NACVA and the CTI's

Exit Planning, Transaction Advisory Services, and Healthcare Valuation Conference

November 16–18, San Diego, CA

Implications of the Highest and Best Use Principle in the Valuation of Healthcare Enterprises, Assets, and Services

Presenters

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This session presents an exposure draft of a paper to be published in a forthcoming peer-reviewed journal - Spring 2016

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Presenter Bio

Todd A. Zigrang, MBA, MHA, FACHE, ASA is the President of **HEALTH CAPITAL CONSULTANTS** (HCC), where he focuses on the areas of valuation and financial analysis for hospitals, physician practices, and other healthcare enterprises. Mr. Zigrang has over 20 years of experience providing valuation, financial, transaction and strategic advisory services nationwide in over 1,000 transactions and joint ventures involving acute care hospitals and health systems; physician practices; ambulatory surgery centers; diagnostic imaging centers; accountable care organizations, managed care organizations, and other third-party payors; dialysis centers; home health agencies; long-term care facilities; and, numerous other ancillary healthcare service businesses. Mr. Zigrang is also considered an expert in the field of healthcare compensation for physicians, executives and other professionals.

Mr. Zigrang is the co-author of the soon-to-be released "*Adviser's Guide to Healthcare – 2nd Edition*" [2015 – AICPA], numerous chapters in legal treatises and anthologies, and peer-reviewed and industry articles such as: *The Accountant's Business Manual* (AICPA); *Valuing Professional Practices and Licenses* (Aspen Publishers); *Valuation Strategies*; *Business Appraisal Practice*; and, *NACVA QuickRead*. Additionally, Mr. Zigrang has served as faculty before professional and trade associations such as the American Bar Association (ABA); the National Association of Certified Valuators and Analysts (NACVA); the Physician Hospitals of America (PHA); the Institute of Business Appraisers (IBA); the Healthcare Financial Management Association (HFMA); and, the CPA Leadership Institute.

Presenter Bio

Robert James Cimasi, MHA, ASA, MCBA, FRICS, CVA, CM&AA, serves as Chief Executive Officer of **HEALTH CAPITAL CONSULTANTS** (HCC), a nationally recognized healthcare financial and economic consulting firm headquartered in St. Louis, MO, serving clients in 49 states since 1993. Mr. Cimasi has over thirty years of experience in serving clients, with a professional focus on the financial and economic aspects of healthcare service sector entities including valuation consulting and capital formation services; healthcare industry transactions, including joint ventures, mergers, acquisitions, and divestitures; litigation support & expert testimony; and certificate-of-need and other regulatory and policy planning consulting.

Mr. Cimasi is a nationally known speaker on healthcare industry topics and the author of numerous peer-reviewed articles, chapters in legal treatises and anthologies, and nationally published books, including: "*Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services*" [2014 - John Wiley & Sons]; "*Accountable Care Organizations: Value Metrics and Capital Formation*" [2013 - Taylor & Francis]; and, his most recent book, the soon-to-be released "*Adviser's Guide to Healthcare – 2nd Edition*" [2015 - AICPA].

In 2006, Mr. Cimasi was honored with the prestigious "*Shannon Pratt Award in Business Valuation*" conferred by the Institute of Business Appraisers (IBA). He serves on the Editorial Board of the Business Appraisals Practice of the IBA, of which he is a member of the College of Fellows; and, as *Chair Emeritus* of the American Society of Appraisers Healthcare Special Interest Group (ASA HSIG). In 2011, he was named a Fellow of the Royal Institution of Chartered Surveyors (RICS).

Overview

- Introduction
- Economic Principles
- Resource-Based View of an Enterprise
- Principle of Highest and Best Use
- Standard of Value and Premise of Value
- Types of Economic Benefits
- Implications of the Principle of Highest and Best Use on the Premise of Value Selected
- Case Studies: Applying the Principle of Highest and Best Use
- Conclusion

Introduction

- There has been recent controversy in determining the *"correct"* methodology for valuing healthcare enterprises, assets, and services.
- Prior to determining a valuation methodology, a valuation analyst must first determine the ***highest and best use*** of the *resources* controlled by the enterprise.
- Based on the determination of the *highest and best use* of the resources, the valuation analyst may then utilize the most efficacious methodology to value the healthcare enterprises, assets, and/or services at issue.

Economic Principles

Scarcity

- *Scarcity* and *utility* underlie the entire valuation endeavor
- Principle of Scarcity
  - The first principle of economics
  - The inability to satisfy all of our wants
- Economic actors must choose what they *consume* and what they will *forego*

"Healthcare Valuation: Volume 2 - The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Hoboken, NJ: John Wiley & Sons, 2014, p. 5-6.

Economic Principles

Scarcity

"What each one of us can get is limited by time, by the incomes we earn, and by the prices we must pay. Everyone ends up with some unsatisfied wants. What we can get as a society is limited by our productive resources. These resources include the gifts of nature, human labor and ingenuity, and tools and equipment that we have produced. . . . Our inability to satisfy all our wants is called ***scarcity****."*

-Michael Parkin

"Economics" By Michael Parkin, Boston Pearson Addison Wesley, 2008, p. 2.

Economic Principles

Scarcity

"The all-pervasive economic problem is that of scarcity. Not all desired things are available to individuals, the ultimate decision making agents, when and as desired. Even if all desired physical commodities were present in unlimited quantities, we would not have enough time to enjoy them all. . . . It is the fact of scarcity that forces us to make economic decisions, that is, to organize our efforts for production and/or to engage in trade with a view toward obtaining desired objects."

- Jack Hirshleifer

"Price Theory and Applications" By Jack Hirshleifer, 3rd Edition, Englewood Cliffs, NJ: Prentice-Hall, 1984, p. 16.

Economic Principles

Scarcity

"Every economy faces the problem of scarcity: individuals in an economy always wish to consume more goods and services than the economy is capable of producing. Even primitive societies, which appear to have limited wants, and frontier societies, which appear to have unlimited resources, face scarcity. In both of these examples, time is still a scarce resource and it must be carefully allocated between production of goods and consumption of leisure. Everyone would prefer to have the same amount of goods and more leisure, but that is not possible because leisure time must be given up to get produced goods."

- Brian R. Binger and Elizabeth Hoffman

"Microeconomics with Calculus" By Brian R. Binger and Elizabeth Hoffman, 2nd Edition, Boston, MA: Addison Wesley Longman, 1998, p. 95.

Economic Principles

Scarcity

- Economists analyze relationships between individual actors and goods and services
- Resources are limited, therefore rational economic actors must choose what to consume
- Study of economics
  - Describes how economic decisions are made
  - Attempts to optimize decisions

"Economics" By Michael Parkin, Boston Pearson Addison Wesley, 2008, p. 2.

Economic Principles

Scarcity

- Economists make the following simplifying assumptions for their models:
  - Individuals prefer more of a good to less
  - Individuals generally operate in a rational manner
  - Individuals are capable of recognizing their preferences between separate bundles of goods
- Economists posit certain mathematical principles regarding an individual's preferences:
  - Complete
  - Reflexive
  - Transitive
  - Continuous

"Economics" By Michael Parkin, Boston Pearson Addison Wesley, 2008, p. 2.

Economic Principles

Scarcity

- If demand is constant, scarcity of a good increases value
- Scarcity causes economic actors to choose what they will consume
- Unlimited resources would eliminate the need to choose a unique bundle of goods
- An individual must consider trade-offs between bundles of goods
- This process requires a methodology to decide between preferred outcomes and less preferred outcomes
- Scarcity serves as the foundation of economic value

"The Appraisal of Real Estate" Appraisal Institute, 10th Edition, Chicago, IL: Appraisal Institute, 1992, pp. 24-25, 34.

Economic Principles

Utility Theory

- The economic foundation for analyzing an individual's anticipated utility pay-off from consumption patterns of different bundles of goods
- Defines the criteria by which individuals choose preferences
- Model for utility maximization allows economists to identify a consumer’s most-preferred consumption bundle

Economic Principles

Utility Theory

- An abstract concept that encompasses both *satisfaction* and *reduction in pain or discomfort*
- For example, if a person is relieved of an expense than this would increase his or her stock of utility
- Utility is offset by the person's sources of *disutility*
- Pain and pleasure experienced uniquely by each individual

Economic Principles

Utility Theory

*"Since Utility is not observable, however, there is an extremely difficult measurement problem in constructing a set of cardinal utility indices for individuals. Each person **might** be able to construct an index reflecting personal preferences. However since person A cannot observe the utils person B enjoys and vice versa, there is no way to verify whether person A's utils have the same enjoyment value as person B's."*

- Brian R. Binger and Elizabeth Hoffman

"Microeconomics with Calculus" By Brian R. Binger and Elizabeth Hoffman, 2nd Edition, Boston, MA: Addison Wesley Longman, 1998, p. 108.

Economic Principles

Utility Theory

- Utility not quantifiable in an aggregate population, instead bundles of goods can be ranked
- Behavior of individuals can be analyzed within the framework of *utility* and *utility maximization*
- It is still possible to determine an individual's relative preference of one bundle of goods over another

Economic Principles

Utility Theory

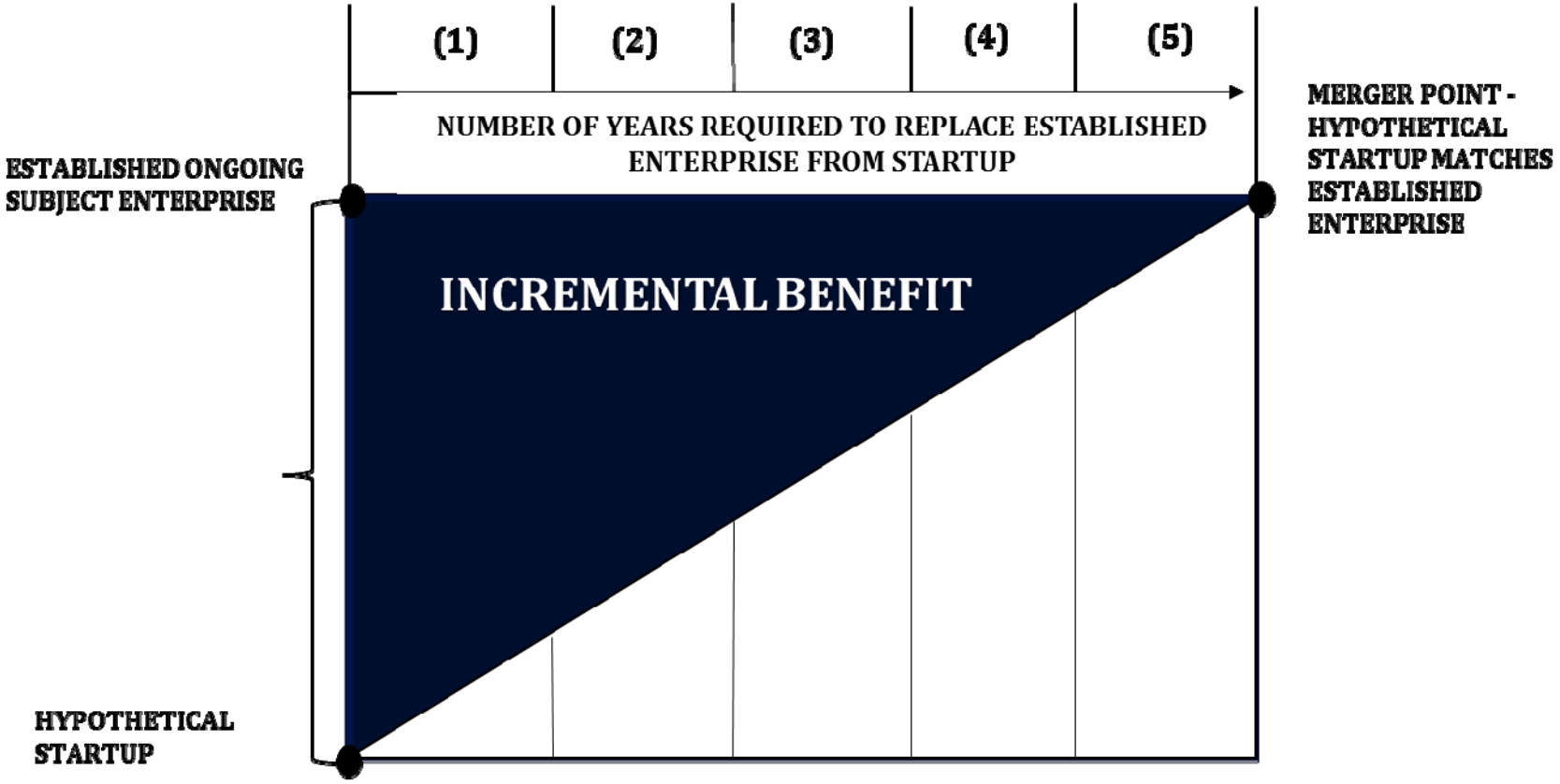
- The Principle of Substitution
  - What normally sets the limit of what would be paid for property is the cost of an equally *desirable substitute*, or one of *equal utility*

"Thus, the Principle of Substitution, a general prediction of economic exchange behavior, is valid because the behavior it predicts is based on at least implicit reasoning about the economic process. It is based on knowledge of economic causes and effect. It presupposes, then, another economic principle, that is, another general prediction, namely, that at a certain point, additional units of value expended will not create additional units of satisfaction. A unit of satisfaction created by an additional unit invested is a unit of marginal utility."

- Brian R. Binger and Elizabeth Hoffman

"Microeconomics with Calculus" By Brian R. Binger and Elizabeth Hoffman, 2nd Edition, Boston, MA: Addison Wesley Longman, 1998, p. 108.

Buy or Build – Value as "Incremental Benefit"



THE TOTAL INCREMENTAL BENEFIT CAN BE SAID TO REPRESENT THE "COST" OF OBTAINING AN EQUALLY DESIRABLE SUBSTITUTE TO THE ESTABLISHED ENTERPRISE, i.e., REPLACING IT FROM STARTUP.

"Healthcare Valuation: Volume 2 - The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Hoboken, NJ: John Wiley & Sons, 2014, p. 10.

Economic Principles

Utility Theory

- Utility is often confused with wealth or income
- Value of wealth derived from ability to convert to goods or services
- An increase in income, increases utility through the ability to purchase more goods
- Utility is maximized when individuals select their most preferred consumption bundle from the universe of possible bundles of goods or services

Economic Principles

Utility Theory

- **The Principle of Diminishing Returns**
  - Total utility increases with consumption
  - Marginal utility increases at a decreasing rate
  - All goods are subject to decreasing marginal utility

Economic Principles

Utility Theory

"In contrast to total utility, marginal utility decreases as consumption increases. This is the key notion here. After a certain point, total and marginal utility are negatively correlated. This refers to the fact that additional units of satisfaction achieved from possession, use or consumption of additional units of goods or property result finally in decreasing rates of satisfaction."

-Richard Rickert

""Chapter 3: The Principles and Concepts of Valuation: Theory of Utility and Value, Value Influences, and Value Concepts" p. 13, in "Appraisal and Valuation: An Interdisciplinary Approach" By Richard Rickert, Washington, DC: American Society of Appraisers, 1987.

Economic Principles

Utility Theory

"Human wants for any one kind of commodity, they pointed out, are subject to a law of diminishing importance. Some wants for a particular commodity are urgent, other wants less so, and others still less. Therefore, when our supply of a commodity is limited, we assign the units of the supply to the satisfaction of the more important wants. The utility implied in the least important want, which we are in a position to satisfy with the given supply, is the marginal utility for that supply. It measures the importance of any one unit, since, if one unit of the supply were destroyed, only the least important want would go unsatisfied."

- James C. Bonbright

"The Valuation of Property: A Treatise on the Appraisal of Property for Different Legal Purposes" By James Bonbright, New York, NY: McGraw-Hill, 1936, p. 94.

Economic Principles

Expected Utility

- Lack of perfect information limits utility maximization
- Utility maximizing decisions require information to be similar to complete information
- Perfect forethought is impossible, even with complete information
- Random events may alter expected outcomes

Economic Principles

Principle of Anticipation

- Economic actors make decisions based on future expectations
- Future expectations form the foundation of value
- The source of value for money comes from its ability to be converted in the future into goods or services
- Purchase decisions are a comparison of the utility of a good *today* versus the utility of a good in the *future*
- Differential in expected utility outcomes creates all opportunities for trade
- Price of the transaction is commensurate with the expectations of both the purchaser and the seller

Economic Principles

Forward-Looking Value and Discounting

- All economic value is forward looking
- An economic value analysis should be focused on future economic benefits
- Value is bounded by the cost of an equally desirable substitute

""Chapter 3: The Principles and Concepts of Valuation: Theory of Utility and Value, Value Influences, and Value Concepts" p. 47, in "Appraisal and Valuation: An Interdisciplinary Approach" By Richard Rickert, Washington, DC: American Society of Appraisers, 1987.

Economic Principles

Forward-Looking Value and Discounting

- Each element of a bundle of goods should be identified and classified based on expected utility
- In established societies rights of ownership are protected by:
  - Legal protections
  - Police powers
  - Due process of law
- Without due process of law, rights of ownership may be constrained

""Chapter 3: The Principles and Concepts of Valuation: Theory of Utility and Value, Value Influences, and Value Concepts" p. 47, in "Appraisal and Valuation: An Interdisciplinary Approach" By Richard Rickert, Washington, DC: American Society of Appraisers, 1987.

