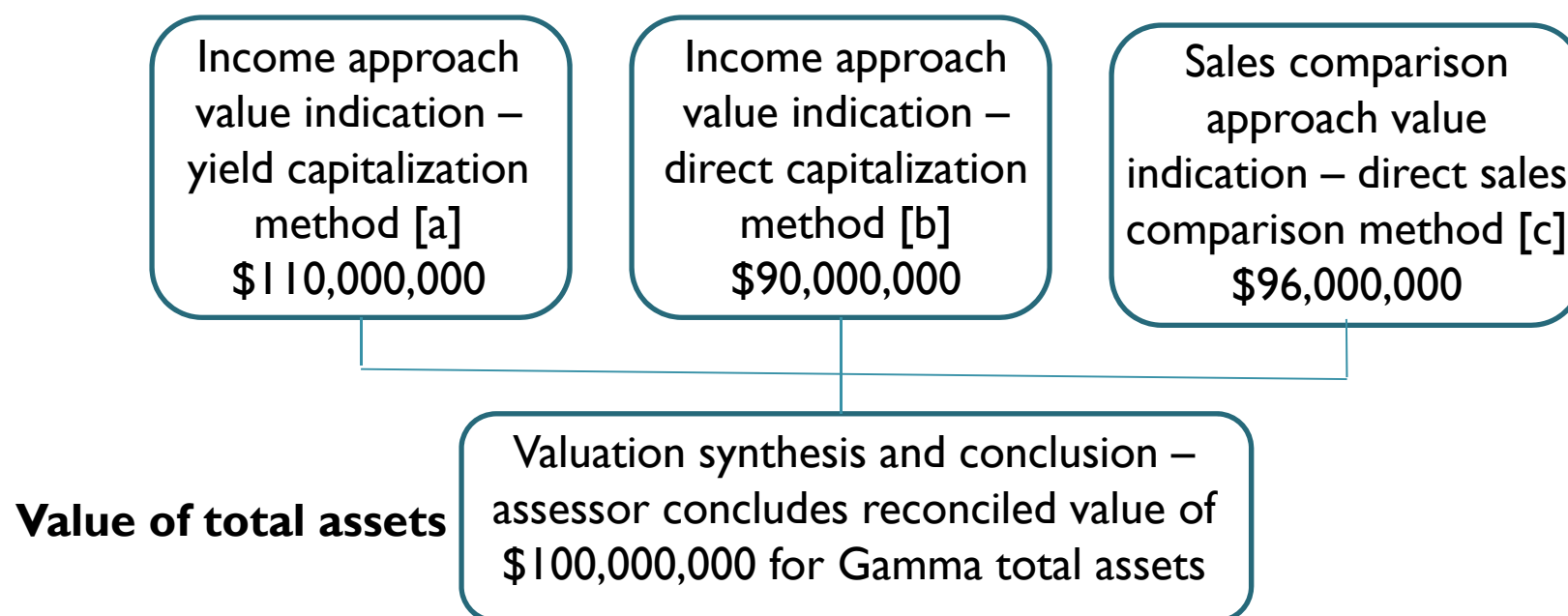
- Direct subtraction analysis

	\$100,000,000	synthesized value of Gamma hospital total operating assets
less:	\$16,000,000	value of Gamma hospital computer software
equals:	\$84,000,000	residual value of Gamma hospital RE and TPP (assuming no other intangible assets)



Gamma Hospital Extract of Intangible Asset Value – Direct Subtraction (cont.)

- Assessor valuation of Gamma hospital total assets



Notes:

[a] Based on present value of Gamma hospital total net cash flow

[b] Based on direct capitalization of Gamma hospital total net operating income

[c] Based on comparable sales of other operating hospitals and market-derived income pricing multiples



Gamma General Hospital Extract of Intangible Asset Value – Direct Subtraction (cont.)

minus

- Valuation of Gamma hospital intangible assets

– Value of intangible assets

Cost approach value indication –
RCNLD method
\$16,000,000

- Valuation of Gamma hospital assessable RE and TPP

= Value of tangible assets

equals

Valuation synthesis and conclusion –
residual value of \$84,000,000
for Gamma assessable assets

