

Business Valuation of Healthcare Enterprises and Services (and Interests Therein)

Presenters

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Presenter Bio

Jason Ruchaber, CFA, ASA, is a Managing Director in Berkeley Research Group's Health Analytics Practice, where he provides analysis and consultation to health lawyers, health systems, physicians, and other healthcare investors regarding the valuation of healthcare related business enterprises and intangible assets. His practice is primarily focused on the determination of fair market value to support healthcare related transactions and affiliations, intellectual property licensing, and shareholder transactions. Jason has also been engaged to provide strategic value consulting and to serve as an expert witness in commercial litigation and marital dissolution.



Mr. Ruchaber has valued hundreds of entities throughout the U.S., including hospitals, surgery centers, physician practices, imaging centers, pathology labs, oncology centers, and home health agencies, among others. A frequent speaker and author on healthcare valuation topics, Jason was a contributor to the BVR/AHLA Guides to Healthcare Valuation and Healthcare Industry Compensation and Valuation, and is a faculty member of the Healthcare Special Interest Group of the American Society of Appraisers.

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*” (AICPA, 2014), 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.

About the American Society of Appraisers

The American Society of Appraisers is an international organization of appraisal professionals founded in 1952 to provide a comprehensive, profession-wide organization for appraisers and valuation engineers.

As a comprehensive body, the ASA pursues accurate valuation for all classes of property and hence examines multiple levels of economic activity. As such, the ASA seeks to foster cooperation between professionals of several valuation disciplines, and this spirit of cooperation may help engender multidisciplinary approaches to the art and science of valuation.

Mission of the Healthcare Special Interest Group (HSIG)

The *Healthcare Special Interest Group* (HSIG) is a Subcommittee of the ASA's International Education Committee and dedicated to the advancement of multidisciplinary education in healthcare valuation.

HSIG views the field of healthcare valuation as a complex area affecting multiple disciplines and requiring unique approaches for study and solutions. At the same time, the field also holds much promise for those willing to pursue new, multidisciplinary answers in this ever-changing healthcare market environment.

ASA HSIG Members

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Overview of Presentation

- Healthcare Industry Overview
- Basic Valuation Tenets
- Valuation Approaches & Methods
- Inpatient Enterprises
- Outpatient Enterprises
- Other Healthcare Related Enterprises
- Healthcare Services
- Threshold of Commercial Reasonableness
- Concluding Remarks

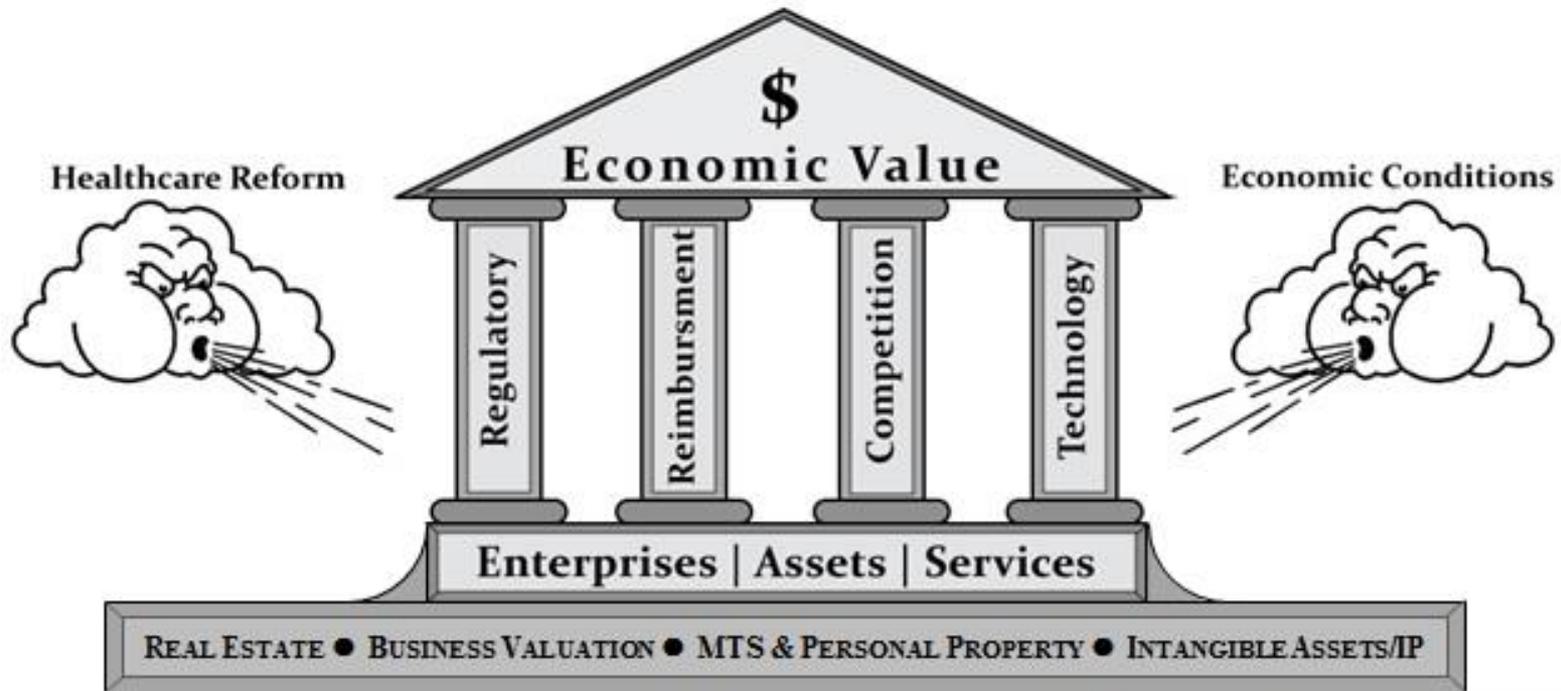
Section One

HEALTHCARE INDUSTRY OVERVIEW

Four Pillars of the Healthcare Industry

- A useful conceptual framework for analyzing risk is the “*Four Pillars*”
- Financial performance and economic condition of subject enterprise should be carefully considered when determining risk involved in investing in the enterprise
- *Benchmarking* is among the most useful tool in determining the relative attributes of success/failure of an enterprise
- Successful benchmarking will reveal both favorable and unfavorable areas of an enterprises’ operations

Four Pillars of the Healthcare Industry



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The Four Pillars of the Healthcare Industry - Regulatory

The ever-changing healthcare regulatory environment produces uncertainty which increases the perception of risk to potential healthcare investors

- For example, with the passage of the 2010 *Patient Protection and Affordable Care Act (ACA)*, i.e., “*Obamacare*,” providers are facing even more extensive regulatory scrutiny

Among the valuation issues arising from these regulatory concerns are:

- Establishing existence of certain tangible and intangible assets within a healthcare enterprise
- Legal permissibility of acquiring healthcare assets
- Selection of applicable valuation methodologies, approaches and techniques related to establishing *Fair Market Value*

The Four Pillars of the Healthcare Industry Reimbursement

- Most providers will receive reimbursements for their services from third parties, including, but not limited to:
 - *Government agencies*
 - *Commercial payors and insurance companies*
 - *Employers*
 - *Patients and their families*
- The reimbursement levels set by *federal and state government payors* often act as *benchmarks* for all reimbursement schemes
- Due to the volatile nature of reimbursement, there is an increased level of perceived risk in healthcare investments

Annual Updates to the MPFS CF (CMS Final Rule v Congressional Action), 1998-2014

A	B	C	D
Year	SGR	Physician Fee Schedule Update Under CMS Final Rule	Physician Fee Schedule Update After Congressional Actions
1998	1.50%	2.3%	N/A
1999	0.00%	2.3%	N/A
2000	3.00%	5.5%	N/A
2001	5.60%	5.0%	N/A
2002	5.60%	-4.8%	N/A
2003	7.60%	-4.4%	1.6%
2004	7.40%	-4.5%	1.5%
2005	4.30%	1.5%	1.5%
2006	1.70%	-4.4%	0.0%
2007	2.00%	-5.0%	0.0%
2008	-0.10%	-10.1%	0.5%
2009	7.40%	1.1%	1.1%
2010 (Jan - May)	-8.80%	-21.2%	0.0%
2010 (June-Dec)			2.2%
2011	-13.40%	-24.9%	0.0%
2012	-16.90%	-27.4%	0.0%
2013	-18.90%	-27.0%	0.0%
2014	-16.7%	-20.1%	0.5%

Of note is that the SGR (Column B) is used to determine the conversion factor, which is then used in the calculation of the physician fee schedule update under the CMS Final Rule (Column C), however congressional action forgo these calculations and simply established a physician fee schedule update (Column D).

MPFS CF = Medicare Physician Fee Schedule Conversion Factor

Sources: For all years, Federal Register, Medicare Program; Revisions to Payment Policies Under the Physician Fee Schedule, Clinical Laboratory Fee Schedule & Other Revisions to part B for CY, Final Rule. "Protecting Access to Medicare Act of 2014" National Conference of State Legislatures, April 15, 2014, <http://www.ncsl.org/research/health/protecting-access-to-medicare-act-of-2014.aspx> (Accessed 10/14/14). Importantly, this law extends the 0.5% payment update until March 31, 2015.

The Two Revenue Streams of Healthcare

Professional Component (wRVU)



Medicare reimbursement for wRVUs has been stagnant or decreasing for physician professional fees since the 1990s

Ancillary Services & Technical Component (ASTC)



Professional practice physician owners have pursued *supplementary profits* via the ASTC revenue stream

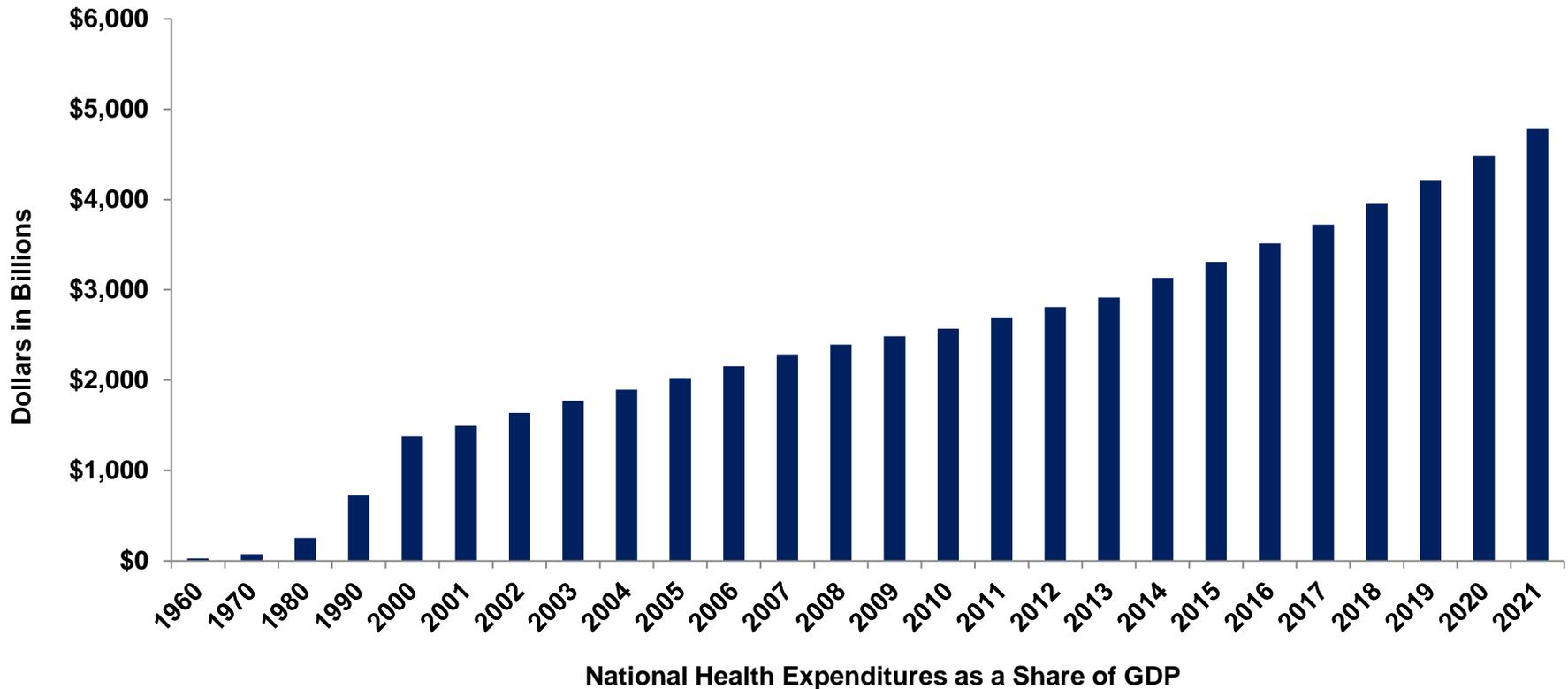
The Four Pillars of the Healthcare Industry Competition

- The dynamic nature of the healthcare industry competitive landscape leads to perceived investor uncertainty and risk
- For example:
 - The ACA has several provisions that will likely affect competition including:
 - Establishing *health insurance exchanges*
 - *Average Whole Sale Price* initiatives
 - Competition between mid-level providers and physicians is likely to increase, especially given that the growth in the supply of mid-level providers has outpaced physician supply over the last 20 years