Economic Principles

Forward-Looking Value and Discounting

- Expected utility of a good must be greater than the loss of utility from reduction in wealth
  - If utility of a good < loss of utility, then an individual will not proceed with the transaction
  - If utility of a good > loss of utility, then an individual will proceed with the transaction

Economic Principles

Forward-Looking Value and Discounting

"We have already seen that the price which a person pays for a thing can never exceed, and seldom comes up to that which he would be willing to pay rather than go without it: so that the satisfaction which he gets from its purchase generally exceeds that which he give up in paying away its price; and thus derives from the purchase a surplus of satisfaction."

- Alfred Marshall

"Principles of Economics" By Alfred Marshall, 8th Edition, London, UK: Macmillan Publishers Ltd, 1948, p. 103.

Economic Principles

Forward-Looking Value and Discounting

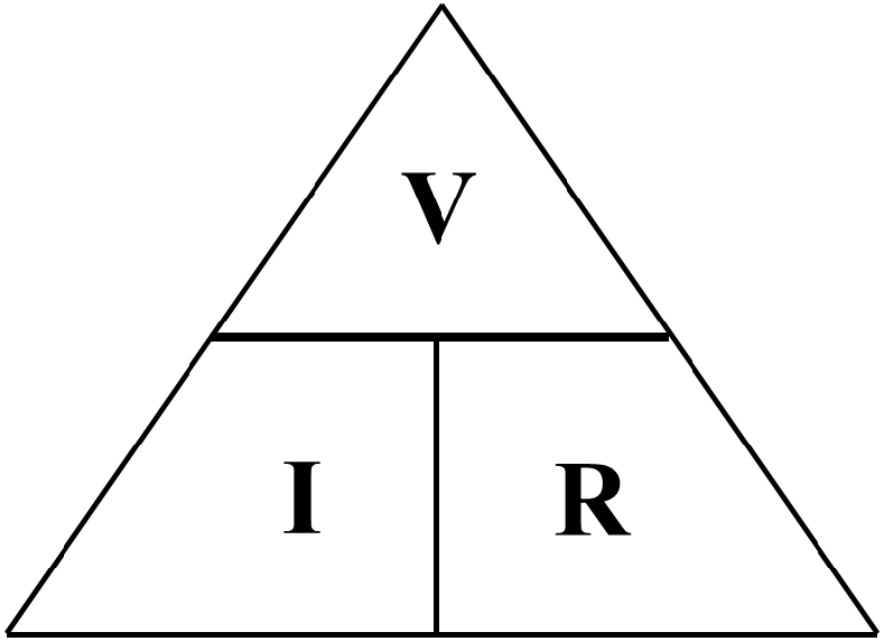
- Forward-looking nature of value allows for uncertainty in the outcome of the transaction
- Must account for uncertainty in expected utility from a good
- Uncertainty results in reduction in level of expected utility
- The process of reducing the expected level of utility to reflect uncertainty is known as discounting

Economic Principles

Forward-Looking Value and Discounting

- For example consider two goods that will generate an equal level of utility one year in the future
  - Good (A) has *complete certainty* (100 percent) of providing the benefit
  - Good (B) has a *50 percent probability* of providing the benefit
  - The probability-weighted expected utility pay-off from the first good is greater than the second good
- In general the riskier the expected pay-off from a good, the lower the value of the good

The Value Pyramid



I = **Economic Benefit Stream, e.g., Income, Earnings, Cash Flow**
As defined by appraiser and appropriate to assignment

R = **Risk Adjusted Required Rate of Return applicable to selected benefit stream**
e.g., Discount Rate, Cap Rate, Multiple Valuation

V = **Economic Value of the enterprise**

"Healthcare Valuation: Volume 2 - The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Hoboken, NJ: John Wiley & Sons, 2014, p. 15-16.

Economic Principles

Summary

- Scarcity of resources leads to decisions based on trade-offs between consumption of various bundles of goods
- The forward-looking expected utility pay-off from ownership forms the basis of value
- The Principle of Substitution and the Principle of Utility apply in the performance of a valuation analysis
- Fundamental economic facts or economic behavior under certain conditions form basis of economic laws

Economic Principles

Summary

- Principle of Substitution and the Principle of Anticipation are premised on Principle of Utility
- Principle of Utility is the primal concept of valuation
- Forward-looking expectations are subject to uncertainty
- Individuals mitigate uncertainty through discounting

Standard of Value vs. Premise of Value

Standard of Value	Premise of Value
Value to Whom?	***Value under what Further Defining Circumstances?***

• Outlines type of value to be determined
• Standards of Value include:
  • Fair Market Value (FMV)
  • Fair Value
  • Market Value
  • Acquisition Value
  • Use Value
  • Investment (Investor) Value
  • Owner Value
  • Insurable Value
  • Collateral Value
  • Ad Valorem Value
  • Divorce Value
	• Further defines the Standard of Value to be used, including additional facts and circumstances considered
	• Hypothetical terms of the sale
	  (1) Value in Use, As a Going-Concern
	  (2) Value in Exchange
	  • As an orderly disposition of a mass assemblage of assets in-place;
	  • As an orderly disposition of individual assets; or,
	  • As a forced liquidation of individual assets

"Valuing Intangible Assets" By Robert F Reilly and Robert P. Schweihs, New York, NY: McGraw-Hill, 1999, p. 59-61, 63-64. "Valuation of Healthcare Entities and Assets: The Impact of 2010 Legislation" By Robert James Cimasi, CPA Leadership Institute (11/6/2012), p. 39.

Financial Valuation Concepts

Standard of Value

- Standard of Value must be agreed upon at outset of valuation
- Standard of Value defines the type of value to be determined
- It also determines value to whom
- Several *Standards of Value* may be sought including:
  - Fair Market Value (FMV)
  - Fair Value
  - Market Value
  - Acquisition Value
  - Use Value
  - Investment (Investor) Value
  - Owner Value
  - Insurable Value
  - Collateral Value
  - Ad Valorem Value
  - Divorce Value

Financial Valuation Concepts

Fair Market Value

- Most probable price that subject interest would have on open market on valuation date
- Regulations require most healthcare transactions to adhere to standard of Fair Market Value
- This standard of value assumes hypothetical transaction where:
  - Buyer and seller have equal knowledge
  - Price not affected by undue stimulus
  - Price not affected by coercion

Financial Valuation Concepts

Fair Market Value

- Following assumptions are implicit in this definition:
  - Hypothetical transaction considered contemplates universe of purchasers for the subject property and not a specific purchaser
  - Buyer and seller are typically motivated
  - Both parties are well informed and have rational economic self-interests

Financial Valuation Concepts

Assumptions (con't)

- Both parties are professionally advised with legal protections in place to safeguard transfer of ownership
- A reasonable amount of time is allowed for exposure in the open market
- A reasonable availability of transactional capital in the marketplace
- Payment is made in cash or its equivalent

Financial Valuation Concepts

Fair Market Value

"the amount at which property would change hands between a willing seller and a willing buyer when neither is acting under compulsion and when both have reasonable knowledge of the relevant facts. . . . In most interpretations of fair market value, the willing buyer and willing seller are hypothetical persons dealing at arm's length, rather than any particular buyer or seller. In other words, a price would not be considered representative of fair market value if influenced by special motivations not characteristic of a typical buyer or seller. There is also general agreement that the definition implies that the parties have the ability as well as the willingness to buy or sell. The market in this definition can be thought of as all the potential buyers and sellers of like businesses or practices."

- Shannon Pratt

Shannon Pratt, *Valuing a Business: The Analysis and Appraisal of Closely Held Companies*, 5th ed. (New York: McGraw-Hill, 2008), pp. 41–42

Financial Valuation Concepts

IRS Definition of FMV

- "*…price at which property or the right to use property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy, sell, or transfer property or the right to use property, and both having reasonable knowledge of relevant facts*."

"Excess Benefit Transaction" 26 CFR 53.4958-4 (April 1, 2012).
"Program Integrity; Medicare and State Health Care Programs; Permissive Exclusions," 42 C.F.R. §1001.952(b)(5), (2009), p. 735.

Financial Valuation Concepts

Anti-Kickback Statute Definition of FMV

- "*…fair market value in arms-length transactions…not determined in a manner that takes into account the volume or value of any referrals or business otherwise generated between the parties for which payment may be made in whole or in part under Medicare or a State health care program*."

"Medicare and Medicaid Programs; Physicians' Referrals to Health Care Entities with Which They Have Financial Relationships (Phase III): Final Rule" Federal Register Vol. 72, No. 171 (September 5, 2007), p. 51081.

Financial Valuation Concepts

Stark Law Definition (in Stark II) of FMV

- "*Fair market value means the value in arm's-length transactions, consistent with the general market value. General market value' means the price that an asset would bring as the result of bona fide bargaining between well-informed buyers and sellers who are not otherwise in a position to generate business for the other party, or the compensation that would be included in a service agreement as the result of bona fide bargaining between well-informed parties to the agreement who are not otherwise in a position to generate business for the other party, on the date of acquisition of the asset or at the time of the service agreement*."

The Stark Law (as stated in the U.S. code) also equates the terms Fair Market Value and General Market Value, to wit: "The term 'fair market value' means the value in arms length transactions, consistent with the general market value." From "Limitation on Certain Physician Referrals" 42 U.S.C. §1395nn (April 4, 2012).

Financial Valuation Concepts

Fair Market Value

- Valuing healthcare-related enterprise, asset, or service requires consideration of:
  - The federal Stark Laws
  - Anti-Kickback Statutes
  - Regulations related to tax-exempt organizations

Financial Valuation Concepts

Fair Market Value

- Anticipated hypothetical transaction should comply with “Stark I & II” legislation
- Stark I & II prohibit physicians from making referrals for “designated health services” reimbursable under Medicare to an enterprise with which the referring physician has a financial relationship

42 U.S.C.A. § 1395nn(a) (2006); Social Security Act § 1877(a) (2006).
42 U.S.C.A. § 1395nn(h)(3) (2006); Social Security Act § 1877(h)(3) (2006).

Financial Valuation Concepts

Fair Market Value

- Stark II's specific exception for "isolated financial transaction[s]" assumes remuneration from employment is:
  - Consistent with fair market value of the services
  - Not determined in a manner that takes into account the volume or value of any referrals by the referring physician
  - Is provided pursuant to an agreement which would be commercially reasonable even if no referrals were made to the employer
  - The transaction meets such other requirements as the Secretary [of HHS] may impose by regulation as needed to protect against program or patient abuse

42 U.S.C.A. § 1395nn(e)(2)(B), (C), (6) (2006); Social Security Act § 1877(e)(2)(B), (C), (6) (2006).

Financial Valuation Concepts

Fair Market Value

- Also assumes compliance with federal Anti-Kickback Statute
- The federal Anti-Kickback Statute requires the payment of:
  - Fair market value in arm's-length transactions
  - Compensation not dependent on volume or value of any referrals
  - Compensation also not determined by any business that receives payments from Medicare, Medicaid or other federal health programs

42 U.S.C.A. § 1320a-7b(b) (2004).
42 CFR 1001.952(d)(5) (2004).

Financial Valuation Concepts

Fair Market Value

- The following are also applicable to any transactions:
  - Excess benefit transaction is a transaction in which
    - An economic benefit is provided by an applicable tax-exempt organization to a disqualified person
    - The value of the economic benefit provided exceeds the consideration received
  - In an excess benefit transaction, valuation of property is fair market value
  - Disqualified person, is anyone who can exercise substantial influence over applicable tax-exempt organization during a five-year period ending on the date of transaction

"Intermediate Sanctions—Excess Benefit Transactions," Internal Revenue Service, United States Department of the Treasury, ttp://www.irs.gov/charities/charitable/article/0,,id=123303,00.html (accessed September 2, 2008).

"Disqualified Person," Internal Revenue Service, IRS.gov, http://www.irs.gov/charities/charitable/article/0,,id=154667,00.html (accessed September 2, 2008);"Lookback Period," Internal Revenue Service, IRS.gov, http://www.irs.gov/charities/charitable/article/0,,id=154670,00.html (accessed September 2, 2008).

Financial Valuation Concepts

Fair Market Value

- Increasing government scrutiny of the business activities of healthcare providers
- Led to tightened restrictions and increased regulatory enforcement
- Subject to civil and criminal penalties in the areas of
  - Fraud and Abuse
  - Anti-kickback
  - Self-referral
  - Tax-exempt status

Financial Valuation Concepts

Requirement for Fair Market Value

- Normal business arrangements in other industries may present significant risk of fraud in the healthcare industry
- For example, referral relationships that would be both lawful and expected in other industries may violate both federal and state anti-kickback and/or self-referral laws when they are found to exist between healthcare providers

Financial Valuation Concepts

Requirement for Fair Market Value

- Many changes in Medicare Fraud and Abuse enforcement relating to physician self-referral laws
- Has led to uncertainty in transactions for providers of designated health services (DHS)
- This has resulted in a greater perception of risk of the valuation of these enterprises

Financial Valuation Concepts

Fair Value

- Standard of Fair Value is distinct from Fair Market Value
- Fair Value has separate definitions under accounting standards and state law
- Under accounting standards fair value is the price that would be:
  - Received to sell an asset
  - Paid to transfer a liability (an exit price)

"Statement of Financial Accounting No. 157: Fair Value Measurements," Financial Accounting Standards Board, September 2006, p. 2.

Financial Valuation Concepts

Financial Accounting Standards Board (FASB) Definition of Fair Value

- *"The Board agreed that the measurement objective encompassed in the definition of fair value used for financial reporting purposes is generally consistent with similar definitions of fair value used for valuation purposes. For example, the definition of fair market value in Internal Revenue Service Ruling 59–60 (the legal standard of value in many valuation situations) refers to "the price at which property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of relevant facts." However, the Board observed that the definition of fair market value relates principally interpretive case law, developed in the context of tax regulation. Because such interpretive case law, in the context of financial reporting, may not be relevant, the Board chose not to adopt the definition of fair market value, and its interpretive case law, for financial reporting purposes."*

"Statement of Financial Accounting No. 157: Fair Value Measurements," Financial Accounting Standards Board, September 2006, p. 75.

Financial Valuation Concepts

Universal Business Corporation Act Definition of Fair Value

- "*the value of the shares immediately before the effectuation of the corporate action to which the dissenter objects, excluding any appreciation or depreciation in anticipation of the corporate action unless exclusion would be inequitable.*"

Oregon Revised Statues, Section 60.551(4), 2013.

Financial Valuation Concepts

Fair Value

- The term “price,” as mentioned in the FASB definition
- Entry price is the price paid to acquire the asset or to assume the liability
- The definition implies a transaction in an ideal market
- Market in this definition is the market in which the reporting entity would transact for the asset or liability

“Valuing a Business: The Analysis and Appraisal of Closely Held Companies,” By Shannon Pratt, 5th edition, New York, NY: McGraw-Hill, 2008, p. 46, citing “SFAS No. 157—Fair Value Measurements,” paragraph 5., p. 1006 - 1007

Financial Valuation Concepts

Fair Value

- If an active market exists on the date of valuation, the market price may be at Fair Value
- To quantify Fair Value, FASB has identified three hierarchies of measurement:
  - Level 1 (highest-priority) inputs are quoted prices in active markets for identical assets or liabilities
  - Level 2 inputs are those other than quoted prices included within Level 1 that are directly or indirectly observable
  - Level 3 inputs are unobservable inputs that reflect assumptions about what market participants would use in their pricing analyses

"Valuing a Business: The Analysis and Appraisal of Closely Held Companies," Shannon Pratt, 5th edition, New York, NY: McGraw-Hill, 2008, p. 1006-1007.; "Statement of Financial Accounting No, 157: Fair Value Measurements", Financial Accounting Standards Board, September 2006, pp. 9-12

Financial Valuation Concepts

Fair Value

- Many states have adopted the Universal Business Corporation Act
- Defines Fair Value as
  - The value of the shares immediately before the effectuation of the corporate action to which the dissenter objects
  - Excludes any appreciation or depreciation in anticipation of the corporate action unless exclusion would be inequitable

Oregon Revised Statues, Section 60.551(4), 2009.

Financial Valuation Concepts

Investment Value (Synergies)

- The specific value of an investment to a particular investor or class of investors based on
  - Individual investment requirements
  - Distinguished from market value
  - Which is impersonal and detached
- Some valid reasons for the difference between *Investment Value* and *Fair Market Value* are given below:
  - Differences in estimates of future earning power
  - Differences in perception of the degree of risk and the required rate of return
  - Differences in financing costs and tax status
  - Synergies with other operations owned or controlled

"The Dictionary of Real Estate Appraisal," 4th edition, Chicago: Chicago Appraisal Institute, 2002, p. 152.

Financial Valuation Concepts

Fundamental (Intrinsic) Value

- The previous valuation standards are distinct from the concept of Fundamental (or Intrinsic) Value
- Fundamental (or Intrinsic) Value can be defined as a representation of an analytical judgment of value based on:
  - The perceived characteristics inherent in the investment
  - Not tempered by characteristics peculiar to any one investor
  - Tempered by how these perceived characteristics are interpreted by one analyst versus another

"Valuing a Business: The Analysis and Appraisal of Closely Held Companies," Shannon Pratt, 5th edition, New York, NY: McGraw-Hill, 2008, p. 44.