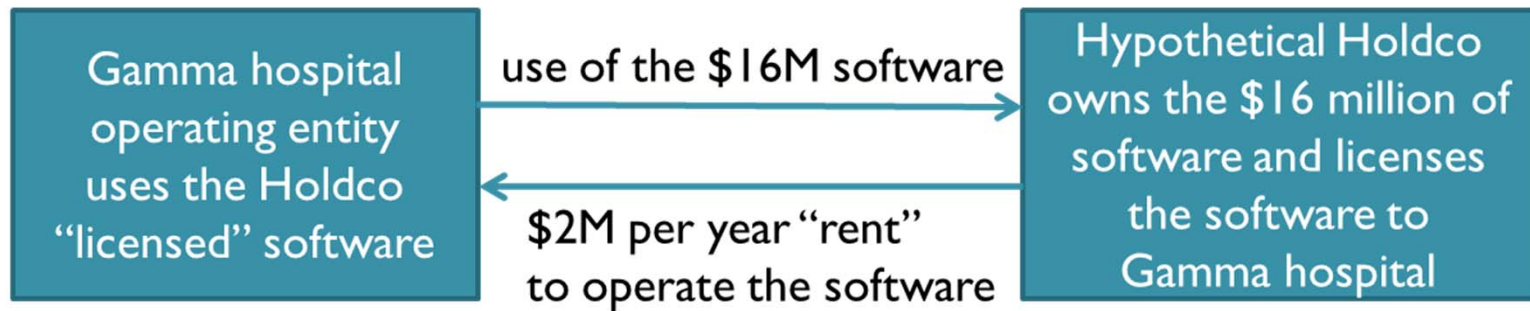


Gamma General Hospital Extraction of Intangible Asset Value – Income Allocation

- Transfer price (income allocation)
 1. \$16,000,000 value of Gamma computer software
 - x12.5% fair rate of return on Gamma computer software
 - \$2,000,000 annual transfer price (a.k.a. capital charge or license royalty) for the use of the computer software
 2. The fair return can be the taxpayer WACC or some other industry/taxpayer ROI measure
 3. The \$2,000,000 transfer price (or economic rent) is subtracted from the Gamma hospital net operating income or net cash flow included in any income approach analysis or any sales comparison approach analysis
 4. The Gamma income is reduced by the “rent” of the software, so the Gamma value is reduced by the value of the software
 5. This transfer price is illustrated on the following slide



Gamma General Hospital Extraction of Intangible Asset Value – Income Allocation (cont.)



hypothetical Gamma operating hospital owns all of the taxable RE and TPP only

hypothetical intangible asset holding company owns (and licenses) all of the exempt intangible assets



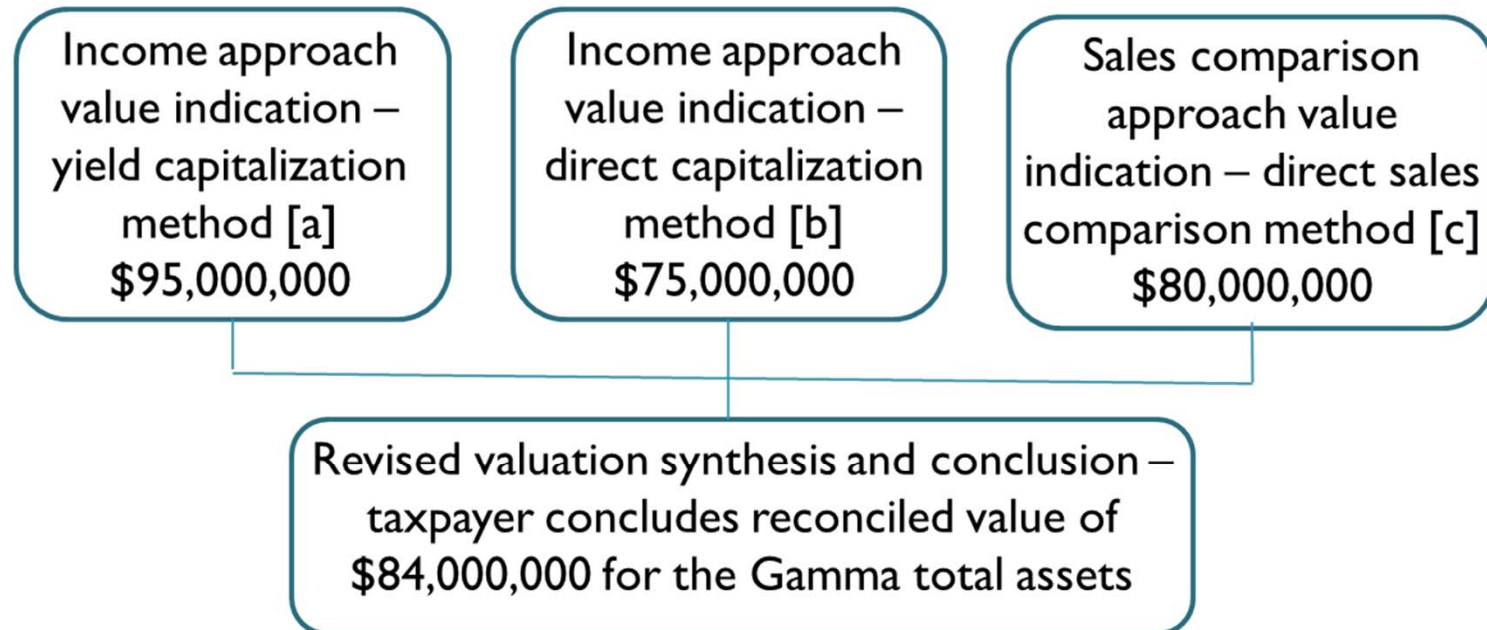
Gamma General Hospital Extraction of Intangible Asset Value – Income Allocation