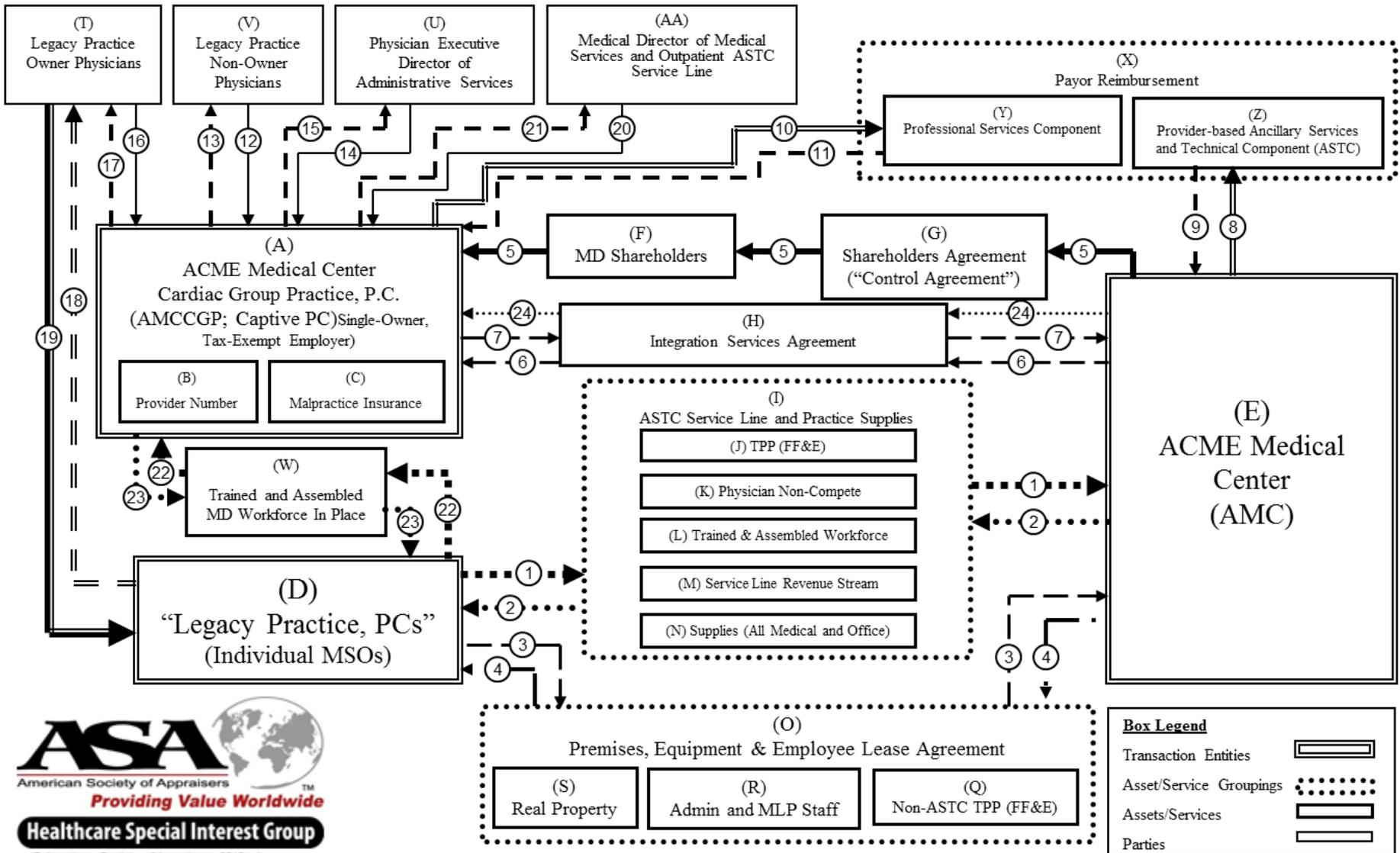
The Four Pillars of the Healthcare Industry Technology

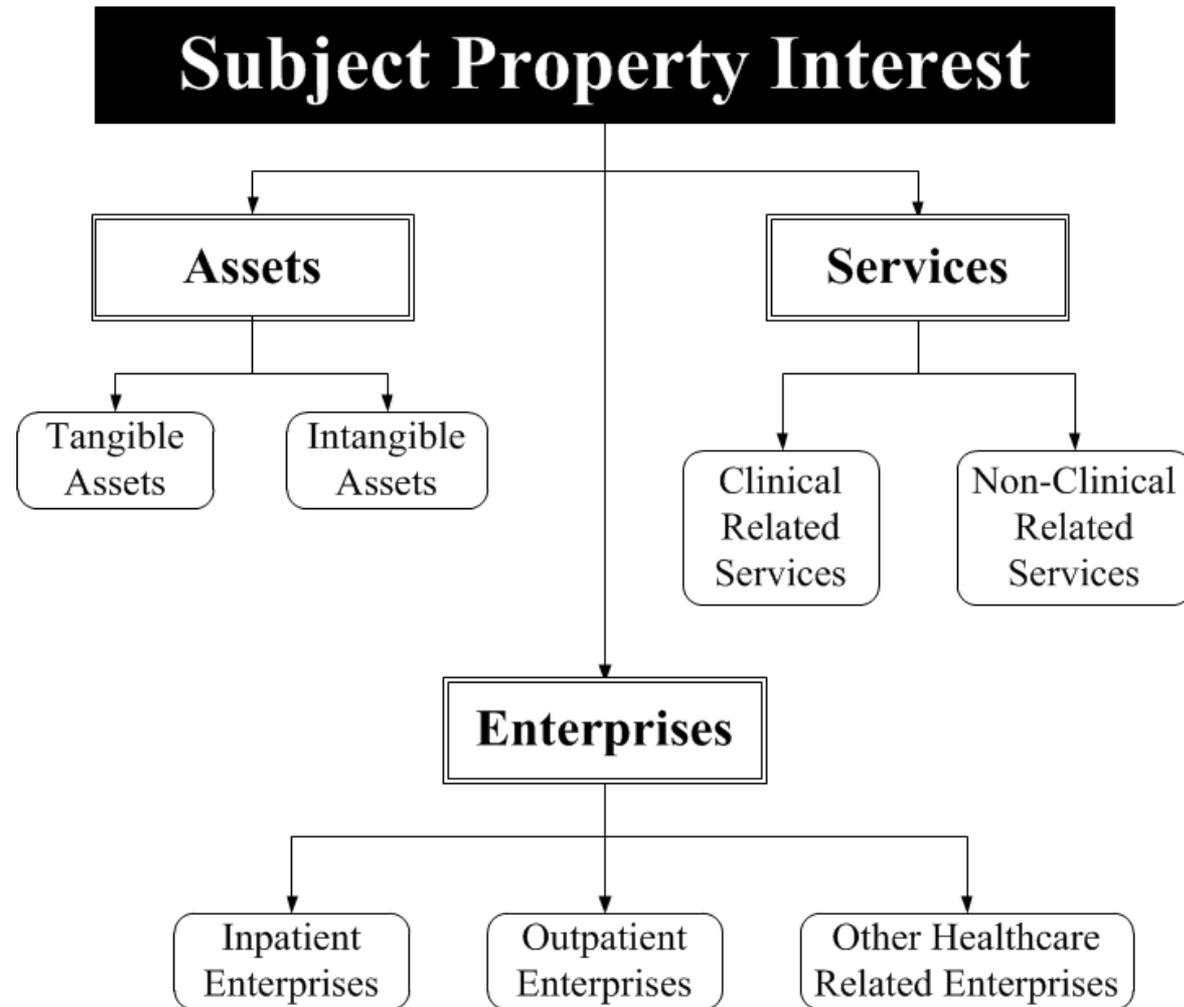
- Technology has a broad meaning when applied to healthcare and can include the following:
 - Tangible tools
 - Pharmaceuticals
 - Software that providers utilize during the provision of clinical services and the management of patient records
 - Procedures that constitute the standardized course of care
- Continuing technological advances may result in investor uncertainty related to the level of economic benefit that can be derived from the subject property