Financial Valuation Concepts

Market Value

- The most probable price an asset would bring in a competitive and open market
- Assumes following conditions requisite for fair sale:
  - Buyer and seller are acting prudently and knowledgeably
  - Price is unaffected by undue stimulus

"Valuing Intangible Assets" By Robert F Reilly and Robert P. Schweihs, New York, NY: McGraw-Hill, 1999, p. 60

Financial Valuation Concepts

Acquisition Value

- The price that a buyer would pay for an asset with consideration given to the unique benefits to the buyer
- Acquisition value typically answers the question: What is the most that a buyer is willing to pay for an intangible asset, given the buyer's unique circumstances
- May not apply to all asset valuations

"Valuing Intangible Assets" By Robert F Reilly and Robert P. Schweihs, New York, NY: McGraw-Hill, 1999, p. 60

Financial Valuation Concepts

Use Value

- Value of an asset in a particular, specified use
- Typically estimated by answering a question such as:
  - How much would a buyer pay if they could only use the intangible asset in South America?
  - How much would a buyer pay if the intangible asset expanded from the commodity chemicals industry to the consumer packaged goods industry?
  - How much would a buyer pay if the owner of the intangible asset discontinues use in the data services industry, even though that application is the highest and best use?
- May not apply to all asset valuations

"Valuing Intangible Assets" By Robert F Reilly and Robert P. Schweihs, New York, NY: McGraw-Hill, 1999, p. 60

Financial Valuation Concepts

Owner Value

- Value of an asset to its current owner
- This standard does not contemplate a sale transaction
- Rather answers the question what is the value given:
  - An owner's abilities
  - Sources of capital
- This standard is more appropriate for strategic planning
- May not apply to all asset valuations

"Valuing Intangible Assets" By Robert F Reilly and Robert P. Schweihs, New York, NY: McGraw-Hill, 1999, p. 60

Financial Valuation Concepts

Insurable Value

- The amount of insurance proceeds necessary to replace the subject asset with a comparable asset
- Does not contemplate a market transaction
- Helps to answer the question: How much insurance is appropriate for the asset?

"Valuing Intangible Assets" By Robert F Reilly and Robert P. Schweihs, New York, NY: McGraw-Hill, 1999, p. 61

Financial Valuation Concepts

Collateral Value

- The amount that a creditor would be willing to loan with the subject asset serving as security for the loan
- Answers the question: How much can be borrowed against this asset?
- Collateral is usually a percentage of fair market value or market value on a stand alone basis

"Valuing Intangible Assets" By Robert F Reilly and Robert P. Schweihs, New York, NY: McGraw-Hill, 1999, p. 61

Financial Valuation Concepts

Ad valorem value

- Value of an asset for property taxation purposes
- Sometimes a function of fair market value
- Some intangible assets with a measurable market value may not be recognized for ad valorem
- Nonrecognition is due to statutory standards of jurisdictional property tax code

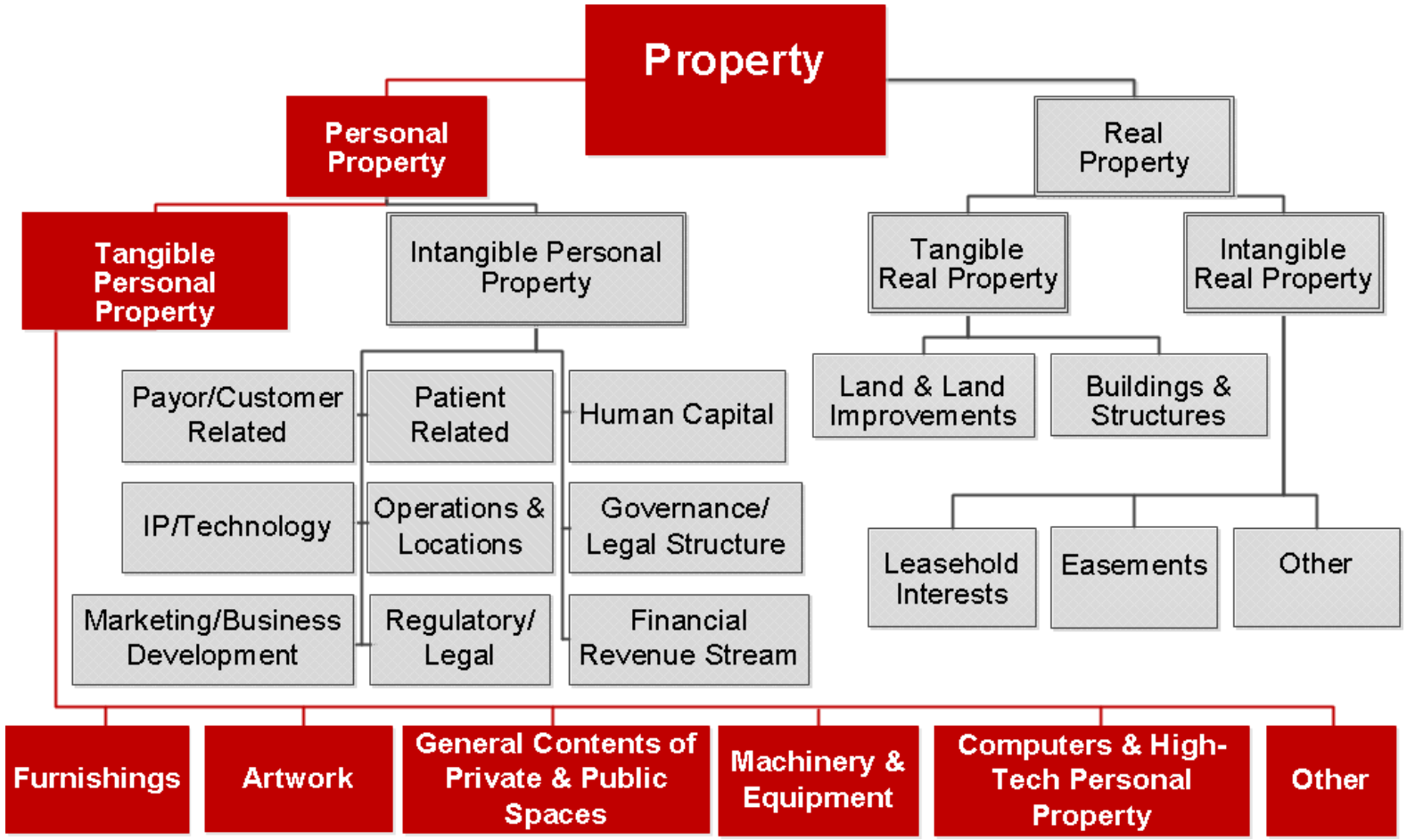
"Valuing Intangible Assets" By Robert F Reilly and Robert P. Schweihs, New York, NY: McGraw-Hill, 1999, p. 61

Resource-Based View of an Enterprise

- Business enterprise: pool of resources & capabilities
- Firm performance based on use of resources to meet demands
- Resources classified as:
  - Tangible Assets
  - Intangible Assets
  - Human Assets

"Contemporary Strategy Analysis," By Robert Grant, Fifth Edition, Malden, MA: Blackwell Publishing, 2005, p. 133, 138, 139.

Types of Property/Assets

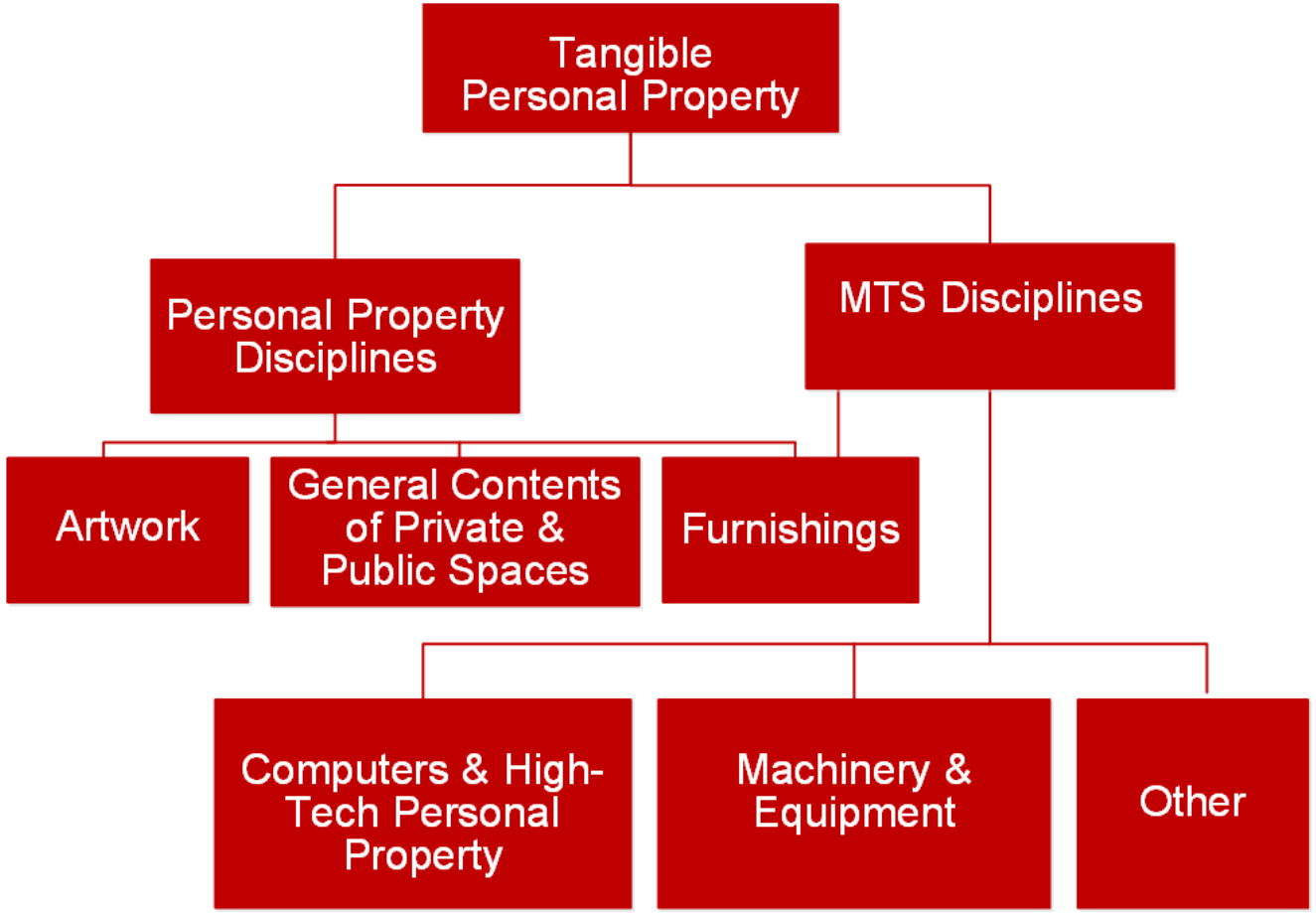


Tangible Assets

- Assets that are physical and material in nature
- Examples Include:
  - Land
  - Land Improvements
  - Buildings
  - Machinery and equipment
  - Office Furniture

"Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets" American Society of Appraisers, Third Edition, Washington, DC: 2011, p. 125.

Valuation Disciplines for Tangible Personal Property

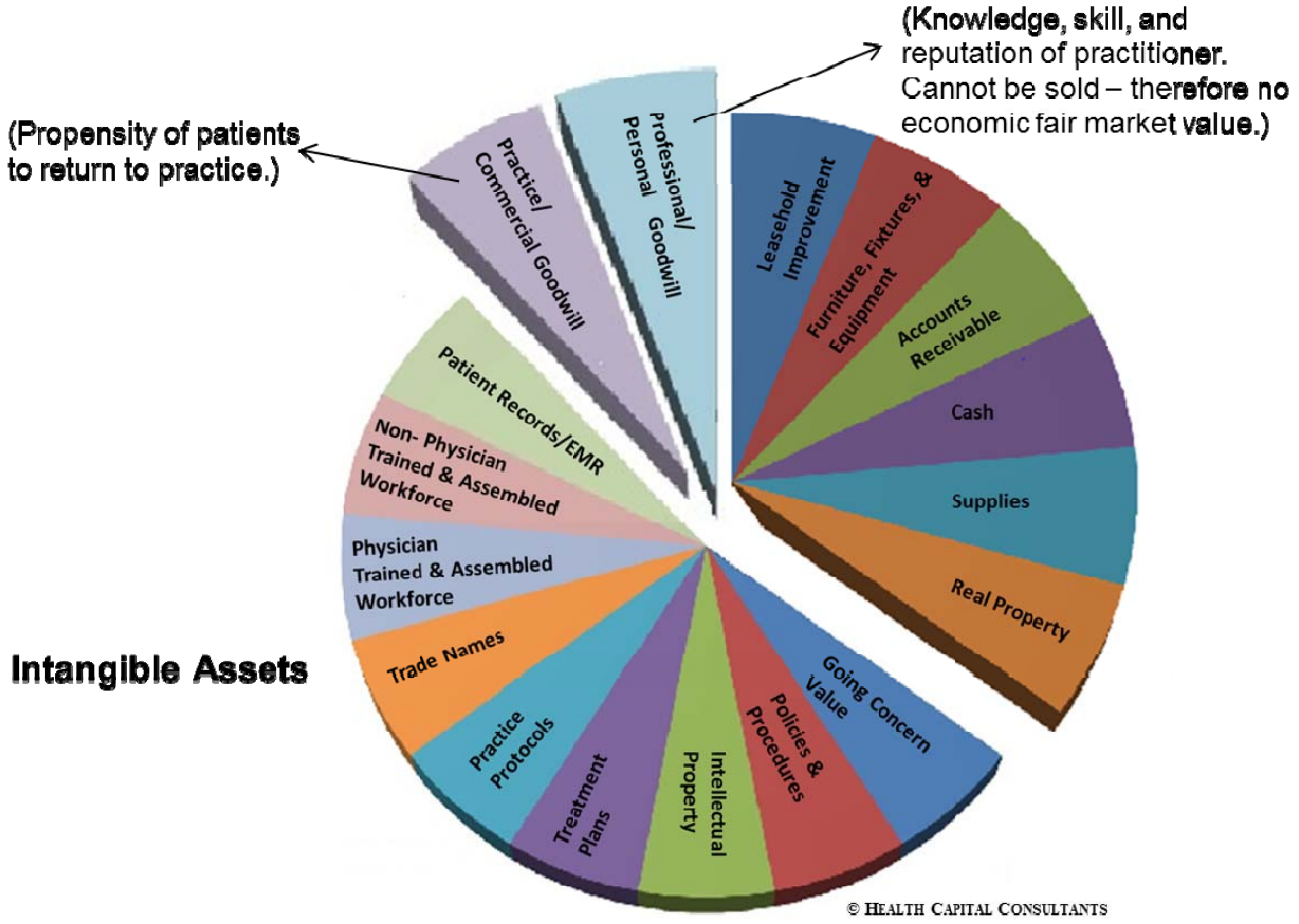


Intangible Assets

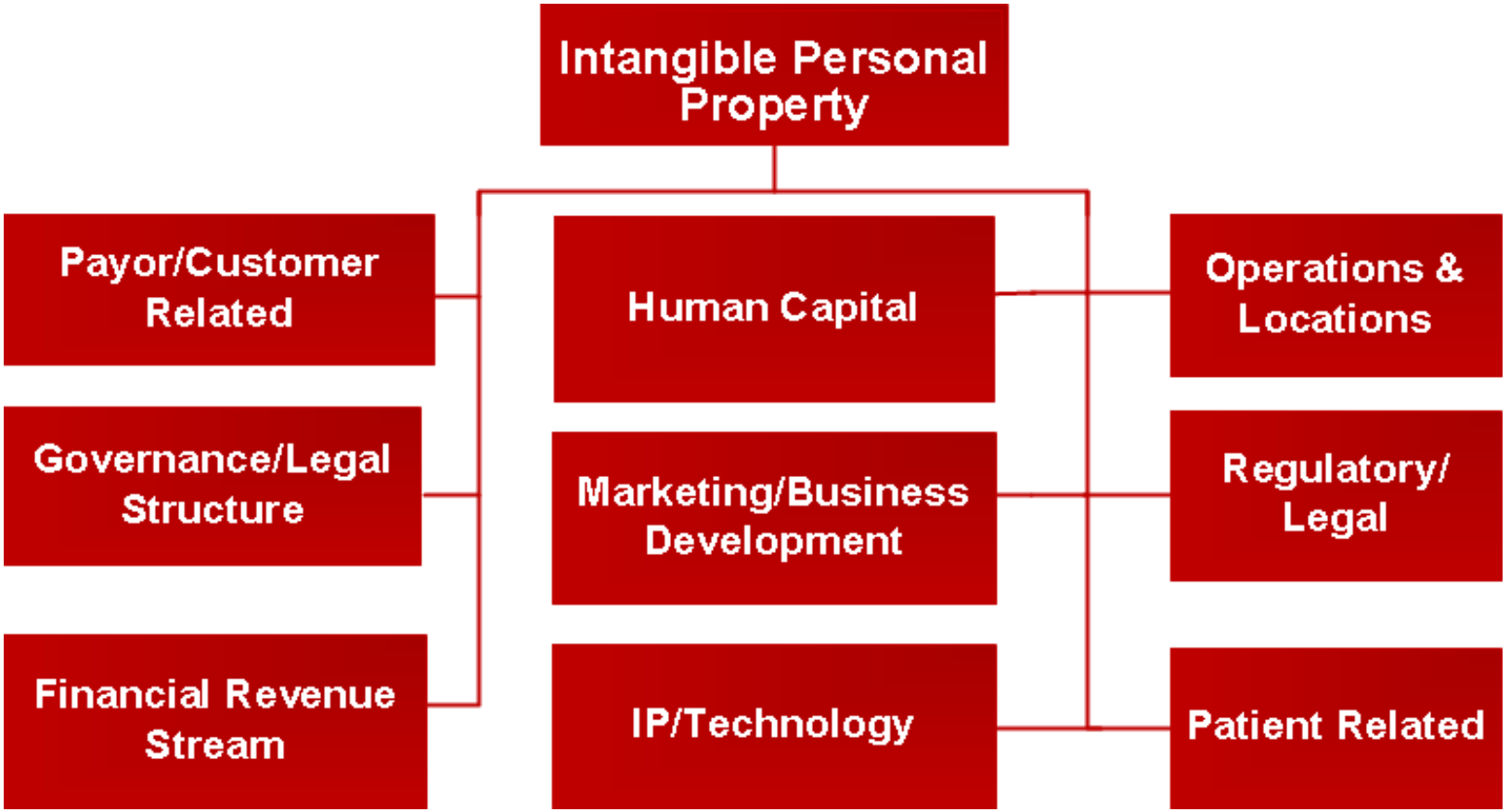
- Assets with no physical existence
  - Possess value based on the rights and privileges associated with them
  - Examples include:
    - Contracts
    - Assembled Workforce
    - Computer Software

"Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets" American Society of Appraisers, Third Edition, Washington, DC: 2011, p. 125.

