

## Threshold of Commercial Reasonableness: Quantitative Analysis

Due to heightened legal and regulatory scrutiny related to healthcare transactions, the issuance of *commercial reasonableness* opinions is a growing area of focus for professional advisors and consultants in the healthcare industry. As discussed in the first installment of this three-part Health Capital Topics series on *commercial reasonableness*, there is no single, universally accepted definition of *commercial reasonableness*. However, guidance for its interpretation can be gleaned from: (1) the *Internal Revenue Code* (IRC); (2) Treasury Regulations; (3) other *Internal Revenue Service* (IRS) publications and pronouncements related to *reasonable compensation*; (4) *Office of Inspector General* (OIG) Advisory Opinions and pronouncements; (5) Federal Anti-Kickback Regulations; (6) the U.S. Public Health Code; and, (7) pertinent case law.<sup>1</sup> As discussed in the second installment of this series, the key components of a *commercial reasonableness* analysis (CR analysis) include both a consideration of the *qualitative* factors that affect the *commercial reasonableness* opinion, as well as a *quantitative* analysis of the elements of the anticipated transaction in the aggregate.<sup>2</sup> This is the third and final article in the three-part Health Capital Topics series on *commercial reasonableness*, and addresses the *quantitative* components of a defensible CR analysis in today's increasingly scrutinized healthcare marketplace.

Rendering a *commercial reasonableness* opinion requires that a specific set of *core competencies* be mastered by the valuation analyst *apart from*, but *related to*, the more traditional *knowledge base*, *skill set*, and *experience* required in rendering *Fair Market Value* (FMV) opinions related to the appraisal of the *enterprises*, *assets*, and/or *services* being transacted.<sup>3</sup> For example, when opining as to the FMV of an *individual discrete subject property interest*, a valuation analyst may use an *income approach*, which generally involves the following steps:<sup>4</sup>

- (1) *Projecting the future net economic benefit* accruing to the owner of the subject property interest;
- (2) *Determining the risk adjusted required rate of return* associated with the projected future net

economic benefit arising from ownership or control of the subject property interest;

- (3) *Discounting* the projected future net economic benefit related to the subject property interest back to the valuation date; and,
- (4) *Summing all discounted future net economic benefit* related to the subject property interest to determine a value as of the valuation date.

The *post-transaction financial feasibility analysis* used in assessing the *quantitative* factors of an anticipated transaction is similar to the *income approach* in that it considers *projected future net economic benefit streams*, and an assessment of the *risk* related to the probability of realizing those benefits streams. However, a CR analysis differs from a FMV opinion in that it considers:

- (1) "*All consideration to be paid by purchasers and lessees to sellers and lessors,*"<sup>5</sup> in the aggregate, when *projecting future net economic benefit*, not just the net economic benefits arising from the *individual discrete* subject property interests comprising the anticipated transaction;
- (2) The *aggregate projected net economic benefits* of ownership or control accruing to a *particular buyer*, which may include any "*unique synergies the ... particular buyer would realize as a result of acquiring the asset,*"<sup>6</sup> not the aggregate *projected net economic benefits* accruing to the *universe* of typical buyers, sellers, owners, and investors; and,
- (3) An *economic cost/benefit analysis* (e.g., *payback period*, *net present value*, and *internal rate of return*) to determine whether the anticipated transaction makes "*commercial sense*" for a *particular buyer*, not just a single estimate or range of *monetary values* for the *universe* of buyers, sellers, owners, and investors.<sup>7</sup>

The distinctions between a CR analysis and a FMV opinion discussed above, may lead to different underlying assumption being utilized in a CR analysis, including the following:

- (1) *Projecting future net economic benefits* inclusive of the factors available to a *particular buyer* that

may *not be available* under the FMV assumption of a *universe* of buyers, sellers, owners, and investors, e.g.:

- (a) *Revenue synergies*, e.g., increases in reimbursement yield which may result from a hospital *converting a free-standing physician practice*, which bills *Ancillary Service and Technical Component (ASTC)* services to Medicare under the *Medicare Physician Fee Schedule (MPFS)* on a non-facility basis using *Current Procedural Terminology (CPT)* codes, to a *Hospital Outpatient Department (HOPD)*, which bills ASTC services to Medicare under the *HOPD Prospective Payment System (PPS)* using *ambulatory payment classification (APC)* codes;
  - (b) *Operating expense synergies*, e.g., the historical operating expense burdens associated with the target entity's billing staff may be reduced due to the *redundancy* and *reduplication* in the services that an acquirer may already provide; and,
  - (c) *Capital expenses synergies*, e.g., the fixed costs per patient related to an *electronic health records (EHR)* system may be reduced due to an increase in EHR utilization resulting from the anticipated transaction; and,
- (2) *Determining the risk adjusted required rate of return* for a *particular buyer* inclusive of factors that may *not be available* under the FMV assumption of a *universe* of buyers, sellers, owners, and investors, such as:
- (a) *Operating risk reductions*, e.g., decreases in risk which may result from a diverse, multispecialty integrated health system acquiring a focused, single specialty free-standing physician practice;<sup>8</sup> and,
  - (b) *Financial risk reductions*, e.g., a large integrated health system may enjoy greater access to capital and, thus, a lower cost of capital than a small free-standing physician practice.<sup>9</sup>

It should be noted that valuation analyst must take care to *avoid double counting* when considering the various *net economic benefit synergies* and *risk synergies* described above. For example, if the valuation analyst projects a reduction in the target entity's billing staff, then he may wish to consider increasing the *operating risk return* to reflect the additional risk required to attain the projected billing staff levels.