The Growing Importance of the Healthcare Industry

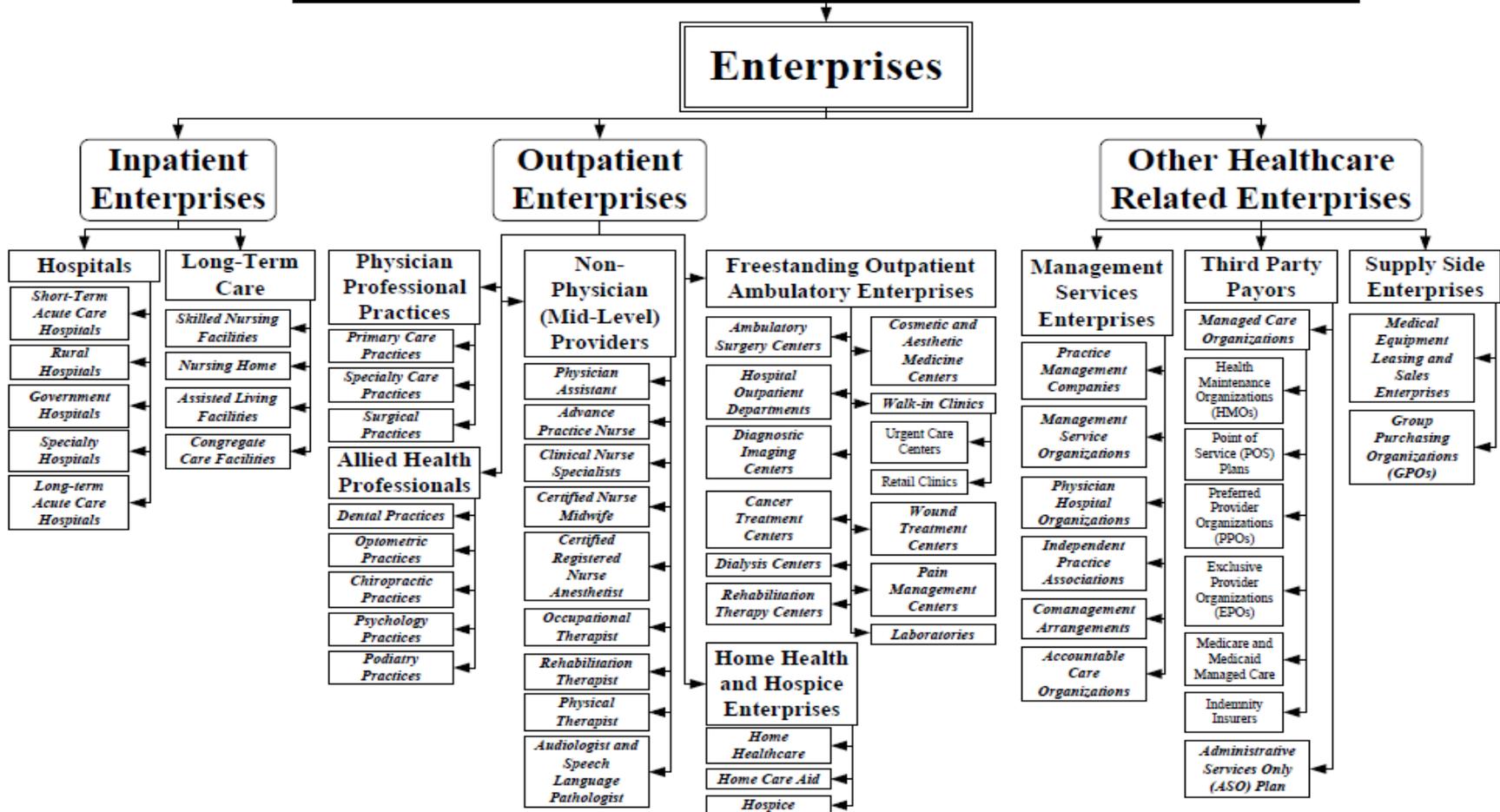


Illustrative Summary of Healthcare Transactions

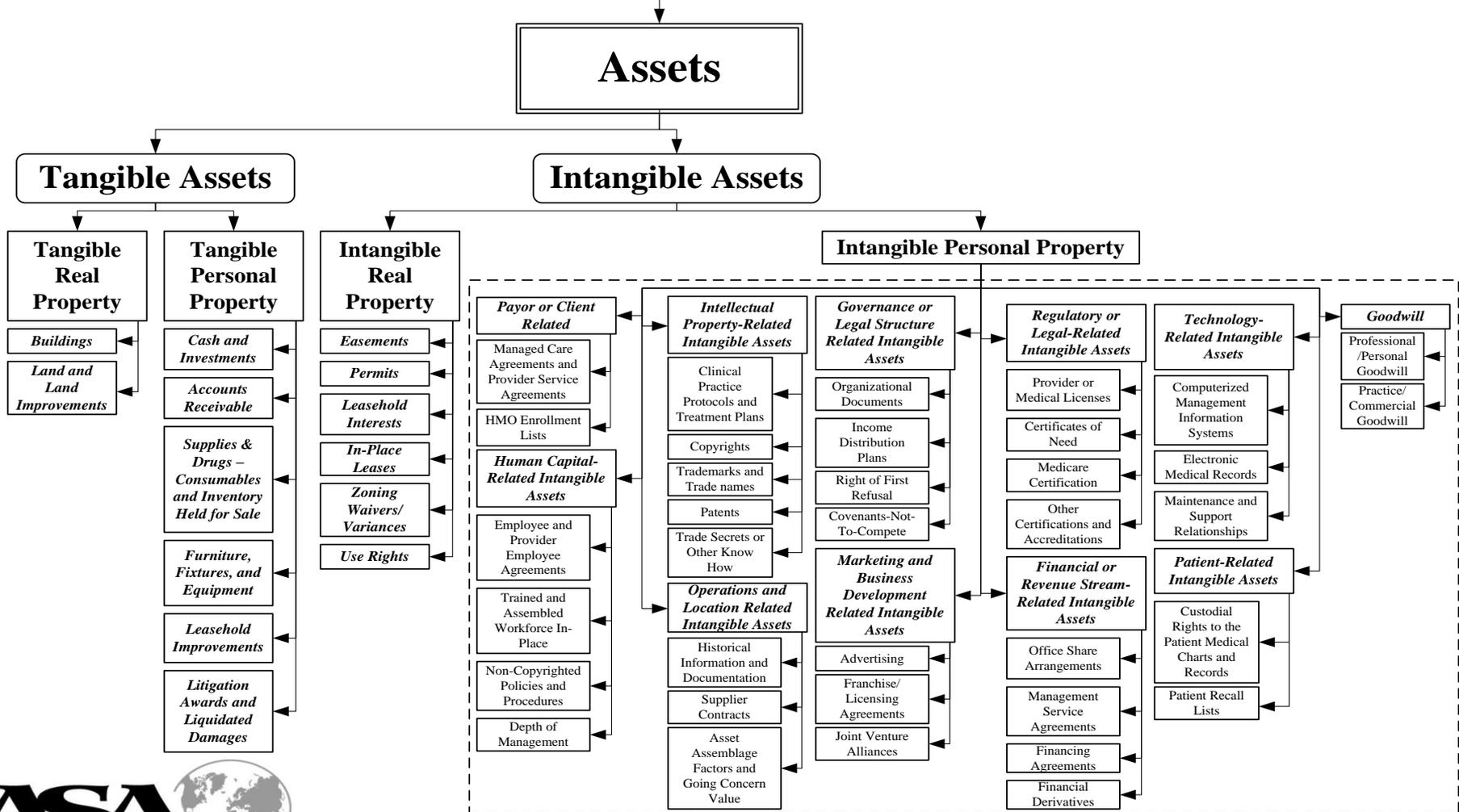




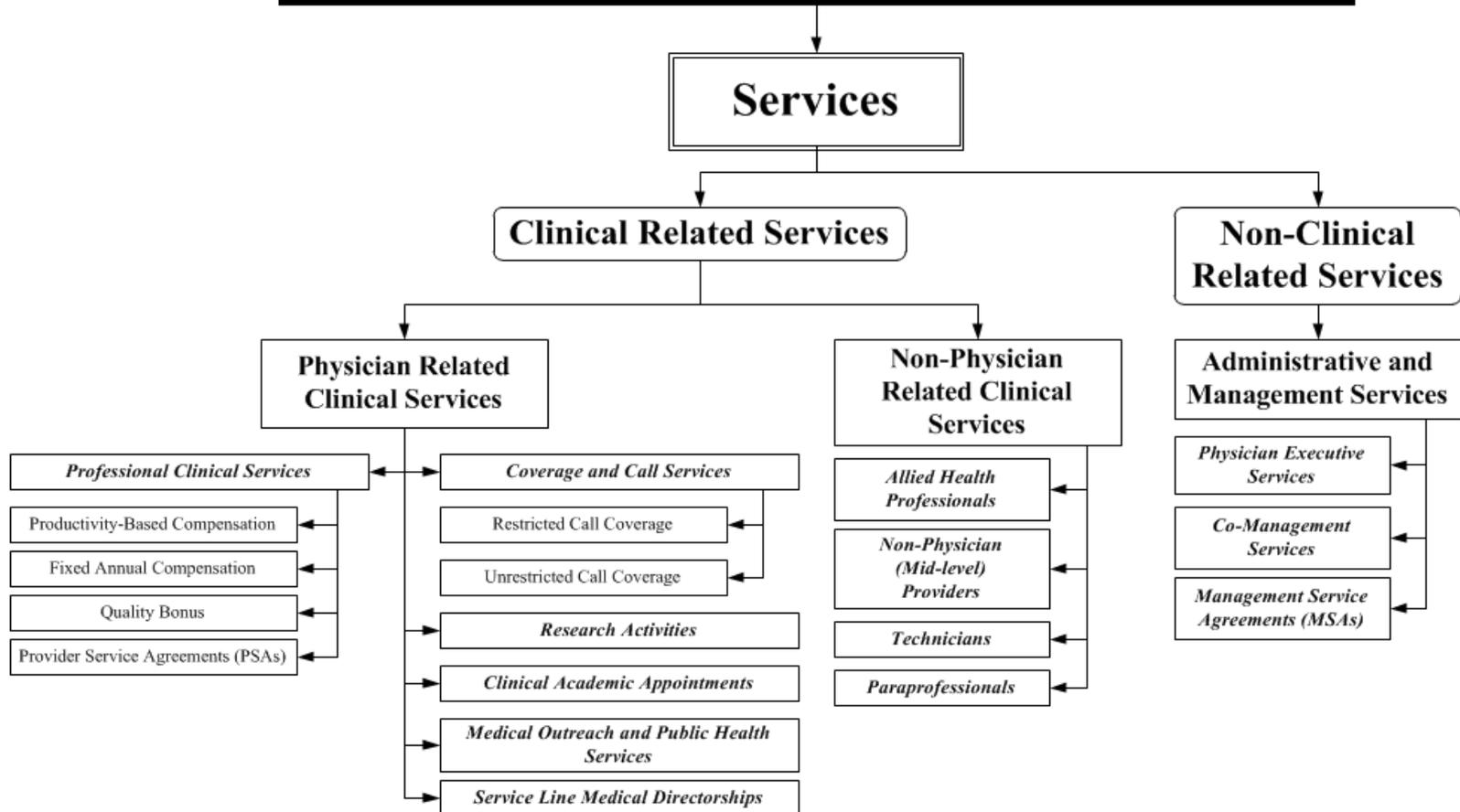
Subject Enterprises



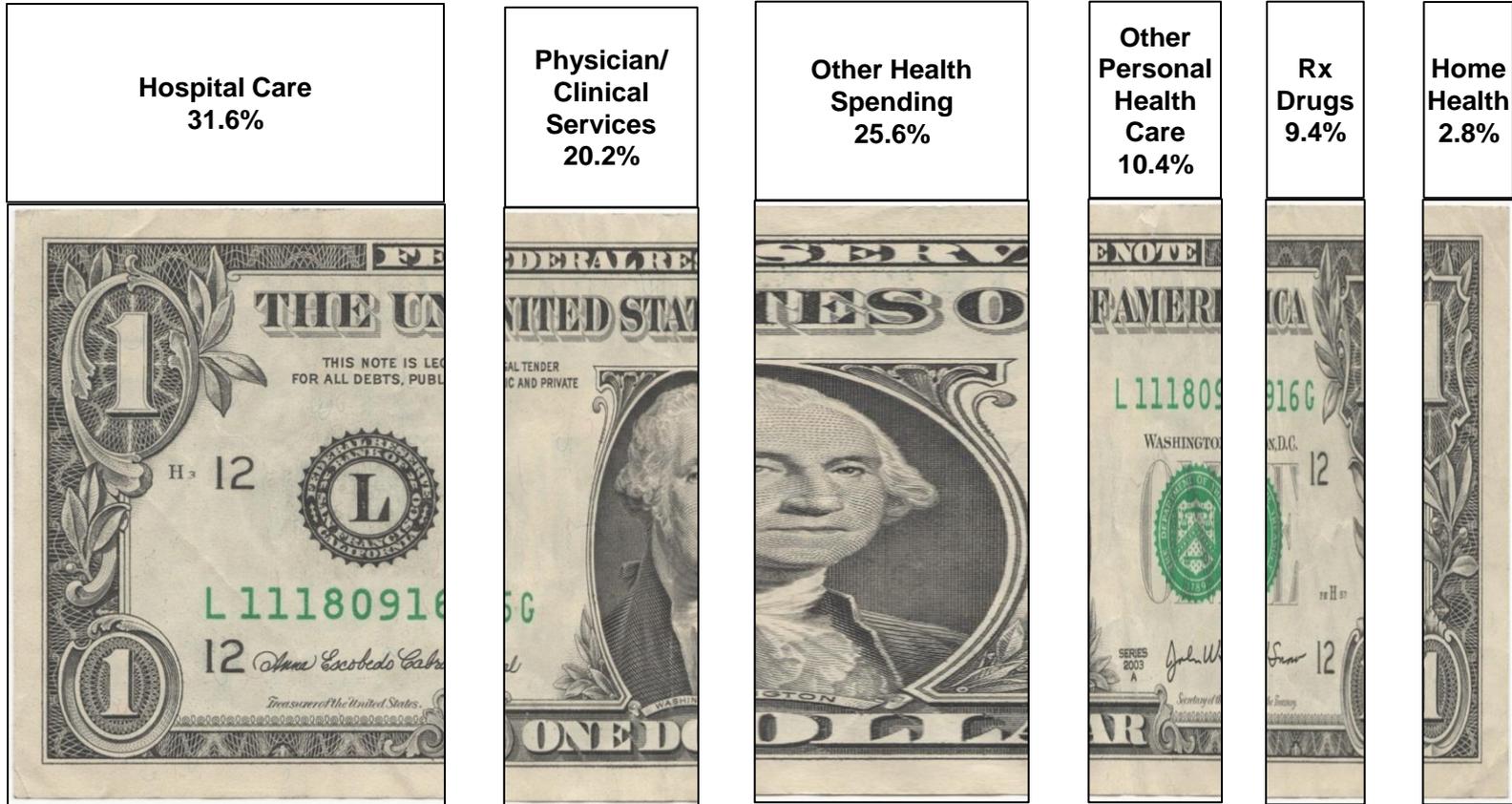
Subject Property Interest



Subject Property Interest



Allocation of Healthcare Expenditures



*Note: Other Health Care Spending includes: dental services, other professional services, non-durable medical products, durable medical equipment, research, public health activity, structures and equipment, administration and health insurance. Other Personal Health Care includes: other health, residential and personal care, nursing care facilities and continuing care retirement communities.

Section Two

BASIC VALUATION TENETS

Basic Valuation Tenets

Economic Principles

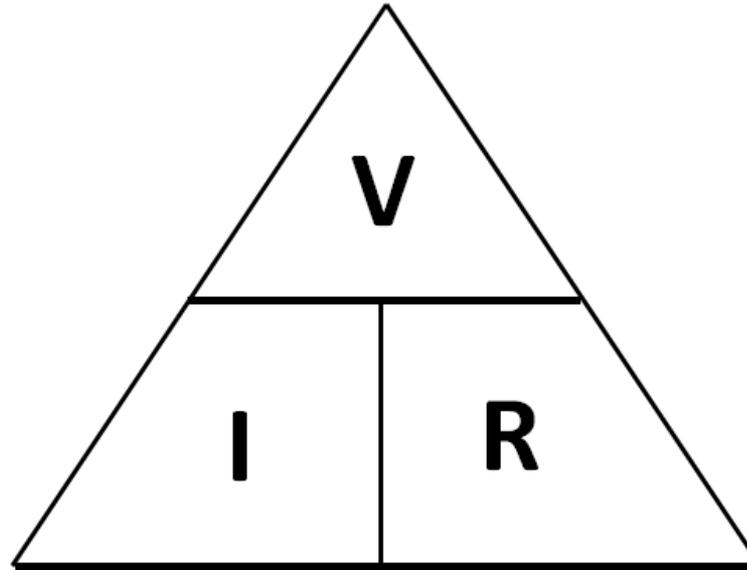
- **Scarcity**
 - Our inability to satisfy *all* our wants
- **Utility Theory**
 - Representation of a consumer's ordinal preferences
- **Principle of Substitution**
 - Individuals are willing to substitute goods of *equal utility*
- **Principle of Diminishing Returns**
 - Utility *increases* with each additional unit of good consumed at a *decreasing rate*

Basic Valuation Tenets

Economic Principles

- **Expected Utility**
 - Ability to optimize utility is limited by access to *pertinent information*
- **Principle of Anticipation**
 - Economic actors make their decisions based on *future* expectations
- **Forward Looking Value and Discounting**
 - All value can be concluded as a *forward looking expectation of utility*
 - Future expected benefits are discounted to reflect the *relative uncertainty of actually receiving the benefit*