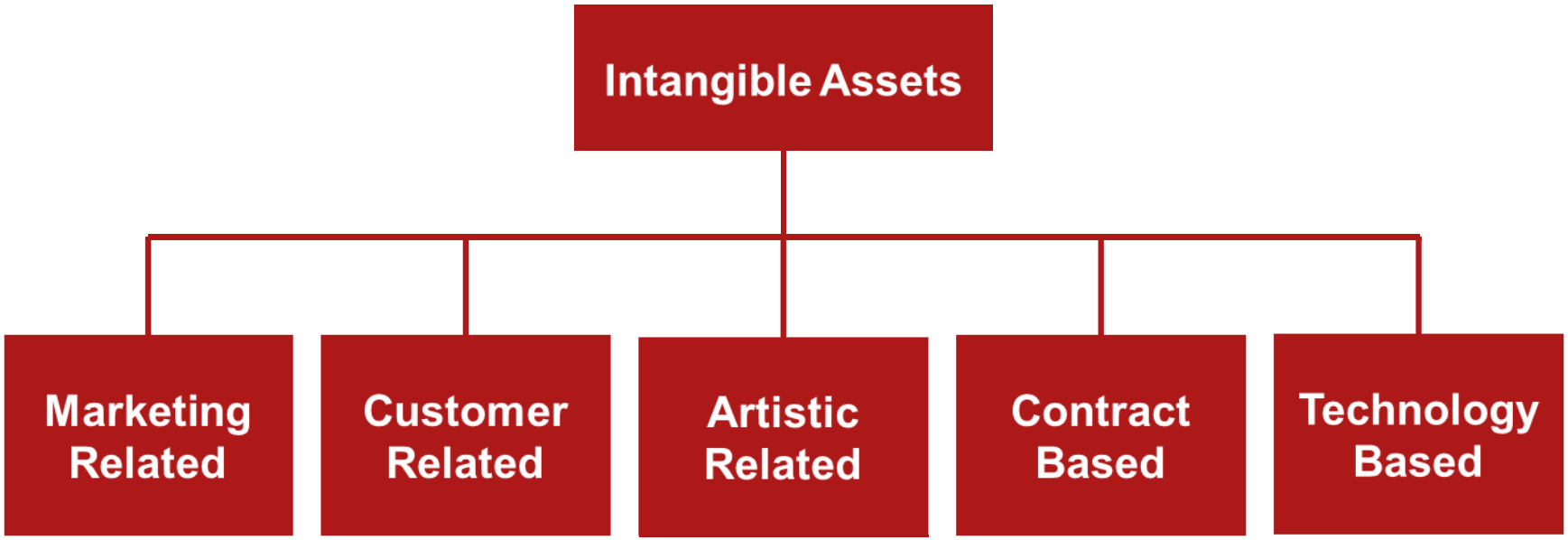
Types of Tangible and Intangible Property/Assets in Healthcare



Classification of Intangible Personal Property



Classification of Intangible Personal Property for Financial Reporting



Human Assets

- The productive services that human beings offer to the firm in terms of:
  - Skill
  - Knowledge
  - Reasoning
  - Decision Making Capabilities

"Contemporary Strategy Analysis," By Robert Grant, Fifth Edition, Malden, MA: Blackwell Publishing, 2005, p. 143.

Organizational Capability

- Ability of a firm to effectively utilize its resources to produce economic profits
- *Value in use* premise typically considers entirety of the business enterprise's *resources* working *synergistically* in concert with its *capabilities*
- Under this premise the result may be a higher value than that achieved by valuing each discrete *resource* separately

"Contemporary Strategy Analysis," By Robert Grant, Fifth Edition, Malden, MA: Blackwell Publishing, 2005, p. 144.

Assemblage Synergies

"What is the value of the left-hand member of a pair of $4 gloves? Practically nothing if the part is valued separately from the whole; approximately $4 if the part is valued as a part of the larger whole. Obviously, neither of these figures—zero of $4 per glove—can be multiplied by two as an expression of the value of a pair of gloves. On the other hand, if we start with the $4 value of the entire pair and prorate that figure between the two gloves by dividing by two, we get a value per glove that is utterly meaningless.

The example of the gloves presents an almost perfect illustration of a case where each part of an organic whole must be valued either at zero or else at the full value of the whole, depending on whether the part is valued as a separate commodity or as a part of the larger unit. This situation prevails whenever each of three conditions is met: (a) when each part is utterly worthless except as a part of the whole, (b) when no one part can be replaced except at a cost at least equal to the value of the whole, or except after a fatal delay, (c) when each part is indispensable to the functioning of the whole. Seldom, however, are all these conditions met with in the valuation of property. Many of the assets of a business enterprise, for example, can be disposed of, separately from the business, at a substantial price; most of them can be replaced in time to save the business and at a cost much less than the value of the whole business; many of them are not indispensable to the business—the enterprise could get along without them, though with a loss of earning power. Each asset, therefore, is worth neither zero on the one basis of valuation, nor the full value of the entire enterprise on the other basis.

It is nevertheless true that, with rare exceptions, there is a wide disparity between the value of an entire business enterprise and the sum of the values of its various assets or parts. This truth is well recognized when the comparison is between the value of the whole business and the separate liquidation values of the assets. But it has been frequently overlooked, or even expressly denied, when the comparison is between the value of the business and the sum of the values of the assets, valued as parts of the whole. Misled by the mathematical postulate, applied to spatial relationships, that "the whole is equal to the sum of its parts," many courts, and even some expert appraisers, have falsely inferred that the value of an economic whole is equal to the sum of the values of the parts. They have therefore often assumed that the value of the intangible assets of a business is equal to the value of the business itself minus the value of the tangibles." **[Emphasis added]**

"The Valuation of Property: A Treatise on the Appraisal of Property for Different Legal Purposes" By James C. Bonbright, McGraw-Hill, 1937, p. 76-77.

Historical Development of Principle of Highest and Best Use

- Derived from *utility* and *utility maximization*
- *Utility* is *a function of the quantities of goods acquired*
- Each individual derives utility *from the goods he purchases*
- The law of *utility maximization* states, *"…the aim of all human conduct is to maximize enjoyment."*

"Valuation of Healthcare Intangible Assets in the Absence of Positive Net Cash Flows" by Robert James Cimasi, MHA, ASA, FRICS, MCBA, CVA, CM&AA, Todd Zigrang, MBA, MHA, ASA, FACHE, John Chwarzinski, MSF, MAE, and Jonathan Wixom, MBA, Business Valuation Review, Volume 34, No. 3 (Fall 2015), p. 132.

Savings as Deferred Utility

- The intertemporal trade between *current period* consumption (leading to utility) and *future period* consumption/utility
- Individuals may elect to *save* some of the goods they acquire today *for future needs*
- Most *savings* takes the form of *investment*
- Undertaken not merely to provide for future wants, but in the expectation of a separate reward in the form of interest on capital

"Value and Capital: An Inquiry into Some Fundamental Principles of Economic Theory" By J.R. Hicks, Second Edition, London, UK: Oxford University Press, 1946, p. 11.; "A History of Economic Thought" By Eric Roll, London, UK: Faber and Faber, 1937, p. 374.; "Principles of Economics" By F.W. Taussing, New York, NY: MacMillan, 1918, p. 73.

Application of Utility and Utility Maximization

- *"It is nevertheless true that, with rare exceptions,* ***there is a wide disparity between the value of an entire business enterprise and the sum of the values of its various assets or parts****. This truth is well recognized when the comparison is between the value of the whole business and the separate liquidation values of the assets. But it has been frequently overlooked, or even expressly denied. when the comparison is between the value of the business and the sum of the values of the assets, valued as parts of the whole.* ***Misled by the mathematical postulate,*** *applied to spatial relationships, that '****the whole is equal to the sum of its parts,'*** *many courts, and even some expert appraisers,* ***have falsely inferred that the value of an economic whole is equal to the sum of the values of the parts. They have therefore often assumed that the value of the intangible assets of a business is equal to the value of the business itself minus the value of the tangibles"***

  -James Bonbright

"The Valuation of Property: A Treatise on the Appraisal of Property for Different Legal Purposes – Volume I" By James Bonbright, New York, NY: McGraw Hill, 1937, p. 77.

Principle of Highest and Best Use

- States that the *highest and best use* of an asset is:
  - *"that use among possible alternatives which is legally permissible, socially acceptable, physically possible and financially feasible, resulting in the highest economic return"*

"Chapter 3: The Principles and Concepts of Valuation: Theory of Utility and Value, Value Influences, and Value Concepts" p. 55, in "Appraisal and Valuation: An Interdisciplinary Approach" By Richard Rickert, Washington, DC: American Society of Appraisers, 1987.

Principle of Highest and Best Use

- Also defined as:
  - *"…the maximum value to market participants through its use in combination with other assets as a group (as installed or otherwise configured for use) or in combination with other assets and liabilities."*

"Accounting Standards Update 820: Fair Value Measurement," Financial Accounting Standards Board, May 2011, https://asc.fasb.org/imageRoot/00/7534500.pdf (Accessed 11/3/2015), p. 23.

Standards Rule 9-3

- The *Principle of Highest and Best Use* is emphasized by the *2014-2015 Uniform Standards of Professional Appraisal Practice (USPAP)* in Standards Rule 9-3, which states:
  - *"In developing an appraisal of an equity interest in a business enterprise with the ability to cause liquidation, an appraiser **must** investigate the possibility that the business enterprise may have a **higher value by liquidation** of **all or part of the enterprise** than by continued operation as is"*

The Appraisal Foundation, 2014, p. U-62.

Standards Rule 9-3

- USPAP goes on to explain Standards Rule 9-3:
  - *"This Standards Rule requires the appraiser to recognize that **continued operation of a business is not always the best premise of value** because liquidation of all or part of the business enterprise may result in a higher value"*

The Appraisal Foundation, 2014, p. U-62.

Standards Rule 9-3

- In the instance that the continued operation of a business is not the best premise of value then:
  - *"…liquidation of **all or part** of the enterprise is the **appropriate premise of value**"* [emphasis added]. The Financial Accounting Standards Board further emphasizes this point starting that the *highest and best use* of an asset may be in *"…selling it to another market participant."*

The Appraisal Foundation, 2014, p. U-62.

Premise of Value

- At the onset of an engagement establish *premise of value* that results in the *highest and best use* of the *pool of assets* owned by a business enterprise
- The premise of value is:
  - *"an assumption regarding the most likely set of transactional circumstances that may be applicable to the subject valuation (e.g., going-concern or liquidation)."*

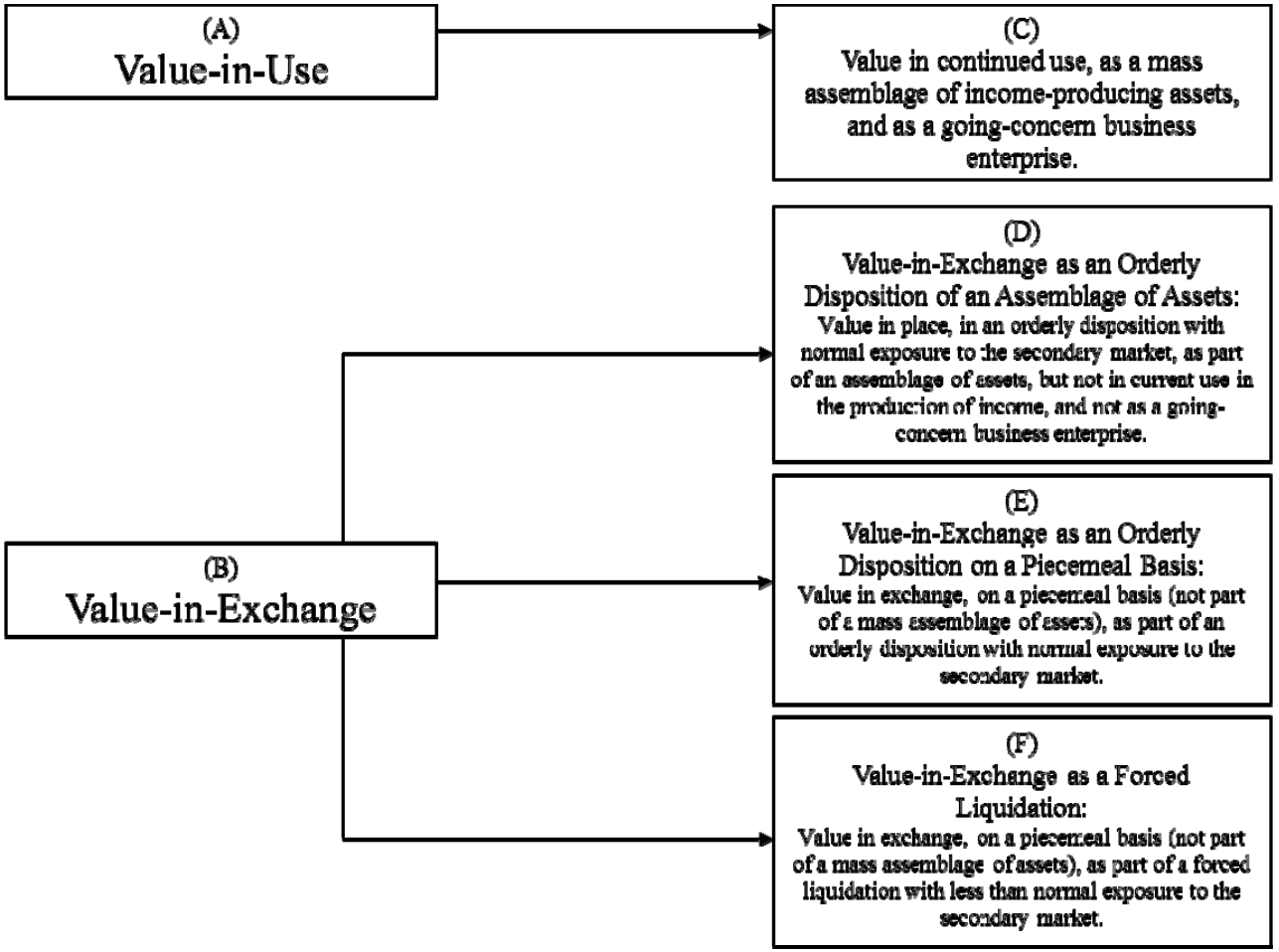
"ASA Business Valuation Standards" American Society of Appraisers, November 2009, p. 31.

Premise of Value

- The *premise of value* assumption is defined by the highest and best use of the assets, which in turn is based on the use of the assets that is:
  - Legally permissible
  - Physically possible
  - Financially feasible
  - Maximizes productivity
- In business valuation, there are two separate, distinct *premises of value*: (1) *Value in Use*; and, (2) *Value in Exchange*

"Statement of Financial Accounting Standards No. 157: Fair Value Measurements" Financial Accounting Standards Board, September 2006, http://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1218220130001&acceptedDisclaimer=true (Accessed 11/10/2015), p. 9; "The Appraisal of Real Estate" Appraisal Institute, 14th Edition, Chicago, IL, 2013, p. 332, 335.; "Healthcare Valuation: Volume 2 - The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Hoboken, NJ: John Wiley & Sons, 2014, p. 26.