- Based on “rent” of software from the hypothetical intangible asset holding company, the Gamma hospital income (e.g., net cash flow, net operating income, EBIT, or EBITDA) is reduced by \$2,000,000 per year.
- The taxpayer applies the same Gamma total property valuation approaches and methods that the assessor used, but with lower (by \$2,000,000) income metrics.



Gamma General Hospital Extraction of Intangible Asset Value – Income Allocation (cont.)

- Revised valuation of Gamma hospital total assets



Notes:

[a] Excludes net cash flow related to fair return on Gamma hospital software.

[b] Excludes net operating income related to fair return on Gamma hospital software.

[c] Excludes EBITDA related to fair return on Gamma hospital software.



Gamma General Hospital Extraction of Intangible Asset Value – Income Allocation (cont.)

- No additional adjustments are needed to extract the Gamma intangible asset value from the total Gamma asset value, because the intangible asset-related income is already excluded from the total property value.



Intangible Assets and Property Tax – Final Considerations

- When the operating property assessment is based on business operating income, operating business discount/capitalization rates, or operating business sale pricing multiples, then extract the value of the subject property identifiable intangible assets by either
 - the direct subtraction method or
 - the transfer price (income allocation) method
- To avoid the intangible asset extraction issue, value the subject operating property so as to exclude the value of intangible assets.



Intangible Assets and Property Tax – Final Considerations (cont.)

- To exclude intangible assets in the total property valuation, be sure to use:
 - property rental income only (not operating business income)
 - property-specific discount/capitalization rates (not operating business discount/capitalization rates)
 - sales of in-place (but not in-use) properties only (i.e., nonoperating hospitals, clinics, nursing homes, surgical centers, dialysis centers, etc.)
- Alternatively, to exclude intangible assets in the property valuation:
 - rely on cost approach valuation methods—and include RE and TPP only in the cost components analysis—but be careful to consider the value of the taxpayer intangible assets in any economic obsolescence analysis



Intangible Assets and Property Tax – Final Considerations (cont.)

- BV analysts can use the same skills used to value intangible assets for fair value accounting purposes to assist industrial and commercial taxpayers with property tax compliance, appeals, and litigation.
- The assessor, the client, or the client's appraiser concludes the total value of the taxpayer property (or unit).
- When the property encompasses a going-concern business (such as a refinery, racetrack, hospital, casino, etc.) and the property value is based on business operating income, the BV analyst can identify, value, and extract the exempt intangible assets.



Summary and Conclusion

- What is—and what is not—and intangible asset
- Examples of intangible assets and intellectual property
- Common reasons to value intangible assets
- Intangible asset property taxation considerations
- Generally accepted intangible asset valuation approaches and methods
- Methods for intangible asset extraction from the total property value
- Intangible asset valuation illustrative examples
- Intangible asset extraction illustrative examples
- Questions and discussion