The Value Pyramid

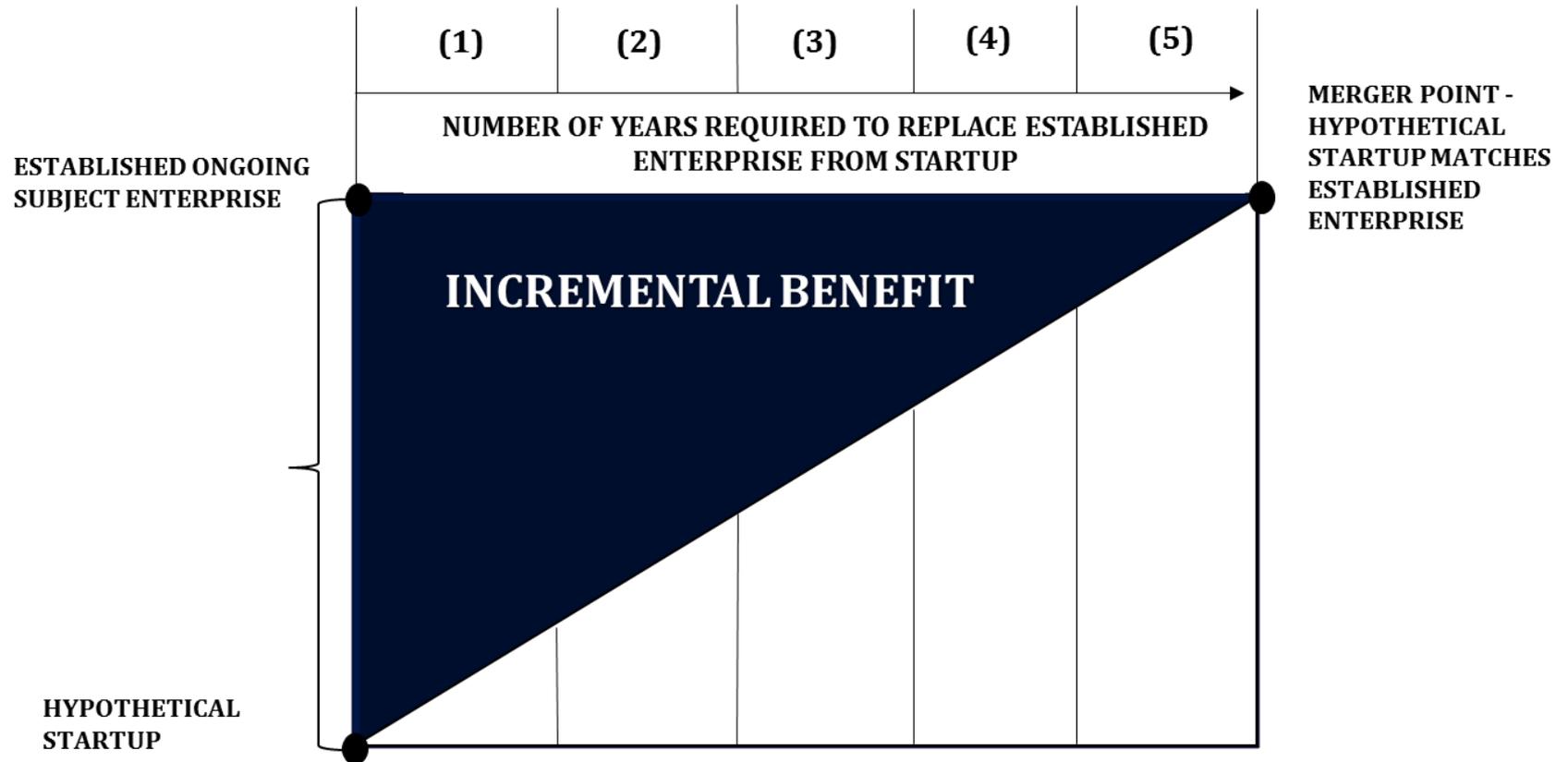


I = Economic Benefit Stream, e.g., Income, Earnings, Cash Flow
As defined by appraiser and appropriate to assignment

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

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.

Standard of Value vs. Premise of Value

Standard of Value

“Value to Whom?”

- Outlines the type of value to be determined
- Standards of Value include:
 - Fair Market Value (FMV)
 - Fair Value
 - Investment (Strategic) Value
 - Intrinsic (Fundamental) Value

Premise of Value

“Value Under What Further Defining Circumstances?”

- Further defines the Standard of Value to be used and under which a valuation is conducted
- Defines the hypothetical terms of the sale
 - Value in **Use**
 - Value in **Exchange**
 - Value as a mass assemblage of assets in place
 - Value as an orderly disposition
 - Value as a forced liquidation

Definitions of Fair Market Value

IRS

The IRS regulations define reasonable compensation as "*...amount that would ordinarily be paid for like services by the enterprises (Whether taxable or tax-exempt) under like circumstances.*"
And defines the standard of Fair Market Value as 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.*"

Anti-Kickback Statute

"...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."

Stark Law

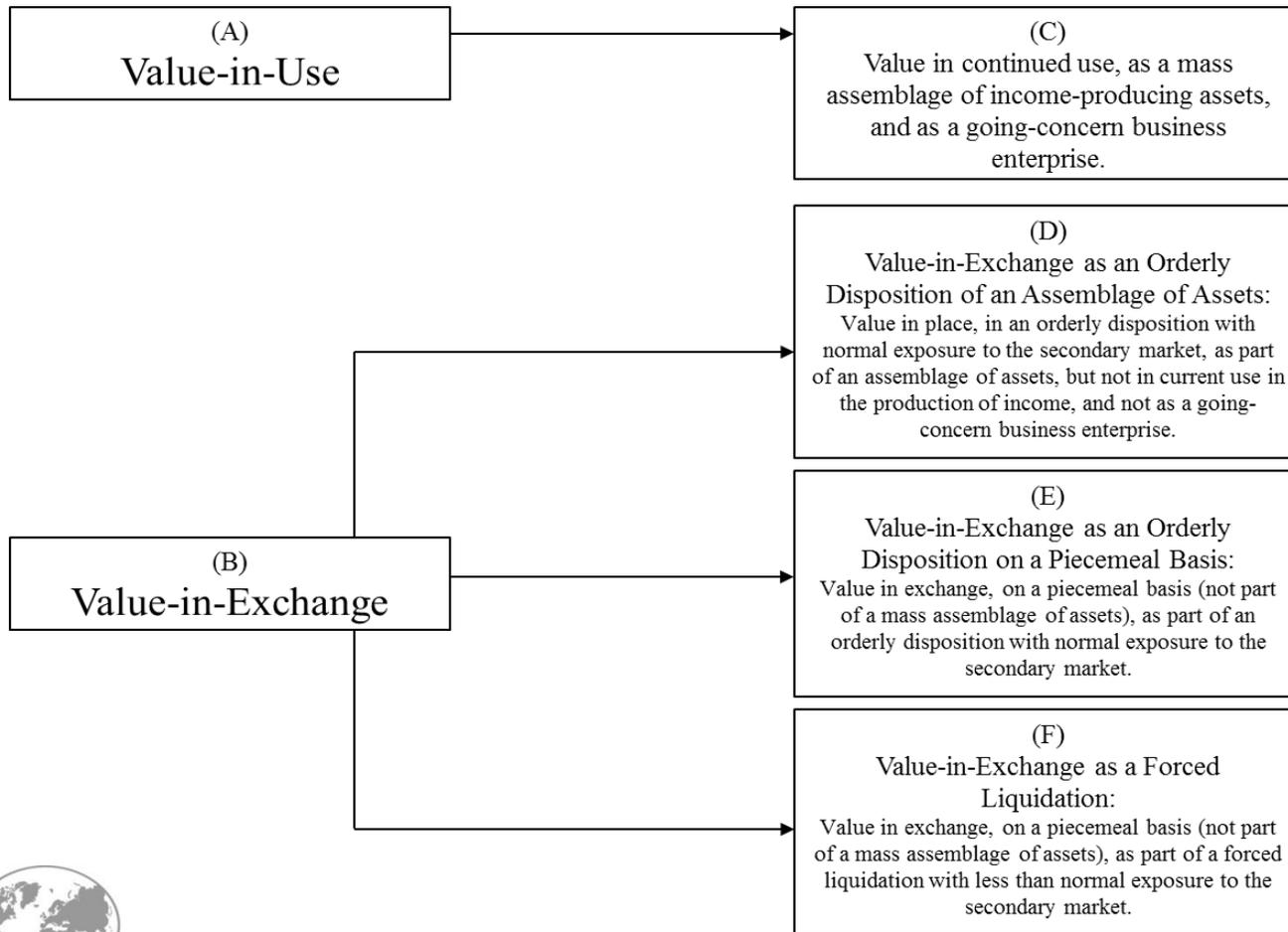
"Fair market value means the value in arm's-length transactions, consistent with the general market value. General market value' means the price that an asset would bring as the result of bona fide bargaining between well-informed buyers and sellers who are not otherwise in a position to generate business 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." [emphasis added]

Fair Market Value

IRS Exempt Organizations Law & Regulations

- *“Three Legged Stool”* – if one leg falls, the stool collapses
 - Community Benefit/Charitable Purpose
 - Legally Permissible Enterprise
 - No Inurement of Benefit or Excess Benefit

Premise of Value - Distinctions



Highest and Best Use

- Each premise of value may apply under the same standard, or definition, of value
 - For example, FMV calls for a *'willing buyer'* and a *'willing seller,'* yet these willing buyers and sellers have to make an informed economic decision as to how they will transact with each other with regard to the subject business
- ***Is subject business worth more to buyer and seller as***
 - ***A going concern that will continue to operate as such***
 - ***A collection of individual assets***
 - *Either case, the buyer and seller are still willing*
 - *In both cases, they have concluded a set of transactional circumstances that will maximize the value of the collective assets of the subject business enterprise*

Highest and Best Use

- ***That use among possible alternatives:***
 - Legally permissible
 - Socially acceptable
 - Physically possible
 - Financially feasible
 - Results in the highest economic return
- In a controlling interest valuation, the selection of the appropriate premise of value is a function of the *highest and best use* of the collective assets of the subject business enterprise

Highest and Best Use

- A business enterprise may fail to generate sufficient economic benefit to support the invested capital utilized to generate the revenue stream of the enterprise
 - Cannot support a valuation premise of *Value-in-Use as a Going Concern*
- The “*Value-in-Exchange*” premise of value is adopted

Valuation Date

- The specific point in time as of which the valuator's opinion of value applies
- Information that was not *known or knowable* as of the *valuation date* should not be considered in developing the indication of value
- The selection of valuation date is often times driven by the availability of the data necessary to support the indication of value

Marketability Basis

- Refers to the ability to readily convert the interest in the firm into cash or its equivalent
 - **Freely Traded Basis**
 - Equivalent marketability to publicly traded equities
 - “*Deep*” pool of potential purchasers
 - Most easily converted to cash
 - **Closely Held Basis**
 - Less marketable than publicly traded equities
 - May have a more limited pool of potential purchasers
 - May require applying a discount for lack of marketability

Polling Question 1

Section Three

VALUATION APPROACHES AND METHODS

Valuation Approaches & Methods

Income Approach

- Discounted Cash Flow
- Single Period Capitalization
- Discounted Future Benefit

Market Approach

- Merger and Acquisition
- Guideline Publicly Traded Company
- Prior Subject Entity (Practice) Transactions

Asset/Cost Approach

- Adjusted Book Value
- Liquidation Value
- Excess Earnings

Typical Valuation Considerations for Income Approach Based Methods

- Projection of Revenue
- Projection of Economic Costs
 - Both Operating and Capital
- Risk Adjusted Required Rate of Return

Income Approach

- Measures the *present value* of anticipated *future economic benefits* that will accrue to the owner of the property interest to be appraised
- Economic benefit of ownership has several potential measures, including:
 - Net operating income
 - Net Income
 - Cash Flow
 - Dividend Payouts
- A *risk-adjusted required rate of return*, matched to the level of economic benefit employed (e.g., pre-tax/after-tax), by which the benefits are discounted, must be developed

Market Approach

Guideline Public Company Methods

- Based upon valuation of the freely traded, minority interest registered shares of publicly traded companies
- Guideline public companies are typically significantly larger than closely-held healthcare enterprises requiring an adjustment to reflect the size difference

Guideline Transaction / Merger and Acquisition Method

- Based Upon *Principle of Substitution*
- Requires a relatively efficient and unrestricted secondary market for comparable properties

Market Approach

- Premised upon the concept that actual transactions of comparable property provide guidance about indications of value
- “*Comparables*” selected must exhibit “***homogenous badges of comparability***”:
 - Type of services and enterprises
 - Market Service Area with Geographic Variations
 - Payor Mix
 - Provider (Specialty and Subspecialty) Mix/Case Mix
 - Revenue Size and Profitability
 - Asset Size and Capital Structure
 - Investment Time Horizon
 - Market Entrance Barriers, e.g., Certificate of Need

Asset/Cost Approach

Asset/Cost Approach Based Valuation Methods

- Separately identify and appraise each tangible and intangible asset of the enterprise
- Aggregate the separately appraised indications of value into an accumulated value of the enterprise in its entirety

Typical Valuation Considerations for Asset/Cost Approach Based Method

- Based on the *Principle of Substitution*, which states that a purchaser would likely pay no more, and the seller could likely accept no less, than the cost of producing *an equally desirable substitute or a substitute of the same utility*
- Cost based methods are often utilized (as are *market* and *income* based methods) under the *Asset Approach*

Typical Valuation Considerations for Asset/Cost Approach Based Method

- Utilizing the *cost based methods* of the *Asset Approach*, value is determined by establishing the current cost of reproducing or replacing an asset, less applicable elements of *depreciation*:
 - Economic obsolescence
 - Technical obsolescence
 - Functional obsolescence
 - Physical deterioration

Alternative Valuation Techniques

- Techniques that do not neatly fit into any above approach used to arrive at value may include:
 - Certainty Equivalent Valuation (CEV)
 - Monte Carlo Simulation Analysis
 - Economic Value Added Analysis
 - Real Options Analysis
 - Net Present Value Analysis (NPV)
 - With and Without Analysis