Premise of Value



Premise of Value

- The *premise of value* selected primarily depends on a consideration of whether *"…the business is worth more 'dead' than 'alive'…"*
- For business enterprises that that fail to generate sufficient net economic benefits to support the total invested capital of the business, the "[liquidation value] *might be* [the business's] *maximum potential value and the only usable indicator of value to the owners*"

"Chapter 2: Valuation Terminology and Methodology" By Jay Fishman, p. 2-43, in "Financial Valuation: Businesses and Business Interest" Edited by James Zukin, New York, NY: Maxwell Macmillan, 1990.; "PPC's Guide to Business Valuations" By Jay E. Fishman, FASA, Shannon P. Pratt, DBA, CFA, FASA, MCBA, CM&AA, MCBC, J. Clifford Griffith, MPA, CPA, and James R. Hitchner, CPA/ABV, ASA, Twenthy-fourth Edition, Fort Worth, TX: Thomson Reuters, 2014, p. 7.2-7.3.

Normalizing Adjustment Considerations Pertinent to Professional Practices

- **Level of Interest Normalizing Adjustments:** Revenues and expenses are to be reflective of what the typical buyer (i.e., buyer of a controlling or a minority interest) should expect to realize
- **Specific Examples for Physician Professional Practices:**
  - Typical expenses requiring Normalizing Adjustments for purposes of deriving cash flow related to a control/minority interest in a physician professional practice may include:
    - Owner's Discretionary Expenses (e.g., family members on a payroll, automobiles)
    - Office Rent Expense (if office space is leased from an entity with common ownership as the practice)
    - Gifts/charitable donations, or other non-operating expenses

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 473.

Sample Schedule 1: Normalizing Adjustments

	A	B	C	D	E	F	
		12/1/2014 - 11/30/2015	Common Size (1)	Adjustments	12/1/2014 - 11/30/2015 Adjusted	Common Size (1)	
1	**NET REVENUES**						1
2	Patient Fees	$29,992,173	95.04%		$29,992,173	95.04%	2
3	Pharmacy	$1,563,790	4.96%		$1,563,790	4.96%	3
4	**TOTAL REVENUES**	$31,555,963	100.00%		$31,555,963	100.00%	4
5	**NON-MD COMPENSATION EXPENSES**						5
6	**Compensation and Other Personnel Related Costs**						6
7	Non-Physician Providers	$2,224,796	7.05%		$2,224,796	7.05%	7
8	Support Staff	$10,354,728	32.81%	$0 (7)	$10,354,728	32.81%	8
9	Misc. Operating Cost	$163,067	0.52%		$163,067	0.52%	9
10	Depreciation and Amortization	$392,175	1.24%		$392,175	1.24%	10
11	Drug Supply	$4,406,359	13.96%		$4,406,359	13.96%	11
12	Insurance	$28,497	0.09%		$28,497	0.09%	12
13	Professional Liability Insurance	$475,230	1.51%		$475,230	1.51%	13
14	Outside Professional Fees	$59,046	0.19%		$59,046	0.19%	14
15	Medical and Surgical Supply	$640,973	2.03%		$640,973	2.03%	15
16	Building and Occupancy	$2,800,492	8.87%	$995,940 (2)	$3,796,432	12.03%	16
17	Admin Supplies and Services	$400,001	1.27%		$400,001	1.27%	17
18	Promotion and Marketing	$216,596	0.69%		$216,596	0.69%	18
19	Radiology and Imaging	$283,551	0.90%		$283,551	0.90%	19
20	Furniture and Equipment	$1,000,331	3.17%		$1,000,331.00	3.17%	20
21	Clinical Laboratory	$1,128,624	3.58%		$1,128,624	3.58%	21
22	Information Technology	$47,527	0.15%		$47,527	0.15%	22
23	**TOTAL NON-MD COMPENSATION EXPENSES**	$24,621,993	78.03%	$995,940	$25,617,933	81.18%	23
24	**INCOME FROM NON-MD COMPENSATION OPERATIONS**	$6,933,970	21.97%	($995,940)	$5,938,030	18.82%	24
25	**PHYSICIAN COMPENSATION EXPENSE**						25
26	Physician Salaries	$7,252,961	22.98%	$554,068 (3)	$7,807,029	24.74%	26
27	Physician Benefits	$1,444,795	4.58%	($401,025) (4)	$1,043,770	3.31%	27
28	**TOTAL PHYSICIAN COMPENSATION EXPENSE**	$8,697,756	27.56%	$153,043	$8,850,799	28.05%	28
29	**TOTAL OPERATING EXPENSES**	$33,319,749	105.59%	$1,148,983	$34,468,732	109.23%	29
30	**INCOME (LOSS) FROM OPERATIONS**	($1,763,786)	-5.59%	($1,148,983)	($2,912,769)	-9.23%	30
31	**OTHER INCOME**						31
32	Interest Income	$204,161	0.65%		$204,161	0.65%	32
33	Contracted Medical Services	$3,703,874	11.74%		$3,703,874	11.74%	33
34	Administrative Fees - AAA	$617,389	1.96%	($475,200) (8)	$142,189	0.45%	34
35	Administrative Fees - BBB	$19,595	0.06%		$19,595	0.06%	35
36	Other Revenues	$362,941	1.15%		$362,941	1.15%	36
37	Purchased Clerical Services	($206,851)	-0.66%		($206,851)	-0.66%	37
38	Purchased Medical Services - Cardiology	$33,934	0.11%		$33,934	0.11%	38
39	Purchased Medical Services - Dermatology	($35,376)	-0.11%		($35,376)	-0.11%	39
40	Purchased Medical Services - Radiology	($497,839)	-1.58%		($497,839)	-1.58%	40
41	Purchased Medical Services - Other	($1,625,758)	-5.15%		($1,625,758)	-5.15%	41
42	Gain from Investment in ACME Hospital, LLC	$363,465	1.15%	($363,465) (5)	$0	0.00%	42
43	Interest Expense - re:Inv in ACME Hospital, LLC	$0	0.00%		$0	0.00%	43
44	Gain (Loss) on Disposal of Equipment and Pharmacy	($9,720)	-0.03%	$9,720 (6)	$0	0.00%	44
45	**TOTAL OTHER INCOME**	$2,929,815	9.28%	($828,945)	$2,100,870	6.66%	45
	Personnel Services Agreement Revenue	$0		$475,200 (8)	$475,200		
46	**NET INCOME BEFORE INCOME TAX**	$1,166,029	3.70%	($1,502,728)	($336,699)	-1.07%	46
47	Income Tax Expense	$0	0.00%		$0	0.00%	47
48	**NET INCOME AFTER TAX**	$1,166,029	3.70%	($1,502,728)	($336,699)	-1.07%	48
49	**EBITDA**	$1,558,204	4.94%	($1,502,728)	$55,476	0.18%	49

91

Sample Schedule 1: Normalizing Adjustments Lines 25 - 28

	A	B	C	D		E	F	
		12/1/2014 - 11/30/2015	Common Size (1)	Adjustments		12/1/2014 - 11/30/2015 Adjusted	Common Size (1)	
25	**PHYSICIAN COMPENSATION EXPENSE**							25
26	Physician Salaries	$7,252,961	22.98%	$554,068	(3)	$7,807,029	24.74%	26
27	Physician Benefits	$1,444,795	4.58%	($401,025)	(4)	$1,043,770	3.31%	27
28	**TOTAL PHYSICIAN COMPENSATION EXPENSE**	$8,697,756	27.56%	$153,043		$8,850,799	28.05%	28

92

Normalizing Adjustment Considerations Pertinent to Professional Practices

- **Adjustment of Owner-Provider Compensation to Fair Market Value -** As required by Revenue Rulings 59-60 and 68-609, as well as set forth under the definition of FMV, which assumes a "hypothetical willing" buyer of the subject enterprise should be adjusted to a "reasonable amount for the services performed by the owner or partners engaged in the business." (See Sample 1, Lines 25-28)
- **Specific Examples of Normalizing Adjustments for Physician Professional Practices**
  - Typical steps for adjusting owner-provider's compensation to Fair Market Value should include the following:
    - Identifying the specific tasks, duties, responsibilities, and accountabilities (TDRAs) of the owner-provider
    - Determining the range of industry compensation for the owner-provider's production/inputs based on TDRAs of the owner-provider (See Sample Schedules 3 & 4)
    - Selecting FMV cost to replicate or replace the owner-provider's services (See Sample Schedule 2)

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 473.

Sample Schedule 2: FMV of Physician Compensation

	A		B
	Mean Industry Compensation per wRVU		
1	Mean Weighted Average Industry Compensation per wRVU	(1)	**$59.50**
2	Shareholder Physician wRVU Production for the TTM 11/30/15	(2)	131,204.40
3	**Mean Industry Total Compensation for Work RVU Productivity**	(2)	**$7,807,028.93**
4	Indicated FTE Status	(3)	24.35
5	Fair Market Value Physician Benefits per FTE	(4)	40,145.00
6	**Calculated Fair Market Value Total Physician Benefits**	(5)	**$977,473.66**

Notes:

1	Equals the FMV of Physician Compensation for wRVU. (See Schedule 4, Line 23).
2	See Schedule 3, Column E, line 27 for calculation of Total Physician wRVU Productivity for the TTM 11/30/15 period.
3	Indicated Full Time Employment Status based on wRVU output for SUBJECT ENTITY as compared to Industry. See Schedule 3 Physician Producitivity for calculation.
4	Source: Medical Group Management Association's Cost Survey for Multispecialty Practices 2010 Report based on 2009 Data
5	Equals Line 4 times line 5.

94

Sample Schedule 3: Physician Productivity

	A	B	C	D	E	F	G	H	
	Physician (1)	Physician Classification (1)	Specialty	4/1/15 - 11/30/15 wRVU Physician Productivity (2)	12/1/14 - 2/28/15 wRVU Physician Productivity (3)	TTM 11/30/15 wRVU Physician Productivity (4)	Industry Median wRVU Productivity (6)	Indicated FTE Status (7)	
1	Physician #1	Employee	Cardiology – Electrophysiology Physician	4,653.10	1,554.90	6,208.00	6,824.00	0.91	1
2	Physician #2	Employee	Cardiology – General Physician	2,775.00	875.90	3,650.90	4,955.00	0.74	2
3	Physician #3	Employee	Cardiology - Invasive-Interventional Physician	2,467.20	1,382.80	3,850.00	4,823.00	0.80	3
4	Physician #4	Employee	Cardiology – Invasive Physician	1,947.90	882.40	2,830.30	4,823.00	0.59	4
5	Physician #5	Employee	Cardiology – Non-invasive Physician	2,717.90	993.20	3,711.10	7,547.00	0.49	5
6	Physician #6	Shareholder	Cardiology – Non-invasive Physician	3,693.00	1,109.60	4,802.60	4,823.00	1.00	6
7	Physician #7	Shareholder	Cardiology – Electrophysiology Physician	1,200.60	419.40	1,620.00	4,640.00	0.35	7
8	Physician #8	Shareholder	Cardiology – General Physician	5,968.00	1,910.20	7,878.20	8,148.00	0.97	8
9	Physician #9	Shareholder	Cardiology - Invasive-Interventional Physician	3,076.80	800.90	3,877.70	4,955.00	0.78	9
10	Physician #10	Shareholder	Cardiology – Electrophysiology Physician	3,083.20	989.70	4,072.90	4,826.00	0.84	10
11	Physician #11	Shareholder	Cardiology – Non-invasive Physician	4,375.80	1,359.50	5,735.30	4,823.00	1.19	11
12	Physician #12	Shareholder	Cardiology – General Physician	3,514.50	1,206.20	4,720.70	4,826.00	0.98	12
13	Physician #13	Shareholder	Cardiology - Invasive-Interventional Physician	5,961.00	1,486.40	7,447.40	4,823.00	1.54	13
14	Physician #14	Shareholder	Cardiology – Invasive Physician	3,349.00	1,098.80	4,447.80	4,826.00	0.92	14
15	Physician #15	Shareholder	Cardiology – Electrophysiology Physician	865.00	0.00	865.00	4,823.00	0.18	15
16	Physician #16	Shareholder	Cardiology – Invasive Physician	5,021.20	1,507.10	6,528.30	4,823.00	1.35	16
17	Physician #17	Shareholder	Cardiology – General Physician	7,037.00	1,848.80	8,885.80	4,841.00	1.84	17
18	Physician #18	Shareholder	Cardiology - Invasive-Interventional Physician	4,555.20	1,790.00	6,345.20	6,824.00	0.93	18
19	Physician #19	Shareholder	Cardiology – General Physician	5,741.50	1,979.00	7,720.50	8,511.00	0.91	19
20	Physician #20	Shareholder	Cardiology – Invasive Physician	6,078.00	2,228.90	8,306.90	4,826.00	1.72	20
21	Physician #21	Shareholder	Cardiology - Invasive-Interventional Physician	5,435.90	2,012.60	7,448.50	4,826.00	1.54	21
22	Physician #22	Shareholder	Cardiology – Non-invasive Physician	2,404.00	898.50	3,302.50	4,640.00	0.71	22
23	Physician #23	Shareholder	Cardiology – General Physician	2,628.40	650.60	3,279.00	4,823.00	0.68	23
24	Physician #24	Shareholder	Cardiology – Electrophysiology Physician	2,824.80	1,096.00	3,920.80	6,824.00	0.57	24
25	Physician #25	Shareholder	Cardiology – General Physician	2,341.40	682.30	3,023.70	7,147.00	0.42	25
26	Physician #26	Shareholder	Cardiology – General Physician	5,246.60	1,478.70	6,725.30	4,823.00	1.39	26
27	Total			98,962.00	32,242.40	131,204.40	143,393.00	24.35	27

Notes:

1 Source: 'Current Physician List' received via email from ACME on 5/31/15.
2 Source: 3/1/10-11/30/2010 RVU's provided by ACME via email 5/31/15.
3 Source: 12/1/09-2/28/10 RVU's provided by ACME via email 5/31/15.
4 Equals the Physician Productivity for the 9 months prior to 11/30/2015 (Column D) plus the physician productivity for 12/1/2014 through 2/28/2015 (Column E).
5 Source: Medical Group Management Association 'Physician Compensation and Production Survey: 2015 Report Based on 2015 Data', median data for each specialty utilized.
6 Equals Column F divided by Column G

95

Sample Schedule 4: Physician Compensation Benchmarks

TABLE 1: Physicians TTM 11/30/15 Work RVU Productivity

		A	B
	Specialty	**TTM 11/30/2010 wRVU (1)**	**% of Total (2)**
1	Cardiology – Electrophysiology Physician	16687	12.72%
2	Cardiology – General Physician	45884	34.97%
3	Cardiology - Invasive-Interventional Physician	28969	22.08%
4	Cardiology – Invasive Physician	22113	16.85%
5	Cardiology – Non-invasive Physician	17552	13.38%
6	Total	131204	100.00%

Notes:

1 Source: 3/1/10-11/30/2010 RVU's provided by ACME via email 5/31/10.

2 Equals the percent of total productivity for each specialty.

Sample Schedule 4: Physician Compensation Benchmarks

TABLE 2: Indicated Range of Industry Compensation per Work RVU

	A	B	C	D	E	F	G	H	I	J	K	L	M
	Cardiology – Electrophysiology Physician	**Data Location**	**Survey Data Time Period**	**Data Stratification**	**Source Table # (1)**	**N =**	**Weight of Consideration (2)**	**25th Percentile**	**Median**	**Mean**	**75th Percentile**	**90th Percentile**	**Standard Deviation**
1	MGMA	National	2014	All	N/A	250	20.00%	$49.64	$58.97	$62.59	$74.54	$86.19	$21.27
2	MGMA	Southern	2014	All	N/A	49	20.00%	$39.80	$56.49	$55.83	$69.65	$81.51	$19.16
3	AMGA	National	2014	All	pg 81	239	20.00%	$47.15	$57.88	$63.84	$73.26	$85.04	N/A
4	SCA	National	2014	All	N/A	202	40.00%	$46.96	$55.73	$59.10	$69.37	N/A	$17.77
5	**Survey Weighted Average Cardiology – Electrophysiology Physician (3)**						**100.00%**	**$46.10**	**$56.96**	**$60.09**	**$71.24**	**$84.25**	**$18.99**
	Cardiology – General Physician	**Data Location**	**Survey Data Time Period**	**Data Stratification**	**Source Table # (1)**	**N =**	**Weight of Consideration (2)**	**25th Percentile**	**Median**	**Mean**	**75th Percentile**	**90th Percentile**	**Standard Deviation**
6	AMGA	National	2014	All	pg 82	921	20.00%	$47.03	$60.38	$67.32	$81.13	$99.56	N/A
7	SCA	National	2014	All	N/A	891	80.00%	$48.87	$58.52	$62.79	$73.20	N/A	$20.55
8	**Survey Weighted Average Cardiology – General Physician (3)**						**100.00%**	**$48.50**	**$58.89**	**$63.70**	**$74.79**	**$99.56**	**$20.55**
	Cardiology - Invasive-Interventional Physician	**Data Location**	**Survey Data Time Period**	**Data Stratification**	**Source Table # (1)**	**N =**	**Weight of Consideration (2)**	**25th Percentile**	**Median**	**Mean**	**75th Percentile**	**90th Percentile**	**Standard Deviation**
9	MGMA	National	2014	All	N/A	658	20.00%	$51.22	$62.77	$65.56	$76.92	$92.02	$19.83
10	MGMA	Southern	2014	All	N/A	195	20.00%	$47.64	$58.36	$60.96	$71.27	$88.33	$20.43
11	AMGA	National	2014	All	pg 79	727	20.00%	$50.40	$62.89	$68.20	$80.92	$93.97	N/A
12	SCA	National	2014	All	N/A	511	40.00%	$51.65	$61.15	$64.57	$74.75	N/A	$18.31
13	**Survey Weighted Average Cardiology - Invasive-Interventional Physician (3)**						**100.00%**	**$50.51**	**$61.26**	**$64.77**	**$75.72**	**$91.44**	**$19.22**
	Cardiology – Invasive Physician	**Data Location**	**Survey Data Time Period**	**Data Stratification**	**Source Table # (1)**	**N =**	**Weight of Consideration (2)**	**25th Percentile**	**Median**	**Mean**	**75th Percentile**	**90th Percentile**	**Standard Deviation**
14	MGMA	National	2014	All	N/A	266	25.00%	$52.08	$63.05	$68.60	$80.71	$101.02	$22.75
15	MGMA	Southern	2014	All	N/A	104	25.00%	$49.44	$62.82	$66.99	$84.49	$98.86	$22.87
16	SCA	National	2014	All	N/A	151	50.00%	$52.67	$58.36	$59.80	$66.26	N/A	$12.74
17	**Survey Weighted Average Cardiology – Invasive Physician (3)**						**100.00%**	**$51.72**	**$60.65**	**$63.80**	**$74.43**	**$99.94**	**$17.78**
	Cardiology – Non-invasive Physician	**Data Location**	**Survey Data Time Period**	**Data Stratification**	**Source Table # (1)**	**N =**	**Weight of Consideration (2)**	**25th Percentile**	**Median**	**Mean**	**75th Percentile**	**90th Percentile**	**Standard Deviation**
18	MGMA	National	2014	All	N/A	572	20.00%	$50.37	$64.07	$67.43	$78.65	$99.75	$23.28
19	MGMA	Southern	2014	All	N/A	125	20.00%	$41.70	$59.60	$60.95	$71.33	$97.37	$23.57
20	AMGA	National	2014	All	pg 80	103	20.00%	$49.63	$61.11	$68.59	$77.65	$93.29	N/A
21	SCA	National	2014	All	N/A	75	40.00%	$49.59	$55.53	$57.71	$67.70	N/A	$12.70
22	**Survey Weighted Average Cardiology – Non-invasive Physician (3)**						**100.00%**	**$48.18**	**$59.17**	**$62.48**	**$72.61**	**$96.80**	**$18.06**
23	**Weighted Average Industry Compensation per Work RVU (4)**							**$49.14**	**$59.50**	**$63.33**	**$74.19**	**$95.51**	**$19.26**

Notes:

N = Number of Providers

wRVU = work Relative Value Unit

1 Table number or page within survey where the data is obtained.

2 Survey weight of consideration based upon survey sample size, reported geographical proximity to SUBJECT ENTITY, and CONSULTANT's subjective assessment of the survey's reliability and applicability to the PHYSICIAN and the SUBJECT SERVICES.

3 Survey weighted average cash compensation per wRVU Provider based on the weight of consideration in Column G.

4 Equals the sum of the survey weighted compensation per wRVU for each specialty times the percent of total procedures for each specialty from Table 1, Column B.

Sources

Medical Group Management Association (MGMA) "Physician Compensation and Production Survey 2015 Report Based on 2014 Data" [HCC WP 3].

American Medical Group Association (AMGA) "2015 Medical Group Compensation and Financial Survey, Based on 2014 Data" [HCC WP 1].

It should be noted that AMGA reports 80th percentile and 20th percentile instead of 75th percentile and 25th percentile.

Sullivan Cotter and Associates, Inc. (SCA) "2015 Physician Compensation and Productivity Survey" [HCC WP 2].

97

Normalizing Adjustment Considerations Pertinent to Professional Practices

- **Adjustment for Non-Recurring and Extraordinary Revenue and Expenses -** Revenue and expenses that are non-recurring and/or extraordinary should be identified and adjusted appropriately to reflect the ongoing operations of the subject professional practice
  - Typically non-recurring and/or extraordinary revenues and expenses in a physician professional practice include:
    - Medicare payment settlements
    - Legal expenses related to the defense of medical malpractice
    - Certain furniture and equipment purchases
    - Gains or losses on asset sales (See Sample Schedule 1, Lines 42 and 44)
    - Consulting expenses related to non-recurring projects

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 473.

Sample Schedule 1: Normalizing Adjustments Lines 42 - 45

	A	B	C	D		E	F	
		12/1/2014 - 11/30/2015	Common Size (1)	Adjustments		12/1/2014 - 11/30/2015 Adjusted	Common Size (1)	
42	Gain from Investment in ACME Hospital, LLC	$363,465	1.15%	($363,465)	(5)	$0	0.00%	42
43	Interest Expense - re:Inv in ACME Hospital, LLC	$0	0.00%			$0	0.00%	43
44	Gain (Loss) on Disposal of Equipment and Pharmacy	($9,720)	-0.03%	$9,720	(6)	$0	0.00%	44
45	**TOTAL OTHER INCOME**	$2,929,815	9.28%	($828,945)		$2,100,870	6.66%	45

99

Normalizing Adjustment Considerations Pertinent to Professional Practices

- In addition to the typical accrual adjustments required to convert cash basis financial statements to accrual basis (e.g., timing of revenue and estimating the practice's accounts receivable and accounts payable) other revenue, expenses, assets, and liabilities that may require adjustment for timing recognition may include:
  - Medicare payment settlements
  - Consideration of capitation and co-pay reimbursement
  - Value of medical supply an other inventory on-hand
  - Contingent liabilities (e.g., pending medical malpractice claims)
  - Incurred But Not Reported (IBNR) liabilities
  - FMV of key person life insurance policies

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 473.

100

Revenue Stream Considerations Pertinent to Professional Practices

- Traditionally, revenue for physician professional practices has been based on the Fee-for-Service convention, which is driven by patient volume, based on changes in the utilization demand/market share for services provided
- Typical steps for projecting patient volume of a professional practice include:
  - Review and analyze historical patient volume trends and compare to industry benchmarks (See Sample Schedule 3)
  - Obtain demographic projections of the subject practice's market service area
  - Research new technologies and treatments for the injuries, ailments, or diseases treated by the providers of the subject enterprise, and assess their impact on future patient volume

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 473.

101

Revenue Stream Considerations Pertinent to Professional Practices

- Typical steps for projecting patient volume of a professional practice include (cont'd):
  - Obtain projected incidence and prevalence of specific injuries, ailments, or diseases treated by the subject enterprise
  - Review the payor contracts of the subject professional practice and determine likeliness of renewal and impact of non-renewal
  - Assess the patient volume capacity of the subject practice
  - Assess the competitive landscape of the market service area
  - Conduct management interviews and assess the achievability of revenue projections

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 473.

102

Revenue Stream Considerations Pertinent to Professional Practices

- Typical steps for projecting reimbursement yield of a physician professional practice include:
  - Review and analyze historical trends in the subject professional practice's payor mix
  - Review payor contracts of the subject enterprise, and determine reimbursement methodologies of each payor (e.g., % of Medicare, discounted fee-for-service, capitation, shared savings)
  - Research historical (and projected if available) trends in government payor reimbursement for the services provided at the subject enterprise

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 473.

Revenue Stream Considerations Pertinent to Professional Practices

- Typical steps for projecting reimbursement yield of a physician professional practice include (cont'd):
  - Research historical (and projected if available) trends in commercial and other payor reimbursement for the services provided at the subject enterprise
  - Review changes in CMS coding procedures for the services rendered by the providers of the subject enterprise, i.e., CMS annually updates the Physician Fee Schedule, and periodically bundles, or rolls-up, CPT codes. For example, in 2010 three former SPECT related CPT codes (i.e., 78465 - SPECT myocardial perfusion imaging multiple study, 78480, and 78478 - add on codes for wall motion and ejection fraction) were combined into one new CPT code (i.e., 78452)

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 473.

104

Pertinent Valuation Considerations: Freestanding Outpatient Enterprises

- **Scope of Services**
  - Performance of higher yield procedures
    - May produce more net economic benefit
  - Performance of *more procedures*
    - *Ma*y yield economies of scale that increase the amount of net economic benefit generated
  - Performance of *different types of procedures*
    - May diversify reimbursement risk and thereby decrease the required return on investment in the subject freestanding outpatient facility

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 473.

105

Pertinent Valuation Considerations: Freestanding Outpatient Enterprises

- **Payor Mix**
  - Commercial payors typically pay higher rates than government payors
  - Out-of-Network reimbursement is generally higher than in-network reimbursement
    - Declining reimbursement of out-of-network charges

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 473.

106

Pertinent Valuation Considerations: Freestanding Outpatient Enterprises

- Capacity for Freestanding Outpatient Enterprises
  - May retrain an enterprise
  - Inquire as to the enterprise's maximum capacity
  - Different metrics of growth
- Capital expense burden
  - Must be projected to accommodate increases in volume
- Operating expense burden
  - Must be projected to accommodate increases in volume

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 559.

107

Pertinent Valuation Considerations: Home Health Enterprises

- Scope of Services
  - Chronic conditions generate steadier revenue streams
- Payor Mix
  - Medicare is the largest payor for Home Health Enterprises
- Capacity
  - Labor based metrics are utilized since physical space metrics not pertinent
- Operating Expenses
  - Labor cost is the largest expense and benchmarking this cost often yields valuable insights into the subject home health enterprise

"*Healthcare Valuation*" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, John Wiley & Sons Inc., 2014, p. 577-580.

Value in Use

- *Value in use* can be defined as *"value in continued use, as a mass assemblage of income-producing assets, as a going-concern business enterprise."*
- All economic values are variations of Value in Use
- Value can be attributed to the benefits and/or satisfaction derived from:
  - Use of properties & services
  - Use & consumption of goods
  - Use of intangibles
  - Use of money derived from exchanging the property

"Valuing a Business: The Analysis and Appraisal of Closely Held Companies" By Shannon Pratt and Alina Niculita, Fifth Edition, New York, NY: McGaw Hill, 2008, p. 47.; "Appraisal and Valuation: An Interdisciplinary Approach, Volume I," By Richard Rickert, Ph.D. Washington, D.C.: American Society of Appraisers, International Valuation Sciences Institute, 1987, Ch. 3, p. 6-7.

Value in Exchange

- In business valuation, *Value in Exchange* is typically considered under four separate and distinct levels:
  - *As an orderly disposition of the mass assemblage of the assets*
  - *As an orderly disposition of the assets on a piecemeal basis*
  - *As a forced liquidation of the mass assemblage of the assets*
  - *As a forced liquidation of the assets on a piecemeal basis*

"Valuing a Business: The Analysis and Appraisal of Closely Held Companies" By Shannon Pratt and Alina Niculita, Fifth Edition, New York, NY: McGaw Hill, 2008, p. 47

Orderly Disposition of the Mass Assemblage of the Assets

- *Value in Exchange, As an Orderly Disposition of the Mass Assemblage of the Assets*
  - *"value in place as part of a mass assemblage of assets, but not in current use in the production of income, and not as a going concern business enterprise."*

"Valuing a Business: The Analysis and Appraisal of Closely Held Companies" By Shannon Pratt and Alina Niculita, Fifth Edition, New York, NY: McGaw Hill, 2008, p. 47.

Orderly Disposition of the Assets on a Piecemeal Basis

- *Value in exchange, on a piecemeal basis (not part of a mass assemblage of assets), as part of an orderly disposition;*
  - This premise contemplates that all of the assets of the business enterprise will be sold individually
  - That they will enjoy normal exposure to their appropriate secondary market

"Valuing a Business: The Analysis and Appraisal of Closely Held Companies" By Shannon Pratt and Alina Niculita, Fifth Edition, New York, NY: McGaw Hill, 2008, p. 47.

Forced Liquidation of the Mass Assemblage of the Assets

- Value in place as part of a mass assemblage of assets, but not in current use in the production of income, and not as a going concern business enterprise
- This premise contemplates that the assets will experience less than normal exposure to their appropriate secondary market

Forced Liquidation of the Assets on a Piecemeal Basis

- *Value in exchange, on a piecemeal basis (not part of a mass assemblage of assets), as part of a forced liquidation*
  - This premise contemplates that the assets of the business enterprise will be sold individually
  - That they will experience less than normal exposure to their appropriate secondary market

"Valuing a Business: The Analysis and Appraisal of Closely Held Companies" By Shannon Pratt and Alina Niculita, Fifth Edition, New York, NY: McGaw Hill, 2008, p. 48.

114

Types of Economic Benefits

- Business enterprises *"…are continuous money loops of incoming and outgoing cash flows"*
- The net periodic economic benefit (e.g., cash flow) for any company is:

	Gross Economic Benefits
-	Total Economic Costs
	Net Periodic Economic Benefit

"Business Valuation: Using Financial Analysis to Measure a Company's Value" By Guy Parmentier and Bart Cuypers, Cambridge, UK: Intersentia, 2012, p. 155.

Types of Economic Benefits

- *Gross economic benefits* and *economic cost burdens* resulting from *economic activities* undertaken by a business classified as either:
  - *Internal enterprise benefits (or cost burdens)* which accrue only to a business and its owners undertaking an *economic activity*
  - *External social benefits (or cost burdens)* which accrue to the community within which a business undertakes an economic activity

"Publication 535: Business Expenses For Use in Preparing 2014 Returns" Internal Revenue Service, 2/12/2015, https://www.irs.gov/pub/irs-pdf/p535.pdf (Accessed 11/3/2015).; "Public Finance and Public Policy" By Jonathan Gruber, New York, NY: Worth Publishers, 2007, p. 121, 170.; "Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 946-947.

Highest and Best Use of Firm Assets

- In evaluating the *highest and best use* of each of the firm's assets only the *incremental cash flows (net economic benefits)* of an individual resource should be considered
- This can also be considered as the difference between a business enterprise's net periodic economic benefits with or without an asset

"Fundamentals of Corporate Finance" By Stephen Ross, et al., Second Edition, Boston, MA: Irwin, 1993, p. 256.

Gross Economic Benefits

- *Gross economic benefits* are the:
  - Inflows to a business enterprise associated with any *economic activity*
  - Prior to consideration of any related *economic costs*

"Publication 535: Business Expenses For Use in Preparing 2014 Returns" Internal Revenue Service.

Reduction of Economic Cost Burdens

- *Economic cost burdens* are the outflows from a business enterprise associated with a specific *economic activity*, which generates the related *gross economic benefits*
- There are two kinds of *economic cost burdens*:
  - *Economic operating cost burdens*
  - *Economic capital cost burdens*
- *Economic activities*, which reduce or eliminate *economic cost burdens*, are identical to an *economic benefit* to the business enterprise relieved of the *economic cost burdens*

"Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 77, 79.; "Cost Approach of Health Care Entity Intangible Asset Valuation" By Robert Reilly, Journal of Health Care Finance, Vol. 39, No. 2 (Winter 2012), p. 11.

Economic Operating Cost Burdens

- Requisite expenses associated directly with the *economic activities* that generate the *gross economic benefits*
- Generally consumed in the productive process
- Examples include:
  - Salaries paid to employees
  - Cost of goods sold

"Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 77.

Economic Capital Cost Burdens

- Expenses associated with the capital required to undertake an economic activity that are *not consumed in the productive process*
- Examples include:
  - Purchases of tangible personal property
  - Investments in working capital

"Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 79.

Non-Monetary Social Benefits

- *Non-monetary social benefits* are the gains in *utility* which accrue to the community in which an organization operates
- These spillover benefits can arise from the activities of both a for-profit or not-for-profit enterprise
- More often associated with a not-for-profit enterprise's accomplishment of their stated charitable mission

Highest and Best Use in Presence of Sufficient Net Economic Benefit

- If an enterprise produces sufficient *net economic benefits* to support the resources invested in the business
  - Utilize *value in use premise*
  - Under these conditions the sum of the individual discrete assets is likely to be far less than the value of the *whole* business enterprise

"The Valuation of Property: A Treatise on the Appraisal of Property for Different Legal Purposes – Volume I" By James Bonbright, New York, NY: McGraw Hill, 1937, p. 76.

Highest and Best Use in Absence of Sufficient Net Economic Benefit

- If an enterprise fails to produce sufficient *net economic benefits* to support the total capital invested in the business
  - Utilize a *value in exchange premise of value* to appraise the assets of the business
  - Under these conditions:
    - *"…the sum of the present worth of the net proceeds from…[a sale] of…[the] assets…represents the lowest limit of value..."* for a business enterprise

"Chapter 2: Valuation Terminology and Methodology" By Jay Fishman, p. 2-42 -2-43, in "Financial Valuation: Businesses and Business Interest" Edited by James Zukin, New York, NY: Maxwell Macmillan, 1990.

Highest and Best Use in Absence of Sufficient Net Economic Benefit

- If an enterprise fails to produce sufficient *net economic benefit* to support the human resources required to operate the business
  - Utilize *value in exchange premise of value* to appraise the *services* provided by the human resources
  - Under these conditions the highest price for these *services* is employment by a third party

"Does Entrepreneurship Pay? An Empirical Analysis of Returns to Self-Employment" By Barton Hamilton, Journal of the Political Economy, Vol. 108, No. 3 (June 2000), p. 604.

Case Studies: Applying Highest and Best Use

- The concept of *highest and best use* is applied daily in the *real world* through two primary methods of analysis:
  - *Merger analysis:* Evaluates whether bringing together two pools of resources results in a higher value than two separate pools of resources
  - *Divestiture analysis*: Evaluates whether splitting an existing single pool of resources into two separate pools of sources results in a higher value than the existing single pool of assets.

"Maximizing Corporate Value through Mergers and Acquisitions: A Strategic Growth Guide" By Patrick Gaughan, Hoboken, NJ: John Wiley & Sons, 2013, p. 53; "Valuation: Measuring and Managing the Value of Companies" By Tom Copeland et. al., Second Edition, New York, NY: John Wiley & Sons, 1995, p. 340-342.

Case Study 1: Pixar

- Pixar Company Background
  - Formed in 1986 when Steve Jobs purchased the computer division of Lucasfilm and incorporated it as a separate company
  - By December 31, 2005, Pixar had evolved into a *"…digital animation studio with the creative, technical and production capabilities to create animation feature films"* and successfully *"…created and produced six full-length computer-animation feature films"*

"Pixar Form 10-K for the Fiscal Year Ended December 31, 2005: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934" Securities and Exchange Commission, 12/31/2005, http://www.sec.gov/Archives/edgar/data/1002114/000119312506047278/d10k.htm (Accessed 11/4/2015), p. 4.

Case Study 1: Pixar

Pixar Movies Released or in Production as of 12/31/2005

	A	B
	Film	**Release Date**
1	Toy Story	November 1995
2	A Bug's Life	November 1995
3	Toy Story 2	November 1995
4	Monsters, Inc.	November 1995
5	Finding Nemo	May 2003
6	The Incredibles	November 2004
7	Cars	June 2006
8	Ratatouille	Summer 2007

"Pixar Form 10-K for the Fiscal Year Ended December 31, 2005: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934," Securities and Exchange Commission, 12/31/2005, http://www.sec.gov/Archives/edgar/data/1002114/000119312506047278/d10k.htm (Accessed 11/4/2015).

Case Study 1: Pixar

- In developing and producing feature films, Pixar leveraged the following resources:
  - Internally developed computer animation software
  - A talented assembled workforce of innovative animators
  - Compelling stories and enduring characters

"Pixar Form 10-K for the Fiscal Year Ended December 31, 2005: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934" Securities and Exchange Commission, 12/31/2005, http://www.sec.gov/Archives/edgar/data/1002114/000119312506047278/d10k.htm (Accessed 11/4/2015), p. 4-5.

Case Study 1: Pixar

- Pixar's ability to monetize these resources was limited to the following four channels:
  - Animated feature films
  - Home videos
  - Television licensing fees
  - Merchandise and interactive game licensing fees

"Pixar Form 10-K for the Fiscal Year Ended December 31, 2005: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934" Securities and Exchange Commission, 12/31/2005, p. 5-7.

Case Study 1: Pixar

- Disney Company Background:
  - Walt and Roy Disney founded the Walt Disney Company on October 16, 1923, to produce cartoons
  - By October 1, 2005, Disney had evolved into:
    - *"a diversified worldwide entertainment company with operations in four business segments…"*

"Disney History" Disney, 2015, https://d23.com/disney-history/ (Accessed 11/4/2015).; "The Walt Disney Company Form 10-K for the Fiscal Year Ended October 1, 2005: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934" Securities and Exchange Commission, 10/1/2005, http://www.sec.gov/Archives/edgar/data/1001039/000095014805000128/v14978e10vk.htm (Accessed 11/4/2015), p. 1.

Case Study 1: Pixar

- Disney Business Segments: Media Networks
  - Operates the following:
    - Domestic broadcast television network
    - Domestic television stations
    - Cable/satellite networks and international broadcast operations
    - Television production and distribution
    - Domestic broadcast radio networks and stations and internet operations

"Disney History" Disney, 2015, https://d23.com/disney-history/ (Accessed 11/4/2015).; "The Walt Disney Company Form 10-K for the Fiscal Year Ended October 1, 2005: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934" Securities and Exchange Commission, 10/1/2005, http://www.sec.gov/Archives/edgar/data/1001039/000095014805000128/v14978e10vk.htm (Accessed 11/4/2015), p. 1.

Case Study 1: Pixar

- Disney Business Segments: Parks and Resorts
  - Operates the following:
    - Walt Disney World Resort and Disney Cruise Line
    - Disneyland Resort in California
    - ESPN Zone facilities in several states
    - Disneyland Resort Paris in France
    - Hong Kong Disneyland

"Disney History" Disney, 2015, https://d23.com/disney-history/ (Accessed 11/4/2015).; "The Walt Disney Company Form 10-K for the Fiscal Year Ended October 1, 2005: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934" Securities and Exchange Commission, 10/1/2005, http://www.sec.gov/Archives/edgar/data/1001039/000095014805000128/v14978e10vk.htm (Accessed 11/4/2015), p. 11.

Case Study 1: Pixar

- Disney Business Segments: Studio Entertainment
  - Produces and acquires the following:
    - Live-action and animated motion pictures
    - Animated direct-to-video programming
    - Musical recordings
    - Live stage plays

"Disney History" Disney, 2015, https://d23.com/disney-history/ (Accessed 11/4/2015).; "The Walt Disney Company Form 10-K for the Fiscal Year Ended October 1, 2005: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934" Securities and Exchange Commission, 10/1/2005, http://www.sec.gov/Archives/edgar/data/1001039/000095014805000128/v14978e10vk.htm (Accessed 11/4/2015), p. 11.

Case Study 1: Pixar

- Disney Business Segments: Consumer Products
  - Sells a variety of products through partnerships with:
    - Licensees
    - Manufacturers
    - Publishers
    - Retailers

"Disney History" Disney, 2015, https://d23.com/disney-history/ (Accessed 11/4/2015).; "The Walt Disney Company Form 10-K for the Fiscal Year Ended October 1, 2005: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934" Securities and Exchange Commission, 10/1/2005, http://www.sec.gov/Archives/edgar/data/1001039/000095014805000128/v14978e10vk.htm (Accessed 11/4/2015), p. 11.

Case Study 1: Pixar

- Highest and Best Use of Pixar's Resources
  - Disney concluded highest and best use of Pixar's resources was by global entertainment company
  - Disney could leverage Pixar's intellectual property across a:
    - *"platform…[of] video games, broadband and wireless, as well as traditional media outlets, including theme parks, consumer products, and live stage plays,"*

"Disney History" Disney, 2015, https://d23.com/disney-history/ (Accessed 11/4/2015).; "The Walt Disney Company Form 10-K for the Fiscal Year Ended October 1, 2005: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934" Securities and Exchange Commission, 10/1/2005, http://www.sec.gov/Archives/edgar/data/1001039/000095014805000128/v14978e10vk.htm (Accessed 11/4/2015), p. 11.

Case Study 1: Pixar

- Highest and Best Use of Pixar's Resources
  - In the highest and best use assets of Pixar were worth 33% more
  - By utilizing Pixar's resources in their *highest and best use*, Disney was able to *"…transform our world."*

"The Great Remix: Why Mergers Are Booming" By Ben Gomes-Casseres, Huffington Post, 11/1/2015, http://www.huffingtonpost.com/ben-gomescasseres/the-great-remix-why-merge_b_8445144.html (Accessed 11/4/2015).

Case Study 2:
Carl Icahn's Takeover of Trans Word Airlines (TWA)

- Trans World Airlines Company Background:
  - Trans World Airlines (TWA) was founded in April 1926 as Western Air Express to operate an air mail route from Los Angeles to Salt Lake City
  - By 1985, TWA had grown into the fourth largest airline in the US with routes across the US and around the world

"TWA History" TWA Museum at 10 Richards Road, 12/11/2013, http://twamuseumat10richardsroad.org/htdocs/twahistory2.htm (Accessed 11/5/2015).

Case Study 2:

Carl Icahn's Takeover of Trans Word Airlines (TWA)

- Carl Icahn's Background:
  - Born on February 16, 1936 in Queens, New York
  - Graduated from Princeton University in 1957 and dropped out of New York University's School of Medicine after 3 years
  - In 1961, Icahn went to work on Wall Street at Dreyfus & Company before founding his own firm, Icahn & Co, in 1968

Carl C. Icahn" Biogragphy.com, 2015, http://www.biography.com/people/carlcicahn9348875#profile (Accessed 11/5/2015).
"The Greatest Investors: Carl Icahn" Investopedia, 2015, http://www.investopedia.com/university/greatest/carlicahn.asp (Accessed 11/5/2015).

Case Study 2:
Carl Icahn's Takeover of Trans Word Airlines (TWA)

- Carl Icahn's Background:
  - Beginning in 1979, he started acquiring sizable positions in companies with the intent to:
    - Force management to liquidate the firm
    - Sell the firm to another company
    - Resell his stock to the company at an above-market price
  - By 1985, Icahn had successfully *raided* 16 companies

Carl C. Icahn" Biogragphy.com, 2015, http://www.biography.com/people/carlcicahn9348875#profile (Accessed 11/5/2015).
"The Greatest Investors: Carl Icahn" Investopedia, 2015, http://www.investopedia.com/university/greatest/carlicahn.asp (Accessed 11/5/2015).

Case Study 2:
Carl Icahn's Takeover of Trans Word Airlines (TWA)

- Highest and Best Use of TWA's Assets
  - On September 26, 1985, Icahn acquired a controlling interest in TWA for $440 million
  - Between 1985 and 1992, Icahn systematically sold some of TWA's assets

"Icahn on T.W.A. Woe: 'We're at Crossroads'" by Agis Salpukas, New York Times, 2/10/1990, http://www.nytimes.com/1990/02/10/business/icahnontwawoewereatcrossroads.html?pagewanted=all (Accessed 11/5/2015).

Case Study 2:
Carl Icahn's Takeover of Trans Word Airlines (TWA)

TWA Assets Sold by Carl Icahn

	A	B	C	D
	Asset	**Purchaser**	**Sale Price**	**Sale Date**
1	Equity Stake in TWA's reservation system	Northwest Airlines	$150 million	1986
2	Philadelphia-to-London Route	US Air	$50 million	1988
3	Chicago-to-London Route	American Airlines	$195 million	1990
4	8 Lockheed L-1011s and 3 Boeing 747s	Not Disclosed	$210 million	1990
5	US-to-London Routes	American Airlines	$445 million	1991
6	Total Assets Sold		$1,050 million	

"When Carl Icahn Takes Over, He Really Takes Over," By Carol Jouzaitis, Chicago Tribune, 10/12/1986, http://articles.chicagotribune.com/1986-10-12/business/8603160923_1_trans-world-airline-twa-machinists-unions (Accessed 11/5/2015).; "TWA History," TWA Museum at 10 Richards Road, 12/11/2013, http://twamuseumat10richardsroad.org/htdocs/twahistory2.htm (Accessed 11/5/2015).; "Icahn on T.W.A. Woe: 'We're at Crossroads'," by Agis Salpukas, New York Times, 2/10/1990, http://www.nytimes.com/1990/02/10/business/icahnontwawoewereatcrossroads.html?pagewanted=all (Accessed 11/5/2015); "Carl Icahn Fast Facts," CNN, 8/21/2015, http://www.cnn.com/2015/08/21/us/carlicahnfastfacts/ (Access 11/5/2015); "TWA – Death of a Legend," By Elaine Grant, St. Louis Magazine, 7/28/2006, http://www.stlmag.com/TWA-Death-Of-A-Legend/ (Accessed 11/5/2015).

Case Study 2:
Carl Icahn's Takeover of Trans Word Airlines (TWA)

- Highest and Best Use of TWA's Assets
  - By utilizing TWA's assets in their *highest and best use* (*in exchange, as an orderly disposition of the assets on a piecemeal basis*), Icahn was able to generate $610 million in investor wealth.

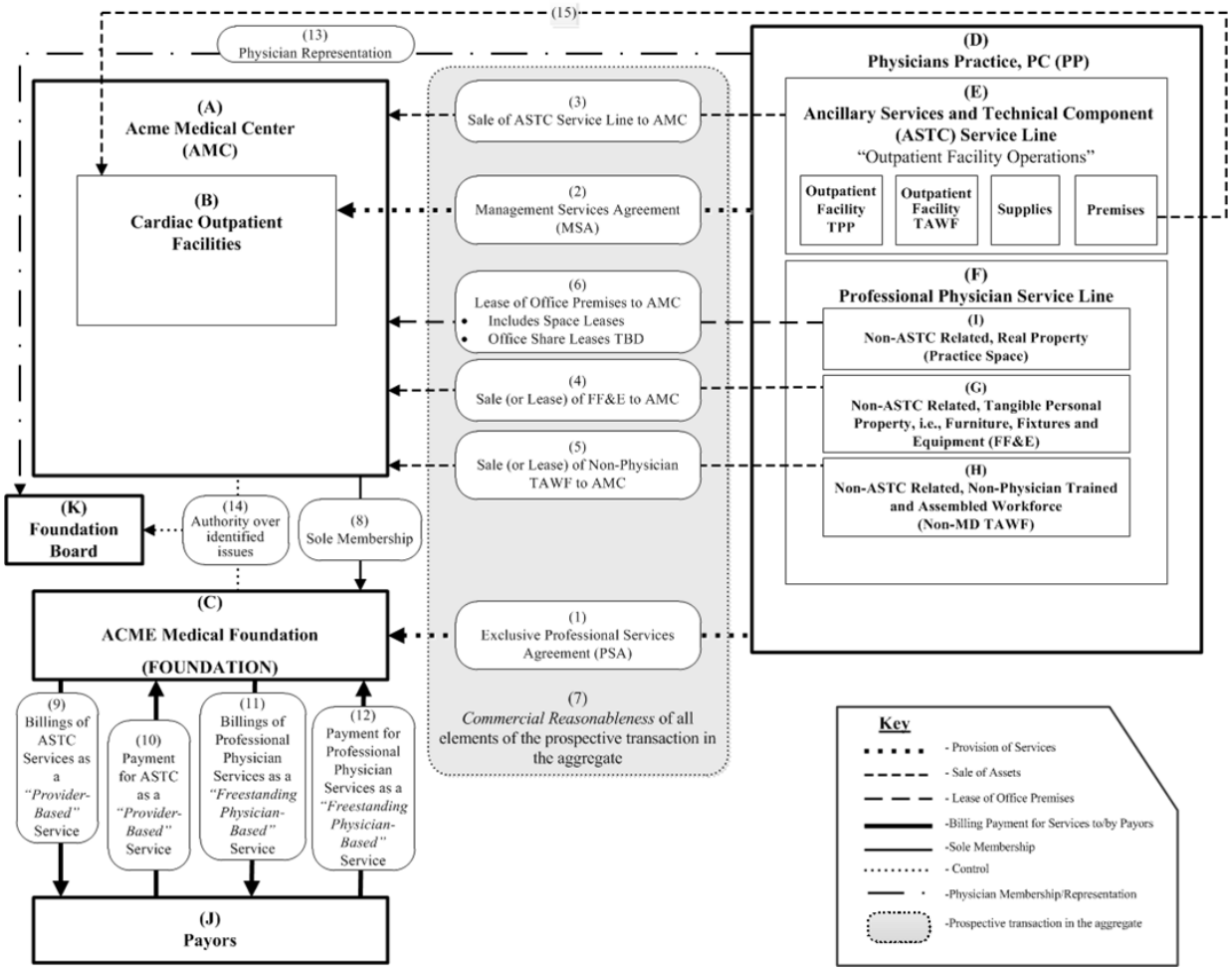
"Icahn on T.W.A. Woe: 'We're at Crossroads'" by Agis Salpukas, New York Times, 2/10/1990, http://www.nytimes.com/1990/02/10/business/icahnontwawoewereatcrossroads.html?pagewanted=all (Accessed 11/5/2015).

Case Study 3:
Cardiology Physician Practice Services and Assets

- Many cardiology physician practices are owned by individual physicians and operate two types of service lines:
  - *Ancillary Services and Technical Component (ASTC) service lines*
  - *Professional service lines*

"Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 413.

Case Study 3:
Cardiology Physician Practice Services and Assets



Case Study 3:
Cardiology Physician Practice Services and Assets

- In providing both the *ASTC services* and the *Professional services*, most cardiology physician practices utilize the following *Tangible Assets:*
  - *Tangible real property*
  - *Tangible personal property*

Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 413.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Intangible Assets utilized include:
  - *Payor related intangible assets*
  - *Human capital-related intangible assets*
  - *Intellectual property-related intangible assets*
  - *Operation and location-related intangible assets*
  - *Governance or legal structure related intangible assets*

Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 413.