Risk Assessment

- It is of paramount importance, when utilizing any of the valuation methods, to *accurately* and *precisely* determine the risk factors involved in the projection related to future expected economic benefit
- The assessment of risk by investors is related to both the actualities and perceptions of the market
- Benchmarking is a technique that can be used to assess the level of risk associated with an investment in the subject property interest

Benchmarking

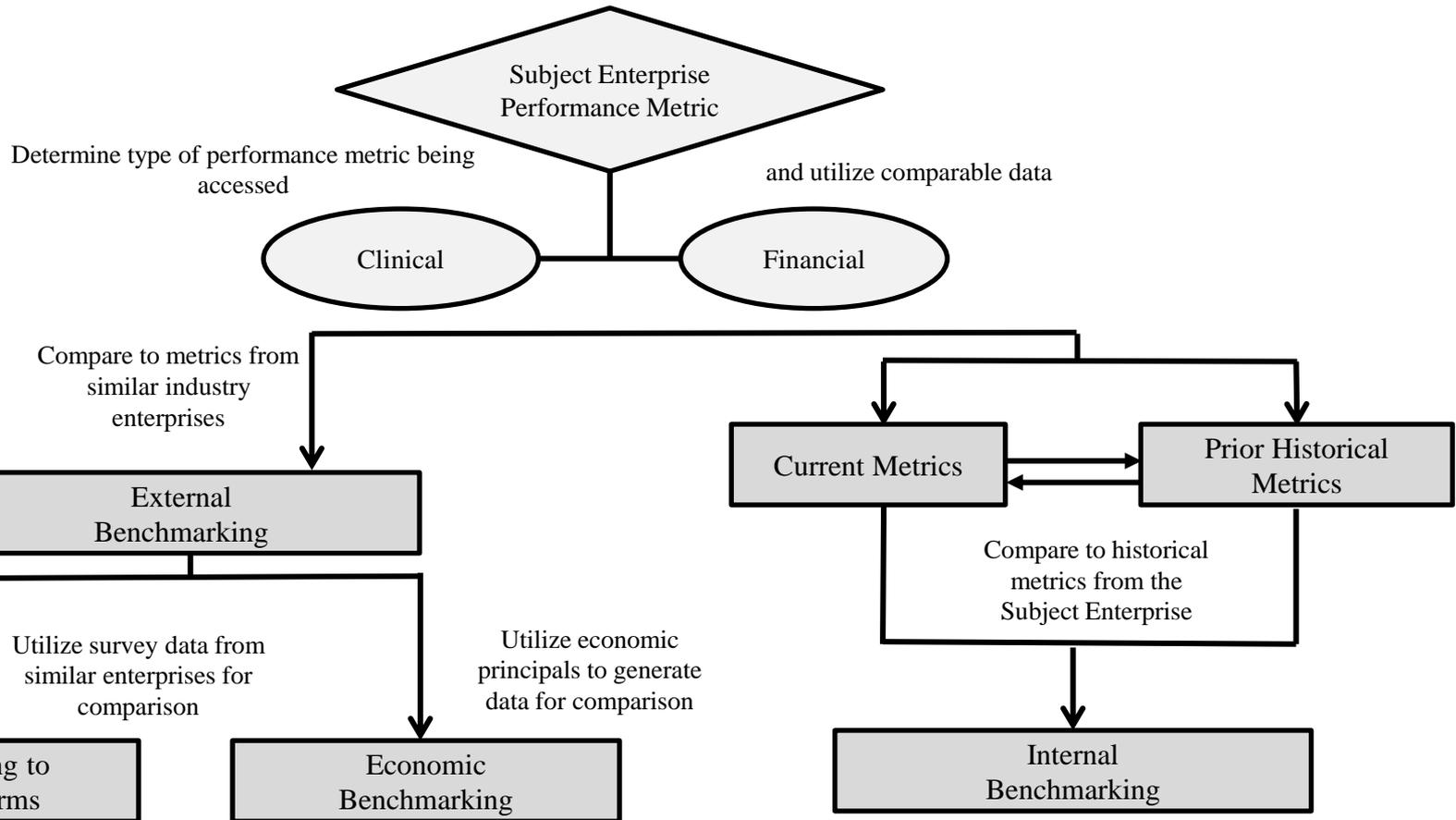
Internal Benchmarking

- Compares the current or most recently reported performance of an enterprise or property to its past performance
- The adjustment of past data may be necessary to allow for a similar basis upon which to make comparisons

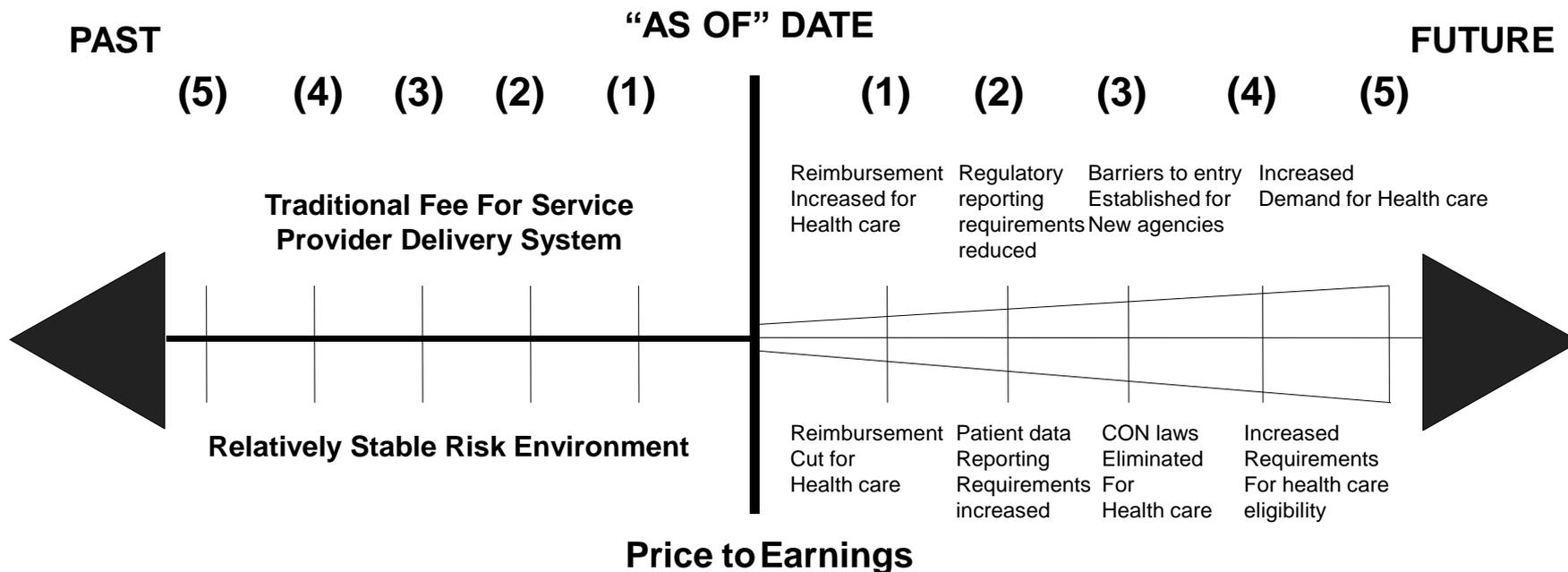
External Benchmarking

- The comparison of the subject enterprise or property to various benchmark metrics derived from data sources outside of the subject entity

Benchmarking



Reliance on Historical Data



Q: HOW USEFUL IS THE PAST IN DETERMINING VALUE?

Discounts and Premiums

Typically Two Types of Discounts & Premiums:

- **Entity Level Discounts and Premiums –**
Discounts and Premiums that apply to the entity as a whole
- **Shareholder Level Discounts and Premiums –**
Discounts and Premiums that reflect the characteristics of ownership

Discounts and Premiums

Entity Level Discounts and Premiums

- Examples:
 - Key Person Discount/Premium
 - Discount for Pending Litigation
 - Discount for Environmental Liability
 - Discount for Trapped-In Capital Gains
- Entity Level Discounts and Premiums are typically applied before Shareholder Level Discounts and Premiums

Discounts and Premiums

Shareholder Level Discounts and Premiums

Typically Two Categories of Shareholder Level Discounts and Premiums:

- ***Degree of Control Related:***
 - **Discount for Lack of Control (DLOC)** – discount which reflects the prerogatives of control (or lack thereof) inherent in a property interest
 - **Control Premium** – premium that reflects the prerogatives of control inherent in a property interest
- ***Degree of Marketability Related:***
 - **Discount for Lack of Marketability (DLOM)**- discount which reflects the lack of liquidity and/or costs incurred to transfer a property interest
 - **Blockage** – discount for a publicly traded security which reflects the difficulty in transacting the interest due to its size relative to trading volume

Discounts and Premiums

Discounts for Lack of Marketability (DLOM)

- DLOM for minority interests are different than the DLOM for controlling interests
- DLOM for controlling interests should **not** be based on studies of the public stock market, which report data for minority interests
- DLOM for controlling interests are typically based on factors such as:
 - Uncertain Time Horizon to complete transaction
 - Transaction costs incurred to execute the transaction
 - Transaction costs incurred to prepare the property for transfer
 - Risk related to the eventual sale price
 - Inability to hypothecate private company interest