Case Study 3:

Cardiology Physician Practice Services and Assets

- Intangible Assets utilized also include:
  - *Marketing and business development-related intangible assets*
  - *Regulatory or legal-related intangible assets*
  - *Financial or revenue stream-related intangible assets*
  - *Technology-related intangible assets*
  - *Patient-related intangible assets*
  - *Goodwill*

Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 413.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Highest and Best Use of Cardiology Physician Practice Assets:
- In many cases the *pool of resources* that comprise a cardiology physician practice do *not* produce sufficient *net economic benefits* to support the resources invested in the business as a *going concern* business enterprise

Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 413.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Highest and Best Use of Cardiology Physician Practice Assets:
- A valuation analyst *"must investigate the possibility that the business enterprise may have a higher value by liquidation of all or part of the enterprise than by continued operation as is"*

"2014-2015 Uniform Standards of Professional Appraisal Practice" The Appraisal Foundation, 2014, p. U-62.

Case Study 3:

Cardiology Physician Practice Services and Assets

- Highest and Best Use of Cardiology Physician Practice Assets:
- As with any business that offers a portfolio of services contained within a single enterprise *strategic decisions take place at the business-unit level*
- An analysis of each business unit is necessary to ensure that the company is taking advantage of all conceivable value enhancement, either internal or external

"Valuation: Measuring and Managing the Value of Companies" By Tom Copeland et. al., Second Edition, New York, NY: John Wiley & Sons, 1995, p. 315-316.

Case Study 3:
Cardiology Physician Practice Services and Assets

- ASTC Service Line
  - A valuation analyst must consider all *uses* of the resources related to the *ASTC Service Line* of a cardiology physician practice that are:
    - *Legally Permissible*
    - *Socially Acceptable*
    - *Physically Possible*
    - *Financially Feasible*

"Chapter 3: The Principles and Concepts of Valuation: Theory of Utility and Value, Value Influences, and Value Concepts" p. 55, in "Appraisal and Valuation: An Interdisciplinary Approach" By Richard Rickert, Washington, DC: American Society of Appraisers, 1987.

Case Study 3:
Cardiology Physician Practice Services and Assets

- ASTC Service Line
  - In most instances, the *majority* (if not all) of the *gross economic benefits* generated by the *ASTC Service Line* of a cardiology physician practice are due to *referrals* of the physician owners
  - Because of the *prohibition* against paying for *referrals*, a valuation analyst must determine the *net economic benefits* in the absence of the referrals from the current physician owners

"Utilizing the Income Approach to Appraise Outpatient Enterprises" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, CVA, CM&AA, and Todd Zigrang, MBA, MHA, FACHE, ASA, National Association of Certified Valuators and Analyst QuickRead, 9/2/2015, http://quickreadbuzz.com/2015/09/02/utilizing-the-income-approach-to-appraise-outpatient-enterprises/ (Accessed 9/3/2015).

Case Study 3:
Cardiology Physician Practice Services and Assets

- ASTC Service Line
  - Net economic benefits determined by evaluating whether:
    - *"The market service area contains sufficient demand for the technical services of the ASTC service line to support the projected…volume of procedures of the ASTC service line, as an independent operating enterprise;* [and,]
    - *There is a sufficient supply of physician manpower within the geographic proximity limitations of the market service area, separate and aside from those that currently own, or those who are currently employed, by the subject practice, to support the technical services of the ASTC service line, post transaction, as an independent operating entity, in a manner that clearly establishes that there is no remuneration based on the volume or value of referrals from the subject practice physicians."*

"Utilizing the Income Approach to Appraise Outpatient Enterprises" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, CVA, CM&AA, and Todd Zigrang, MBA, MHA, FACHE, ASA, National Association of Certified Valuators and Analyst QuickRead, 9/2/2015, http://quickreadbuzz.com/2015/09/02/utilizing-the-income-approach-to-appraise-outpatient-enterprises/ (Accessed 9/3/2015).

Case Study 3:
Cardiology Physician Practice Services and Assets

- ASTC Service Line
  - After establishing net economic benefits in the absence of referrals, valuation analysts should determine highest and best use of resources
  - Select the appropriate valuation approach to value the *ASTC Service Line* of a cardiology physician practice
  - Explain the exclusion of any approach not used

"2014-2015 Uniform Standards of Professional Appraisal Practice" The Appraisal Foundation, 2014, p. U-67.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Professional Service Line
  - A valuation analyst must consider all *uses* of the resources related to the *Professional Service Line* of a cardiology physician practice that are:
    - *Legally Permissible*
    - *Socially Acceptable*
    - *Physically Possible*
    - *Financially Feasible*

"Financial Valuation: Applications and Models," By James Hitchner, Hoboken, NJ: John Wiley & Sons, 2011, p. 344.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Professional Service Line
  - Unlike an *ASTC Service Line* in a cardiology physician practice *services* rendered by a *Professional Service Line* **must** be performed by a *licensed medical professional*
  - A *referral* relationship does not exist between the owners of the cardiology physician practice and the *Professional Service Line* of the cardiology physician practice

"2014-2015 Uniform Standards of Professional Appraisal Practice" The Appraisal Foundation, 2014, p. U-67.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Professional Service Line
  - Valuation analysts should:
    - Select the appropriate valuation approach to value the *Professional Service Line* of a cardiology physician practice
    - Explain the exclusion of any approach not used

"2014-2015 Uniform Standards of Professional Appraisal Practice" The Appraisal Foundation, 2014, p. U-67.

Case Study 3:

Cardiology Physician Practice Services and Assets

- Professional Service Line
  - *"It should be emphasized that the decision to utilize the premise of value in exchange, in lieu of the premise of value in use, as a going concern, does not preclude the existence of economic…*[value] *attributable to intangible assets. Intangible assets may well exist and hold significant economic…*[value] *under the value-in-exchange premise, based on the principle of highest and best use, which" "… is defined as the reasonably probable legal use of the intangible asset that is physically possible, appropriately supported, financially feasible, and results in the highest value."*

"Valuation of Healthcare Intangible Assets in the Absence of Positive Net Cash Flows" by Robert James Cimasi, MHA, ASA, FRICS, MCBA, CVA, CM&AA, Todd Zigrang, MBA, MHA, ASA, FACHE, John Chwarzinski, MSF, MAE, and Jonathan Wixom, MBA, Business Valuation Review, Volume 34, No. 3 (Fall 2015), p. 133-134.

Case Study 3:

Cardiology Physician Practice Services and Assets

- Professional Service Line
  - There is no binding presupposition related to the historical use of the assets comprising a healthcare enterprise
  - A particular owner's inability to historically generate a positive net cash flow emanating from the ownership, use, or right to control a subject asset does not imply nor require that a typical investor in a similar asset would be likewise incapable of generating a positive stream of economic benefit from a subject intangible asset

Case Study 3:
Cardiology Physician Practice Services and Assets

- Professional Service Line
  - Investors may acquire assets under numerous different settings and circumstance,
  - These investors are not beholden to:
    - The current use of the assets by the seller of the subject intangible assets
    - The current owner's difficulties in generating positive net economic benefit from the enterprise in its entirety

Case Study 3:
Cardiology Physician Practice Services and Assets

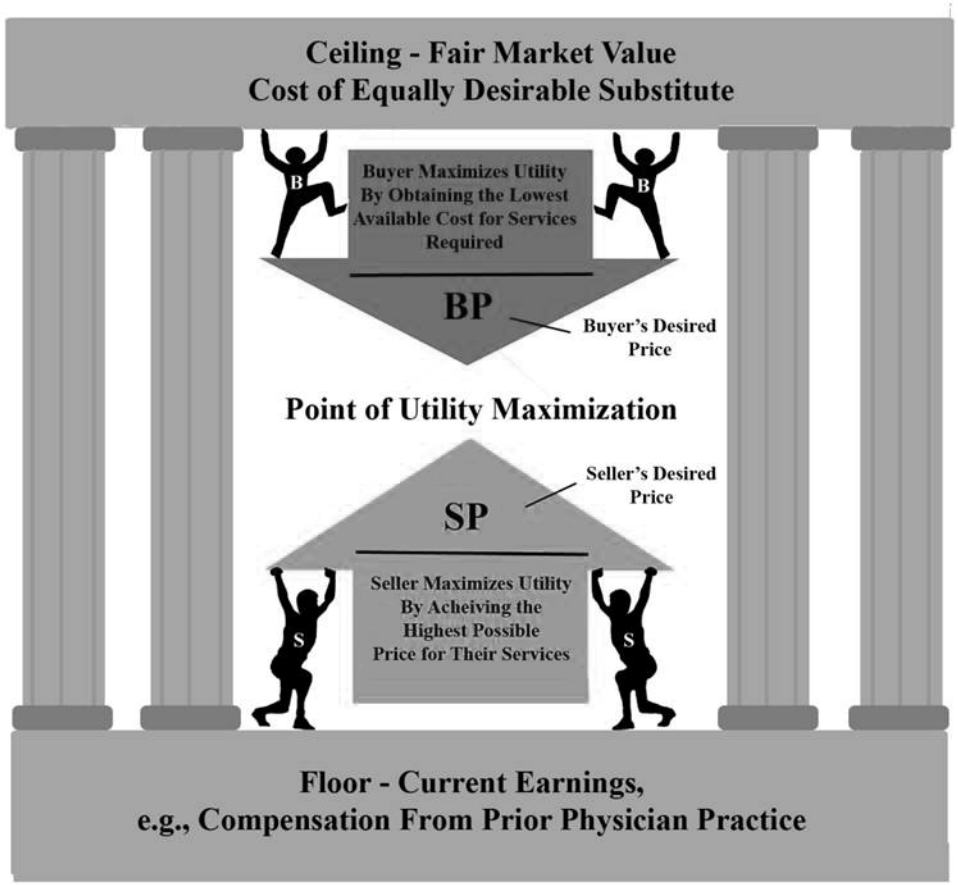
- Professional Service Line
  - Differences in anticipated benefit to be derived from the ownership of the subject asset arises from the diversity in uses for assets
  - This provides an opportunity for the participants in a transaction to generate gains from trade

Case Study 3:
Cardiology Physician Practice Services and Assets

- Professional Service Line
  - Differences in value are also known as the aggregate expected economic benefit accruing to the owner of a particular asset
  - Difference in value also underpins the concept of “willing buyer” and “willing seller”

“Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services” Cimasi, 2014, p. 884-888.

Case Study 3:
Cardiology Physician Practice Services and Assets



"Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 884-888.

Case Study 3:

Cardiology Physician Practice Services and Assets

- Professional Service Line
  - The expected future economic benefit accruing to the purchaser of a subject asset will tend to put a ceiling on the price the acquirer would be willing to pay
  - Likewise, the expected future economic benefit accruing to the seller of an asset will tend to put a floor on the price the seller would be willing to accept

"Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 884-888.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Professional Service Line
  - Within the gap between the expected future economic benefits of the buyer and seller lies the gains of trade
  - The gains may be distributed among the market participants to arrive at the agreed-upon transaction price for the subject asset

"Healthcare Valuation: Volume 2 – The Financial Appraisal of Enterprises Assets, and Services" Cimasi, 2014, p. 884-888.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Professional Service Line
  - When the expected future economic benefit accruing to the potential seller exceeds the future expected economic benefit accruing to the potential purchaser the transaction would not be concluded or even contemplated by the parties

"The Theory of Political Economy" By William Jevons, Third Edition, London, UK: MacMillion, 1888, http://www.econlib.org/library/YPDBooks/Jevons/jvnPE3.html#Chapter3 (Accessed 9/13/2012).

Case Study 3:
Cardiology Physician Practice Services and Assets

- Professional Service Line
  - The fact that a transaction is being considered increases the probability that the current use of the assets by the seller fails to produce the level of economic benefit expected by other investors in similar assets
  - This provides the motivation for the seller to divest of the assets

"Valuation of Healthcare Intangible Assets in the Absence of Positive Net Cash Flows" by Robert James Cimasi, MHA, ASA, FRICS, MCBA, CVA, CM&AA, Todd Zigrang, MBA, MHA, ASA, FACHE, John Chwarzinski, MSF, MAE, and Jonathan Wixom, MBA, Business Valuation Review, Volume 34, No. 3 (Fall 2015), p. 134-135.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Human Resources Related to Physician Owners
  - A valuation analyst must consider all uses of the resources related to the labor supplied by physician owners of a cardiology practice that are:
    - *Legally Permissible*
    - *Socially Acceptable*
    - *Physically Possible*
    - *Financially Feasible*

"Chapter 3: The Principles and Concepts of Valuation: Theory of Utility and Value, Value Influences, and Value Concepts" p. 55, in "Appraisal and Valuation: An Interdisciplinary Approach" By Richard Rickert, Washington, DC: American Society of Appraisers, 1987

Case Study 3:
Cardiology Physician Practice Services and Assets

- Human Resources Related to Physician Owners
  - It is important to remember that most entrepreneurs "*…earn systematically less than…*" they would as an employee of a third party
    - Averaging 36.5% lower earnings than non-self-employed individuals
    - Done in exchange for "*…higher levels of job and life satisfaction than employees*."

"Strategic and Natural Risk in Entrepreneurship: An Experimental Study" By John Morgan, Journal of Economics & Management Strategy, forthcoming, http://faculty.haas.berkeley.edu/rjmorgan/Risk%20in%20Entrepreneurship.pdf (Accessed 11/6/2015); "Does Entrepreneurship Pay? An Empirical Analysis of Returns to Self-Employment" By Barton Hamilton, Journal of the Political Economy, Vol. 108, No. 3 (June 2000), p. 625; "What Makes an Entrepreneur?" By David Blanchflower and Andrew Oswald, Journal of Labor Economics, Vol. 16, No. 1 (January 1998), p. 26.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Human Resources Related to Physician Owners
  - In determining the highest and best use of labor of the physician owners of a cardiology practice a valuation analyst should determine whether the income generated from the provision of services to cardiology physician practice (i.e., value in use) exceeds "*…the most probable amount that those services would command in the open market*" (i.e., value in exchange)

"Healthcare Valuation: Volume 2 - The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Hoboken, NJ: John Wiley & Sons, 2014, p. 884.

Case Study 3:

Cardiology Physician Practice Services and Assets

- Human Resources Related to Physician Owners
  - A *highest and best use analysis* can also be extended to those scarce resources represented by a physician's time and effort which are finite and scarce in nature
  - Based off the autonomy versus leverage continuum
    - Most physicians value the independence and autonomy that attends to the ownership and control of their own practice of medicine

"Healthcare Valuation: Volume 2 - The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Hoboken, NJ: John Wiley & Sons, 2014, p. 884.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Human Resources Related to Physician Owners
  - Autonomy versus Leverage Continuum
    - The differential in the extent to which the physician can leverage their clinical labor into reimbursement available from employment within a health system (which results from the health system's increased leverage with payors) will eventually outweigh both:
      - The *non-monetary benefits*
      - The intrinsic and extrinsic utility that would be expected to result from their autonomy

"Healthcare Valuation: Volume 2 - The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Hoboken, NJ: John Wiley & Sons, 2014, p. 887.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Human Resources Related to Physician Owners
  - Autonomy versus Leverage Continuum
    - It would be expected that those physicians and physician practices which generate the least financial remuneration would be the most likely to seek out a transaction that includes their subsequent employment by an acquirer
    - Goal would be to seek compensation at or near a measure of central tendency for the industry normative benchmark compensation data
      - This could be in excess of their own ability to leverage their clinical labor to generate reimbursement

Case Study 3:
Cardiology Physician Practice Services and Assets

- Human Resources Related to Physician Owners
  - Autonomy versus Leverage Continuum
    - Any rigorous statistical analysis performed on practice acquisitions must be cognizant of the fact that the subset of all practices represented by those practices which have agreed to a transaction would be
      - *Biased* toward those generating the least economic benefit to their owners
      - Comprised largely of *underperforming* practices.

Case Study 3:
Cardiology Physician Practice Services and Assets

- Human Resources Related to Physician Owners
  - Autonomy versus Leverage Continuum
    - The physicians within practices that are capable of leveraging the physician's clinical labor to a greater extent than the measure of central tendency of the benchmark industry data will not typically be engaged in the transactional arena or subject to appraisal

Conclusion

- The consideration of the *fair market value* of an asset envisions a transaction at
  - "*the price at which property or the right to use property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy, sell or transfer property or the right to use property, and both having reasonable knowledge of relevant facts.*"

26 C.F.R. § 53.4958-4(b)(i) (2014).

Conclusion

- Fair market value transactions are done under two premises of value:
  - ***Value in use as a going concern*** premise;

    - or -
  - ***Value in exchange*** *as an orderly disposition of the assemblage of the assets in place* premise

Conclusion

- Definition of FMV includes the requirement for a *willing buyer/willing seller*
  - In the absence of compulsion, a ***willing seller*** will demand a price which reflects that value derived from the ***highest and best use*** of the assets comprising the property interest
- This price demanded will occur regardless of whether the premise of value employed is ***in use as a going concern*** or ***in exchange as an orderly disposition of the assets***.

Conclusion

- No *willing seller* acting in their own economic self-interest and in the absence of duress would rationally contemplate concluding a transaction at an amount less than the amount arrived at from the *highest and best use* of the assets
- Such a transaction would extend beyond the simple hypothetical transaction that is a requisite assumption of *fair market value* and wander baselessly into the realm of fantasy

Conclusion

- A key notion in the definition of FMV is the requirement for the *willing buyer/willing seller* to have a *reasonable knowledge of the relevant facts*
  - This concept insures that the value arrived at does not take into account any *private knowledge* that may be in the possession of one or the other of the parties
- **A vital role of the valuation analyst is to bridge any gaps in the knowledge between the two parties to arrive at an indication of FMV**