Polling Question 2

Section Four

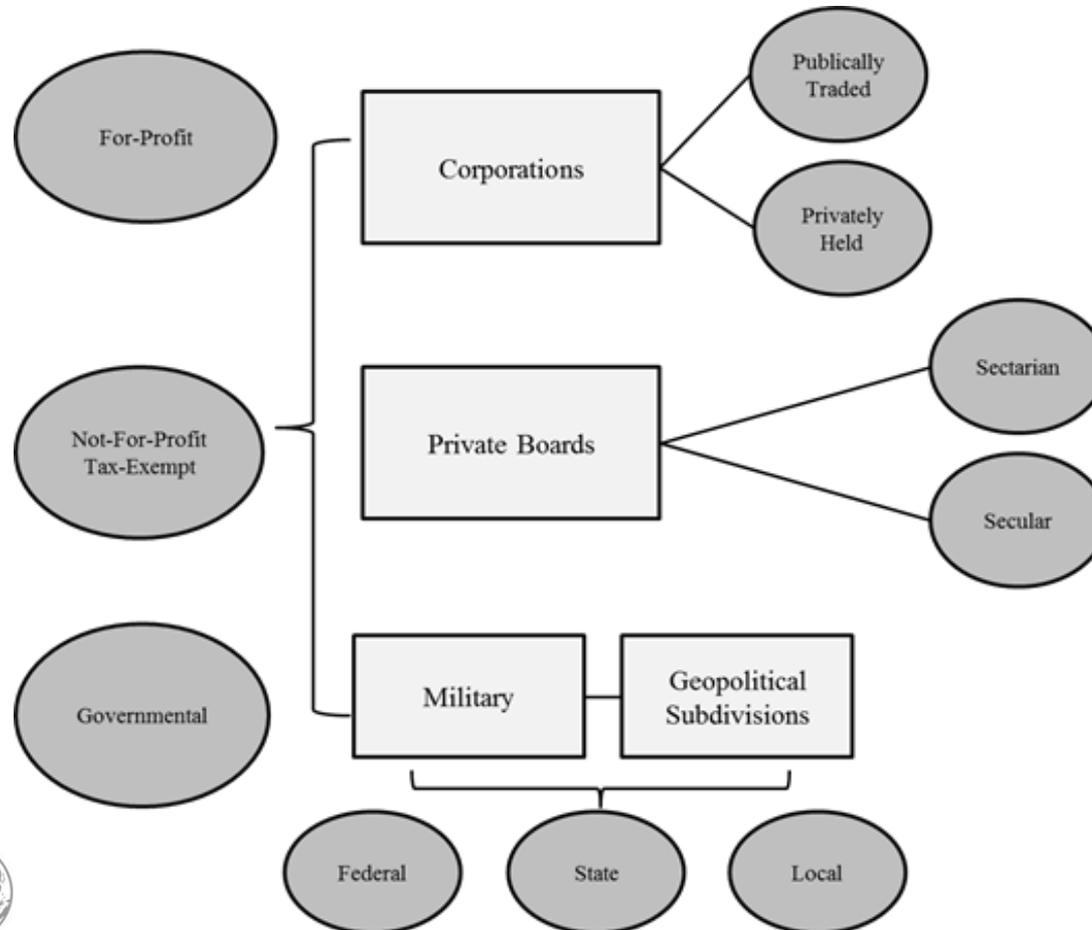
INPATIENT ENTERPRISES

Valuation of Inpatient Enterprises

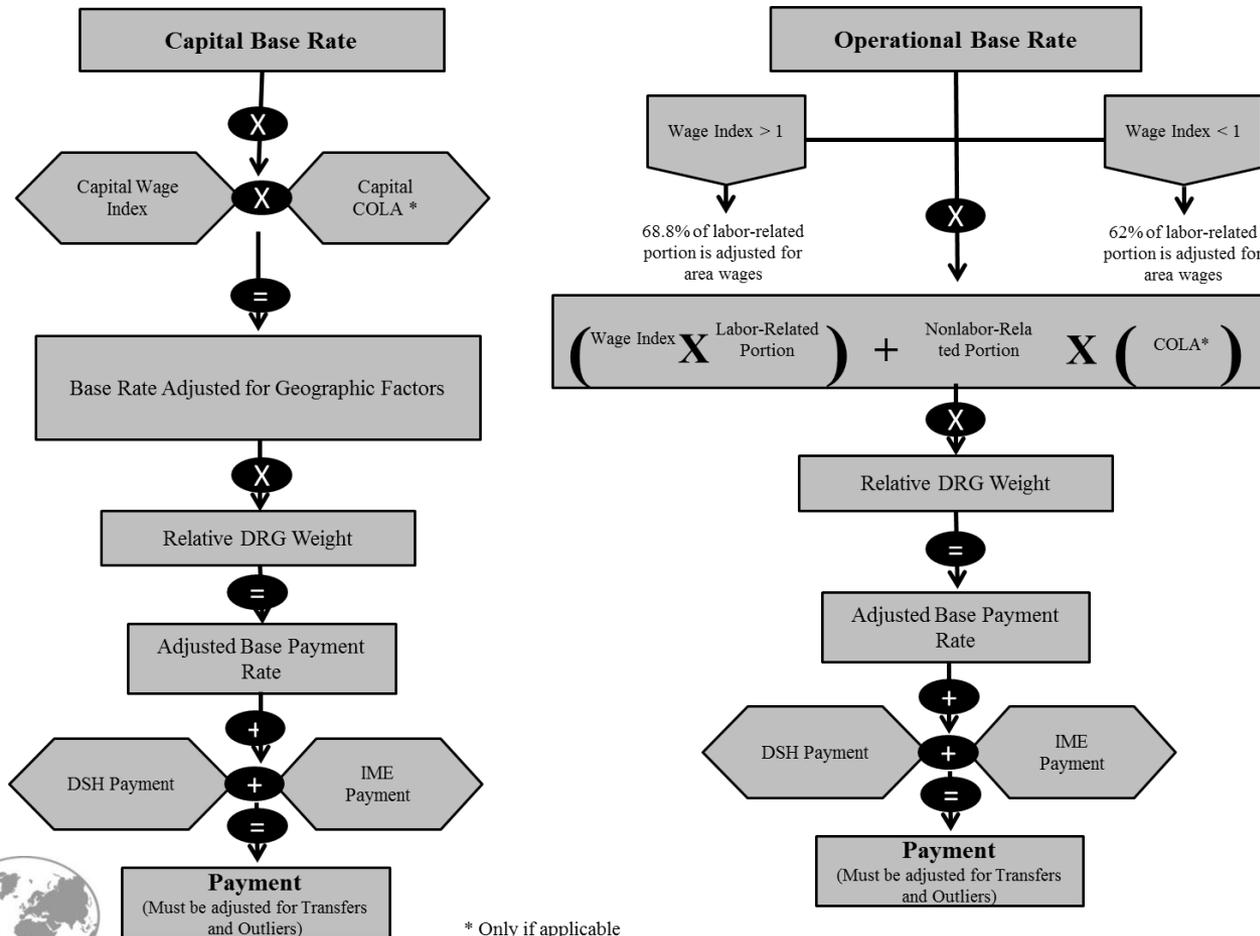
Inpatient Enterprises include:

- Hospitals
 - Short Term Acute
 - Sub-Acute Care
 - Specialty Hospitals
- Long Term Care Facilities

Types of Hospital Ownership



Determination of IPPS Capital and Operating Payments for Hospital Reimbursement



* Only if applicable

Examples of Normalizing and Controlling Adjustments for Inpatient Enterprises

Income Statement Normalizing Adjustments	Balance Sheet Normalizing Adjustments	Income Statement Control Level Adjustments	Balance Sheet Control Level Adjustments
Gains/Losses from Non-recurring Events	Accounts Receivable	Administrative and Clinical Expense (e.g., Rent)	Related Party Loans
Revenue, Expense (timing), and Bad Debt Expense Recognition	Accounts Payable	Management Fees	Loans to Shareholders
Taxes	Tangible Personal Property	Travel Expenses	Related Party Accounts Receivable
Depreciation	Real Property	Contracted Housekeeping and Dietary Services	Related Party Accounts Payable
Inter-entity Revenue/Expenses	Accrued Expenses	Related Party Lease Expenses	Long-Term Debt
Joint Expenses/Revenue Allocation	Accrued Income	Physician Services Agreement Fees	Short-Term Debt and Accounts Payable
Diagnostic Testing and Imaging Expenses	Capital Lease Recognition	Professional Development Expense	Cost and Weight of Debt
Pharmaceutical Expenses	Non-Operating Assets, e.g., endowments	Billing Expenses	Cost and Weight of Equity

Variables to Consider for Benchmarking Inpatient Enterprises

Profitability	Liquidity	Operating Efficiency	Leverage	Quality	Other Ratios
Operating Profit Margin	Current Ratio	Days in Accounts Receivable	Debt to Equity Ratio	Mortality and Morbidity Rates	Revenue per Bed Day
EBITDA Margin	Quick Ratio	Inventory Turnover	Interest Bearing Debt/Assets	Readmission Rates	Average Length of Stay
EBITDAR Margin	Working Capital to Revenue	Net Asset Turnover	Endowment to Debt	% of Procedures with Complications	Beds per Square Foot
Free Cash Flow to Equity Margin	Interest Coverage Ratio	Net Property and Equipment to Revenue	Altman Z-score	Hospital Acquired Infection Rate	Capital Expenditures to Revenue
Free Cash Flow to Firm Margin	Days of Working Capital	Revenue to Fixed Costs	Interest Coverage Ratio	Specialist Staff Mix	Depreciation to Revenue
Return on Sales	Working Capital Excluding Interest Bearing Debt	Patients per Hospitalist	Degree of Operating Leverage	Average Wait Times	Occupancy Rate
Profit per Admitted Patient	Endowment to Assets	Non-medical Staff to Medical Staff Ratio	Degree of Financial Leverage	Patient Ratings of Physicians Communication	Encounters per Physician
Medical Supplies per Adjusted Bed Day	Cash to Current Assets	Bad Debt Expense to Revenue	Degree of Total Leverage	Patient Survey Ratings of Health Promotion and Education	DRG Case Mix
Salary/Benefits Expenses	Cash to Current Liabilities	Revenue per Square Foot	Fixed Assets to Equity	Patient Ratings of Medical Staff	% of Medicaid Revenue

Variables to Consider for Hospital Revenue Projections

Type of Variable	Examples found in Hospitals
Changes in the Regulatory Environment	New Licensing Restrictions; Changes to CON laws; Moratoriums of Facilities
Changes in Reimbursement Yield	Changes in per diem rates; changes in DRGs; Changes in CPT Codes; Changes to Conversion Factor; Incentives, quality factors
Changes in the Competitive Environment	Changes in Skilled Nursing Facility Services; Change in Ambulatory Centers; Changes in Surgical and Specialty Hospitals
Changes in Technology	EHR; Minimally Invasive Surgery; Improvements to Medical Devices; New Pharmaceutical Products
Changes in Demand for Services	Shifts in Population Demographics; Growth in Population; Increase in Market Service Area Wages; Improvements in Transportation; Changes in Employment; Changes in Population; Changes in Demographics
Changes in Rivalry and Market Share	Opening/Closing of Rival Hospitals; Acquisitions by Rival Hospitals; Changes in ER Department Size
Changes in Payor Mix	Changes in Out of Pocket Expenses; Changes to Medicare Rates; Changes in Commercial Payor Coverage

Variables to Consider for Hospital Expense Projections

Type of Variable	Examples Impacting Hospitals
Changes in the Regulatory Environment	Changes to Safety Protocols; Changes in Licensing Requirements; Ownership Restrictions
Changes in the Reimbursement Environment	Changes in Covered Services; Changes in Hospital Status (e.g., CAH, etc.)
Changes in the Competitive Environment	Changes to Surgical Hospitals; Changes to Ambulatory Surgery Centers; Changes to Services by Skilled Nursing Facilities; Talent Poaching
Changes in Technology	Acquisition of New Technology; Rapid obsolescence of Existing Equipment
Changes in Demand for Services	Changes in Capital Expenditures to Meet Demand Shifts; Expansion of Inpatient Beds; Changes in Swing Beds
Changes in Rivalry and Market Share	Changes in Awareness of Services; Joint-PR Efforts; Changes in Employed Physicians
Changes in Suppliers	Just in Time (JIT) Inventories; Group Purchasing Organizations (GPOs); Ability to Obtain from Other Hospital Departments

Other Pertinent Considerations in the Valuation of Hospitals

- Trauma Certification Level
- General vs. Specialty Hospital
- For Profit vs. Not-for-Profit
- Critical Access Hospital Designation
- Sole Community Hospital Designation
- Governance
- Membership in Health System

Pertinent Considerations in the Valuation of Long-Term Care Enterprises

- Occupancy Rates
- Payor Mix
- Ancillary Services and Technical Component Service Lines
- Membership in a Long-Term Care System

Other Pertinent Considerations in the Valuation of Long-Term Care Enterprises

- Medicare Reimburses Nursing Homes Based on a Resource Utilization Group (RUG) system
- Short term revenue forecasts should consider anticipated changes in RUGs utilized by the enterprise
- Wage Indices for the market service area of the subject enterprise should be incorporated in the short term revenue forecast

Polling Question 3

Section Five

OUTPATIENT ENTERPRISES

Valuation of Outpatient Enterprises

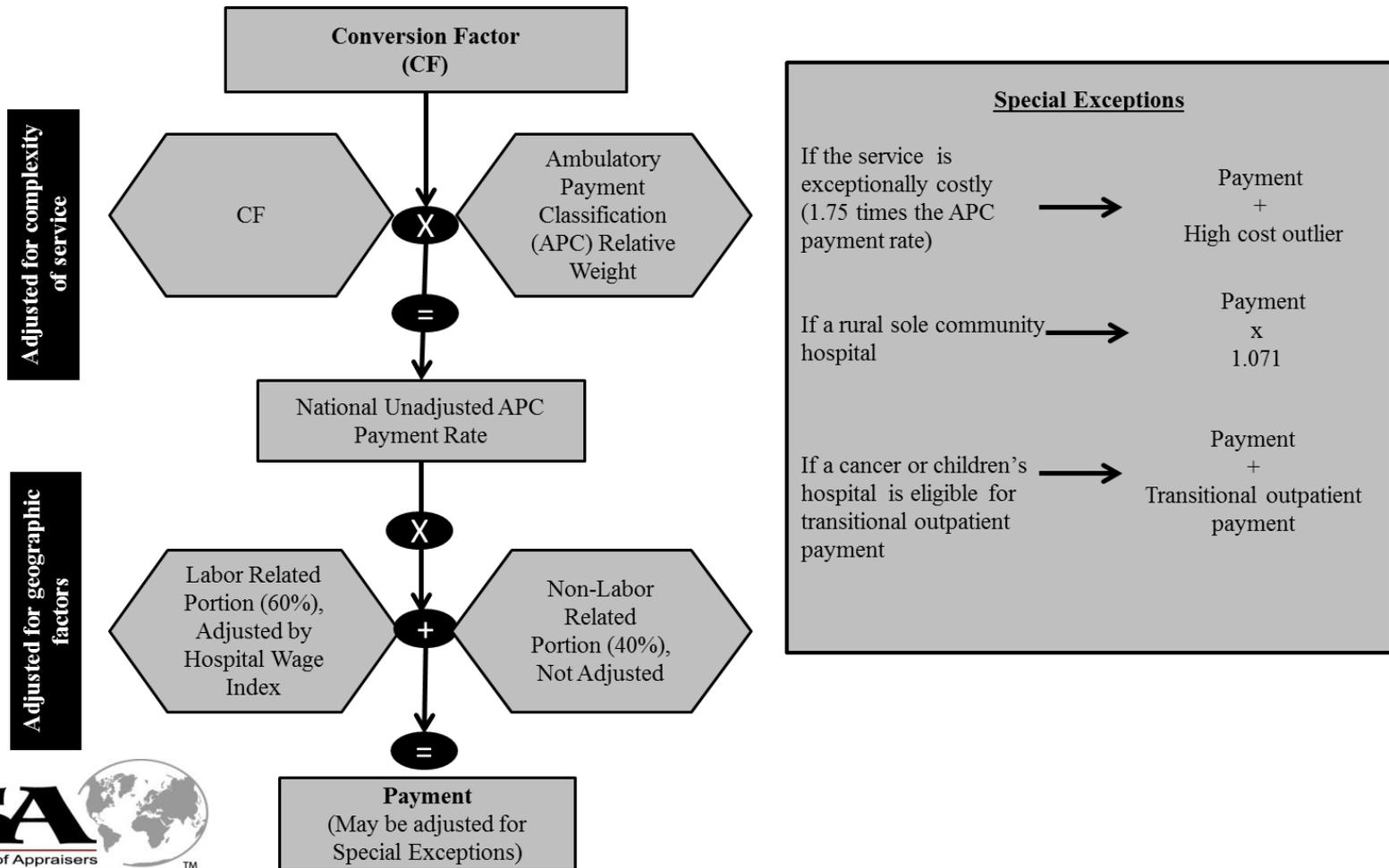
Outpatient Enterprises Include:

- Physician Professional Practices
- Allied Health Practices
- Freestanding Outpatient Ambulatory Enterprises
- Hospital Outpatient Departments
- Home Health and Hospice Enterprises

Variables to Consider for Benchmarking Outpatient Enterprises

Profitability	Liquidity	Operating Efficiency	Leverage	Quality	Other Ratios
Operating Profit Margin	Current Ratio	Days in Accounts Receivable	Debt to Equity Ratio	Mortality	Revenue per Outpatient Procedure
EBITDA Margin	Quick Ratio	Inventory Turnover	Interest Bearing Debt/Assets	% of Procedures with Complications	% of Medicaid Revenue
EBITDAR Margin	Working Capital to Revenue	Net Asset Turnover	Endowment to Debt	Patient Satisfaction Surveys	% of Medicare Revenue
Free Cash Flow to Equity Margin	Days of Working Capital	Net Property and Equipment to Revenue	Altman Z-score	% of Procedures Requiring Hospital Transfer	Capital Expenditures to Revenue
Free Cash Flow to Firm Margin	Working Capital Excluding Interest Bearing Debt	Revenue to Fixed Costs	Interest Coverage Ratio	Patient Rating of Physician Communication	Depreciation to Revenue
Return on Sales	Endowment to Assets	Patients per FTE Provider	Degree of Operating Leverage	Patient Survey Rating of Health Promotion and Education	Encounters per Provider
Profit per Outpatient Procedure	Cash to Current Assets	Non-medical Staff to Medical Staff Ratio	Degree of Financial Leverage	Patient Rating of Medical Staff	Case Mix
Return on Assets	Cash to Current Liabilities	Bad Debt Expense to Revenue	Degree of Total Leverage	Average Waiting Times	Revenue per Square Foot

Determination of OPPS Payments for Hospital Outpatient Department (HOPD) Reimbursement



Pertinent Valuation Considerations – Hospital Outpatient Departments

- **Conversion Factor** - The main distinguishing component between freestanding ASC payments and HOPD payments
 - Established from different indexes
 - *Freestanding ASCs* - Consumer price index for all urban consumers (CPI-U) (based on prices for energy & housing)
 - The only healthcare entity where the conversion factor is dictated by the CPI-U
 - *HOPDs* – Hospital market basket (driven by goods and services purchased by healthcare facilities)
 - Beginning in 2008, new, office-based procedures performed in ASCs are covered by Medicare Part B, but are not reimbursed at OPSS percentage

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

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."*
- **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
 - Selecting FMV cost to replicate or replace the owner-provider's services

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
 - Consulting expenses related to non-recurring projects

Normalizing Adjustment Considerations Pertinent to Professional Practices

Specific Examples for Physician 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 and 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

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
 - 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

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

Revenue Stream Considerations Pertinent to Professional Practices

Typical steps for projecting *reimbursement yield* of a physician professional practice include:

1. Review and analyze historical trends in the subject professional practice's payor mix
2. 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)
3. Research historical (and projected if available) trends in government payor reimbursement for the services provided at the subject enterprise

Revenue Stream Considerations Pertinent to Professional Practices

Typical steps for projecting *reimbursement yield* of a physician professional practice include (cont'd):

- (4) Research historical (and projected if available) trends in commercial and other payor reimbursement for the services provided at the subject enterprise
- (5) 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)

Pertinent Valuation Considerations – Freestanding Outpatient Enterprises

Scope of Services

- Performance of higher yield procedures
 - May produce more net economic benefit
- Performance of *more procedures*
 - *May* 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

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

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

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

Polling Question 4

Section Six

OTHER HEALTHCARE ENTERPRISES

Valuation of Other Healthcare Related Enterprises

Other Healthcare Related Enterprises Include:

- Management Services Enterprises
- Third Party Payors
- Supply Side Enterprises

Pertinent Considerations to Valuation of Management Service Organizations (MSOs)

Operating Expenses and Capital Requirements

- Economies of scale exist for many management services enterprises

Intangible Assets

- May comprise a significant portion of the value of an management services organization

Pertinent Considerations Related to the Valuation of Third Party Payors

- **Economies of Scale**
- **Adverse Selection**
- **Moral Hazard:** An individual may be more likely to engage in riskier behavior as a result of receiving coverage from a healthcare payor and the anticipated expenses related to the beneficiary may be greater after coverage is extended
- **Affordable Care Act (ACA):** Changes to the minimum MLR may have material impacts on the profitability of healthcare payors, and may affect the value indication determined by the valuation analyst

Valuation Considerations Pertinent to Supply Side Enterprises

- **Economies of Scale**
- **Intangible Assets:**
 - Current on-going contracts
 - Established client relationships
- **Additional Risk Considerations:** Supply side enterprises may need to expend time and capital in insuring that their product offerings include the most up to date technologically advanced products
- **Capital Considerations:** Continued restrictions on supply side enterprises access to capital markets may constrain their ability to take advantage of strategic opportunities

Polling Question 5

Section Seven

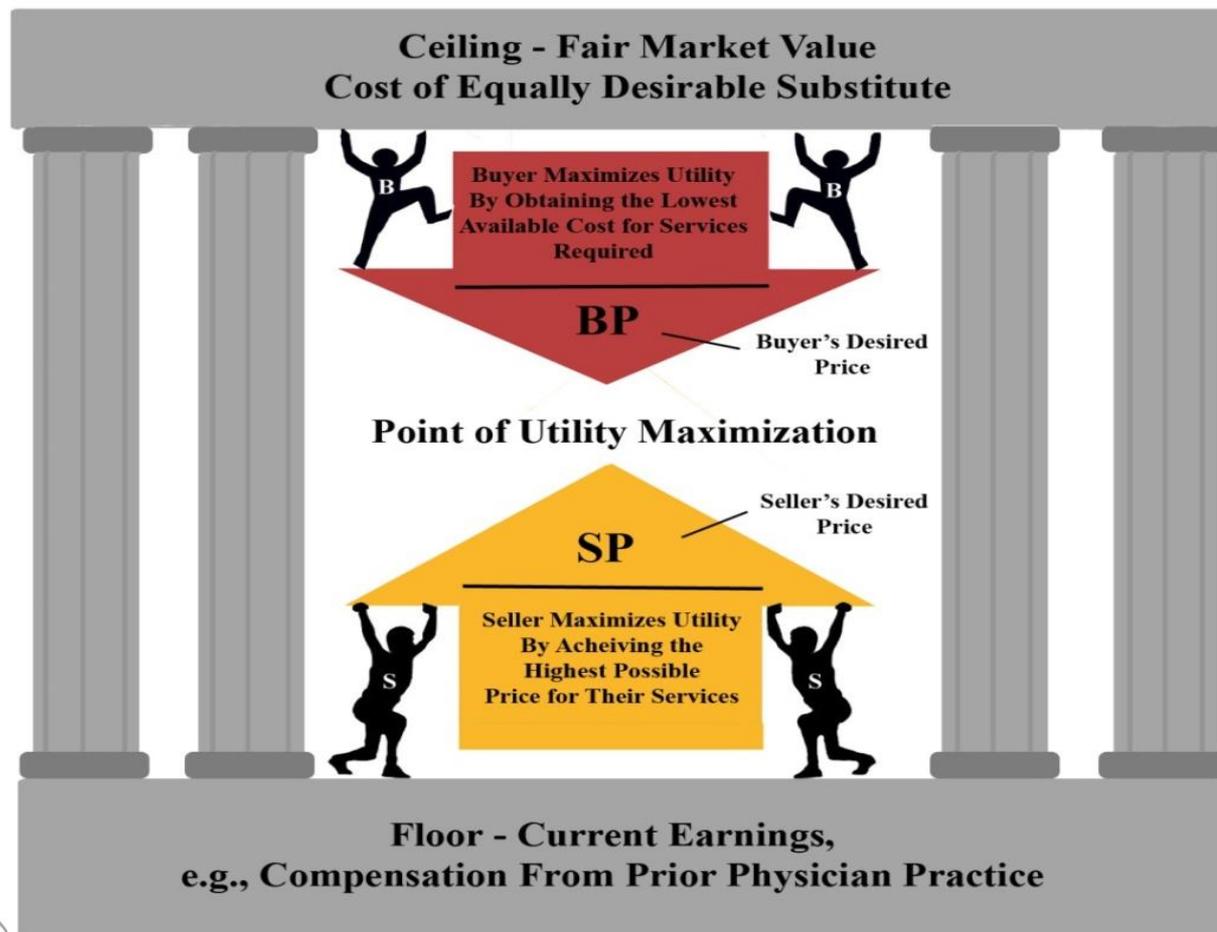
HEALTHCARE SERVICES

Valuation of Healthcare Services

In healthcare, the type of definition of value is *typically* FMV

- Healthcare transactions are subject to regulatory scrutiny:
 - **Anti-kickback Statute** – Prohibition against referrals
 - No consideration in valuation of the “*volume or value of referrals*”
 - **Stark Law** – Prohibition against physician self-referrals of DHS if physician has a financial relationship
 - **IRC 501(c)(3)** – Law of tax-exempt organizations
 - No inurement of private benefit

Valuation of Physician Compensation



Classification of Clinical Related Services

- The provision of professional medical services related to the diagnosis and treatment of patients who present with various injuries, diseases and ailments
- May include coverage and call, research, medical outreach and public health
- Coverage and call has been increasingly demanded

Classification of Non-Clinical Related Services

- TDRAs associated with the position are not directly related to the treatment of patients
- Roles: CEO, CFO, CIO, Chief Legal Counsel
 - Practice Admin, Billing Managers, Support Staff
- Successful hospital enterprises have understood
 - *“To effectively respond to the economic incentives of reform, a hospital should achieve a deeper level of integration with the physicians that practice there.”*

Examples of Healthcare Services Positions

Professional Titles	Description of Typical TDRAs	Classification (i.e., Clinical Related, Non-Clinical Related, Both)
Staff Physician	Provide professional medical services related to the diagnosis and treatment of patients who present with various injuries, diseases & ailments	Clinical
Service Line Medical Director	Similar to "Medical Director, General" but specific to a particular clinical service line, e.g., cardiology, surgery	Both
Medical Director of Clinical Research	Responsible for research design, methodology, data collection, analysis, & summation of outcomes; grant proposal preparation; research conferences; compliance with protocols, regulations, and research objectives; liaison between finding agencies & the organization	Both
Medical Director of Clinical Operations	Monitor day-to-day operations; develops, implements, & monitors policies/ procedures; oversees non-physician technical and records staff; Responsible for: improving quality and reducing cost by streamlining workforce & technology	Both
Medical Director of Quality Management	Responsible for developing and implementing programs to ensure compliance with internal & external quality goals & benchmark	Both
Residency/ Fellowship Program Director	Responsible for organizational policy and compliance, strategic planning, marketing, physician compensation, reimbursement, oversees clinical research, teaching, supervises residents & fellows, & overall medical education curriculum	Both
President of Medical Staff	Duties generally include: liaison among/between physicians, management, governing boards, organizations, and the community; setting medical staff policies, procedures, and credentialing	Both
Chief Operating Officer	Consults, advises, and assists the CEO and/or practice administrator in providing leadership and direction in planning, directing, and coordinating both patient and non-patient care activities	Both
Medical Director, General	Generally responsible for all activities related to the delivery of medical care and clinical services such as cost, management, utilization review, quality assurance, and medical protocol development as well as overseeing the activities of group physicians, including recruiting and credentialing; larger organizations may contain more than of these positions; It should be noted that these roles may be performed for various types of entities including: hospitals, HMO/PPO/Health Plan, PHO, MSO, Academic Medical Center, Group Practices, etc.	Both
Associate/Assistant Medical Director	Assist the Medical Director in all respects, including: clinical services, utilization review, medical protocol development; these positions are found in the same type of entities as Medical Directors	Both
Chief Medical Information Officer	Similar to "Chief Information Officer" but performed by a licensed physician with more of a focus on leveraging clinical data to reduce to variance in care processes & quality & achieving "process agility"	Both



Examples of Healthcare Services Positions

Professional Titles	Description of Typical TDRAs	Classification (i.e., Clinical Related, Non-Clinical Related, or Both)
Chief Human Resources Officer	Responsible for all human resource management and development programs and procedures including: employment, compensation and benefits, employee/labor relations, education and training, health and safety, and compliance with employment laws and regulations.	Both
Physician Chief Executive Officer	Develops and monitors organizational policy with other management personnel and board of directors; responsible for the overall operation of the organization, including patient care and contract relations; oversees activities related to growth and expansion of the organization; typically serves as liaison between the organization, the community, and the board of directors.	Both
Chief Financial Officer	Develops financial policies and oversees their implementation; typically monitors a variety of financial activities including: budgeting, accounting, billing, payer contracting, collections and preparation of tax returns; may obtain funds for capital development; usually prepares annual reports and long-term projections.	Non-Clinical
Chief Executive Officer	Maintains broad responsibilities for all administrative positions of the medical group; typically oversees management personnel with direct responsibilities for the specific functional areas of the organization.	Non-Clinical
Chief Information Officer	Contributes to general business planning regarding technology; accountable for directing data integrity and confidentiality of patient care information; identifies new developments in information system technology and strategizes organizational modifications.	Non-Clinical
Chief Legal Counsel	Responsible for planning, managing and coordinating the legal affairs of the medical group; directs and coordinates activities of outside counsel; responsible for ensuring organizational activities meet legal and regulatory requirements; provides legal guidance with the goal of reducing risk to the medical group.	Non-Clinical



Valuation of Clinical Related Services

- Principles of *substitution* and *utility* are determinants of the economic value that is inherent in compensation arrangements
- Types of compensation plans:
 - Tiered Compensation
 - POD Compensation Plan
 - Value Drivers

Valuation of Non-Clinical Related Services

- FMV of administrative, management, and executive services falls under principles of utility and substitution
- May be based on past clinical practice earnings
- Should be compared to applicable, external benchmarking sources reflecting similar TDRAs
- All non-clinical related TDRAs should be surveyed for redundancies

Industry Benchmark Sources for Physician Services Production and Compensation

	A	B	C	D	E
	Name	Publisher	Clinical	Medical Director	On-Call
1	Medical Group Compensation and Financial Survey	American Medical Group Association	x	x	
2	Cost Survey for Single-Specialty Practices	Medical Group Management Association	x		
3	Physician Compensation and Productivity Survey Report	Sullivan Cotter and Associates, Inc.	x	x	x
4	Physician Compensation Survey	National Foundation for Trauma Care	x		
5	Physician Executive Compensation Survey	American College of Physician Executives		x	
6	Physician Compensation and Production Survey	Medical Group Management Association	x		
7	Physician Salary Survey Report: Hospital-Based Group HMO Practice	John R. Zabka Associates	x	x	
8	Survey Report on Hospital and Healthcare Management Compensation	Watson Wyatt Data Services		x	
9	Cost Survey for Multispecialty Practices	Medical Group Management Association	x		
10	Healthcare Executive Compensation Survey	Integrated Healthcare Strategies		x	
11	Physician On-Call Pay Survey Report	Sullivan Cotter and Associates, Inc.			x
12	Management Compensation Survey	Medical Group Management Association		x	
13	Survey of Manager and Executive Compensation in Hospitals and Health Systems	Sullivan Cotter and Associates, Inc.		x	
14	Executive Compensation Assessor	Economic Research Institute		x	
15	Top Management and Executive	Abbott Langer Association, Economic Research Institute, and Salaries Review		x	
16	Executive Pay in the Biopharmaceutical Industry	Top 5 Data Services, Inc.		x	
17	Executive Pay in the Medical Device Industry	Top 5 Data Services, Inc.		x	
18	Hospital Salary & Benefits Report, 2007-2008	John R. Zabka Associates, Inc.		x	
19	US IHN Health Networks Compensation Survey Suite	Mercer, LLC		x	
20	Intellimarker	American Association of Ambulatory Surgery Centers	x	x	
21	Medical Directorship and On-Call Compensation Survey	Medical Group Management Association		x	x

Polling Question 6

Establishing FMV and Commercial Reasonableness

- With more physicians working in hospitals, there is more regulation and legal permissibility of arrangements under state and federal laws
- Physician compensation arrangements are scrutinized
- FMV examines the *range of dollars*
- Commercial reasonableness examines the *reasonableness of the business arrangement*
 - “...a sensible, prudent business agreement, from the perspective of the particular parties involved, even in the absence of any potential referrals.”

Commercial Reasonableness

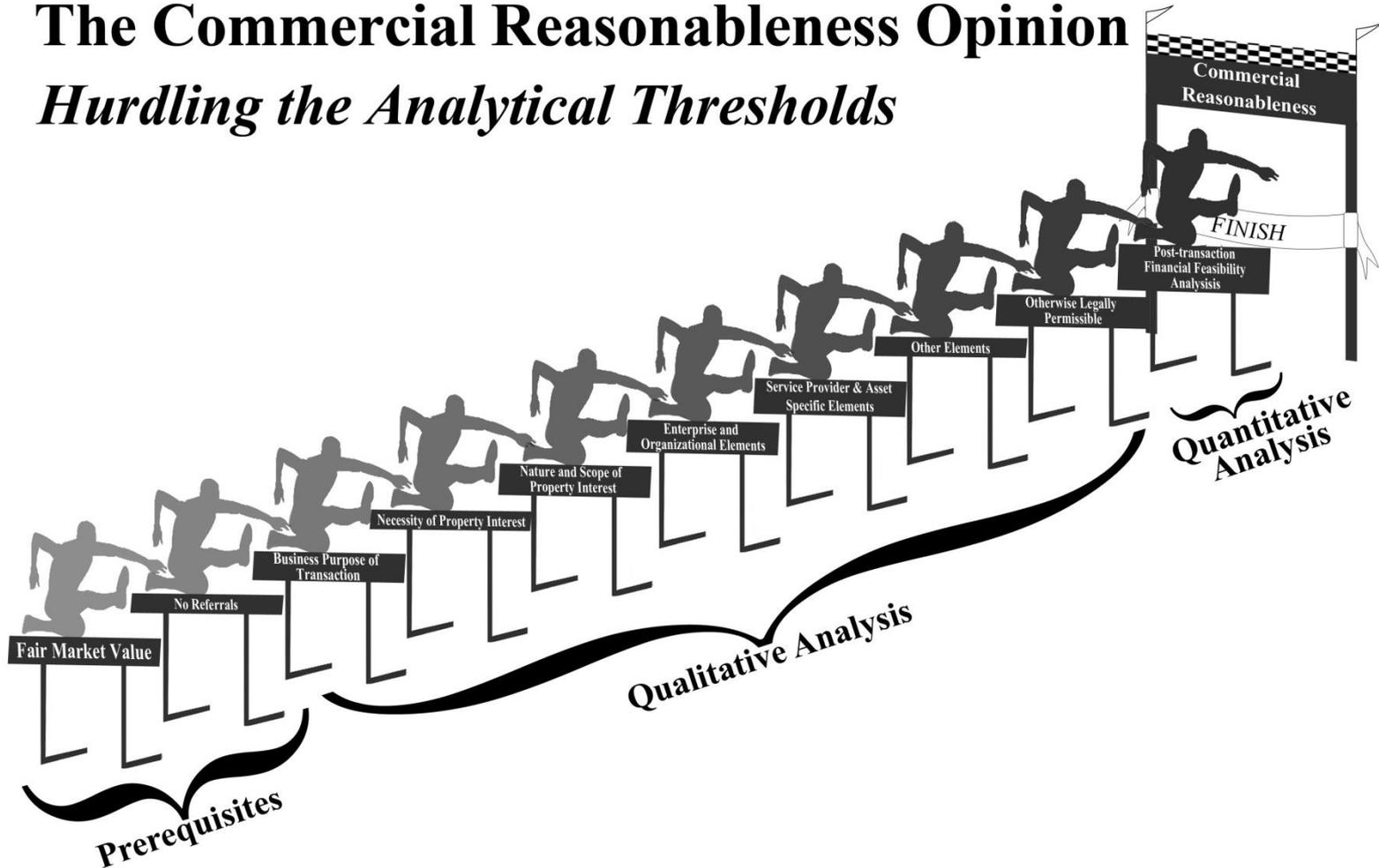
- Arrangement appears to be “*a sensible, prudent business agreement, from the perspective of the particular parties involved, even in the absence of any potential referrals.*”
- Both services and payments should be considered commercial reasonable for the arrangement to survive scrutiny

Threshold of Commercial Reasonableness

- The development and rendering of commercial reasonableness opinions is an increasingly important service offered
- Similar to a *fairness opinion*
- Related to FMV
- Commercial reasonableness thresholds
 - Individual parts of a transaction
 - Entire transaction

The Commercial Reasonableness Opinion

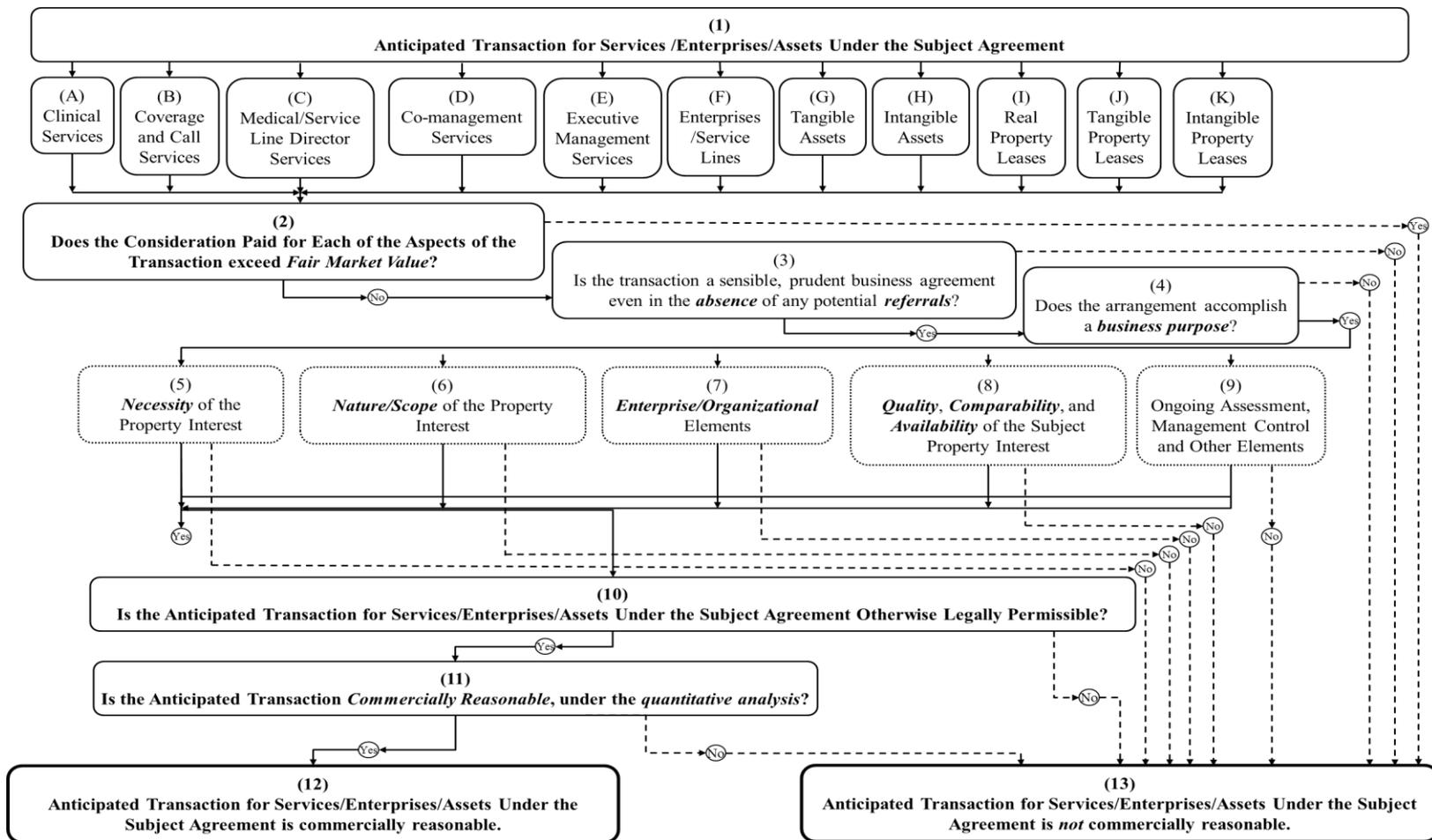
Hurdling the Analytical Thresholds



Commercial Reasonableness Analysis

- Should contain both *qualitative* and *quantitative* analysis
- Should consider the factors within the analysis not in isolation
- **Qualitative Analysis**
 - Undertaken to better understand the facts and circumstances pertinent to the anticipated transaction
- **Quantitative Analysis**
 - Takes into account all consideration to be paid by purchasers and lessees to sellers and lessors

Steps in Determining Commercial Reasonableness



Purchase Price Allocation

- Identifying and measuring the specific assets (*tangible and intangible*) and assigning a portion of purchase price to each
- “...*the ability at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions.*”

Concluding Remarks

Pursuing Interdisciplinary Collaboration

Healthcare Industry Specific Appraisal Assignments

Real Estate Appraisal • Machinery & Technical Specialties

Personal Property • Business Valuation • Intangible Assets/IP

Separate and Distinct Disciplines in the Same Profession

- Similar Tools to Solve Similar Problems
- Shared Clients
- Interdisciplinary Approach Yields Significant Benefit to Both Clients and Appraisers

We CAN Work Together!

Concluding Remarks

We Can (and should) All Work Together!

- To obtain the requisite background for forecasting the future performance of healthcare enterprises, assets, and services in the current dynamic era of healthcare reform, valuation professionals should develop and maintain an in-depth understanding of the history and the development of healthcare delivery, as well as, the unique dynamics of those often complex business arrangements that comprise newly emerging healthcare organizations and the various elements of property value involved in each.
- A multidisciplinary project team of appraisers has the potential to provide an enhanced scope and diversity of knowledge and breadth of experience to the benefit of both the appraisers and the client.

Concluding Remarks

We Can (and should) All Work Together!

- When developing an understanding of the forces and stakeholders that have the potential to drive healthcare markets, valuation professionals must examine the subject enterprises, assets, and services as they relate to and within the context of:
 - ***“The Four Pillars of the Healthcare Industry”***
 - Reimbursement
 - Regulatory
 - Competition
 - Technology
- These four elements serve as a conceptual framework for analyzing the viability, efficiency, efficacy, and productivity of the subject property interest(s)

Concluding Remarks

We Can All Work Together!

- More informed and uniform valuation practice would benefit the users of healthcare valuations and improve public confidence in appraisers
- To enhance competency, significant specialized education and training is an important benefit for healthcare appraisers and clients
- Given these issues, a multidisciplinary approach toward advanced education related to healthcare industry valuation is an important initiative of the ASA, as the premier multidisciplinary valuation society of professional appraisers