When performing a *cost/benefit analysis* for a *particular buyer*, a valuation analyst may also wish to consider the *value metrics*, which result from the application of one or more of the following analytical methods, to serve as a basis for a *commercial reasonableness* opinion related to an anticipated transaction:

- (1) *Net present value (NPV) analysis*, which examines the total *expected risk-adjusted future net economic benefits* (e.g., present value of the future net cash flows) arising from the total *initial economic expense burdens* (e.g., initial cash outlays);<sup>10</sup>
- (2) *Internal rate of return (IRR) analysis*, which contrasts an organization's *risk adjusted required rate of return* (or hurdle rate) against the *discount rate* that, when applied to the *expected future net economic benefits* of the subject property interest, results in a **zero net present value**;<sup>11</sup>
- (3) *Average accounting return (AAR) analysis*, which determines the average of the *net income* arising from the assets or services to be acquired in the anticipated transaction *for each discrete accounting period*, divided by the book value of those subject property interest(s) acquired *for each of the corresponding accounting periods*;<sup>12</sup>
- (4) *Discounted payback period analysis*, which is similar to a *payback period analysis*, calculates the number of discrete periods "*...until the sum of the discounted cash flow is equal to the initial investment*;"<sup>13</sup> and,
- (5) *Payback period analysis*, which calculates the number of discrete periods necessary for "*the cumulative forecasted [undiscounted] cash flow [to] equal the initial investment*."<sup>14</sup>

Each of the *value metrics*, which results from the *cost/benefit analyses* described above, should be considered within the context of the *qualitative factors* of the CR analysis.<sup>15</sup> This is especially true when the *cost/benefit analysis* reflects a financial loss, as a transaction may still be *commercially reasonable* after the *non-monetary benefits* that may arise from the anticipated transaction are taken into consideration. For example, the benefits produced by a transaction that results in an expansion into new geographic areas and/or new service lines or an improvement in the access to technology and/or innovation may provide substantial evidence of a prudent business decision, i.e., *commercial reasonableness*.<sup>16</sup>

In today's healthcare delivery system, hospitals have an expanded scope of responsibility to be the integrators and coordinators of care for their market service areas, often serving as the only and last resort of critical care in the health and well-being of their communities. In these instances, non-profit, tax-exempt entities may enter into prudent, sensible business transactions to create a social benefit "*in furtherance of [their] charitable purpose*," which may necessitate an integration support payment that results in a financial loss.<sup>17</sup>

Mastering the foundational principles for a CR analysis – including accurately understanding the definitions of *commercial reasonableness*, as well as the differences between a FMV opinion and a CR analysis – is essential before an analyst renders a

*commercial reasonableness* opinion on behalf of a client.<sup>18</sup> In an era of increasing regulatory scrutiny and growing healthcare transaction volume, proper consideration of the threshold of *commercial reasonableness*, within the *qualitative* and *quantitative* aspects of a CR analysis, can increase the defensibility of an opinion that the proposed transaction is in regulatory compliance, including whether the anticipated transaction takes into consideration “*value or volume of referrals*.”<sup>19</sup> In addition, a transaction that is *financially feasible* under the *quantitative analysis* may not necessarily be *commercially reasonable*. The analyst should also perform a *qualitative analysis* as part of the determination of *commercial reasonableness*.

This article concludes the three-part series on the development of a *commercial reasonableness opinion*, which discussed the: (1) *Definitions Related to the Threshold of Commercial Reasonableness*; (2) *The Qualitative Analysis Related to the Threshold of Commercial Reasonableness*; and, (3) *The Quantitative Analysis Related to the Threshold of Commercial Reasonableness*.

Should you have any questions regarding *commercial reasonableness opinions*, please do not hesitate to contact Health Capital Consultants at (800) FYI – VALU [394-8258], or via email at [solutions@healthcapital.com](mailto:solutions@healthcapital.com).

- 
- 1 “Threshold of Commercial Reasonableness,” Health Capital Topics, Vol. 7, Issue 11, November 2014, [http://www.healthcapital.com/hcc/newsletter/11\\_14/DEFINITIONS.pdf](http://www.healthcapital.com/hcc/newsletter/11_14/DEFINITIONS.pdf) (Accessed 1/12/15).
  - 2 *Ibid.*
  - 3 *Ibid.*
  - 4 “Valuing a Business: The Analysis and Appraisal of Closely Held Companies”, By Shannon Pratt and Alina Niculita, 5th Edition, McGraw Hill, 2008, p. 174-182.
  - 5 “Subpart C: Permissive Exclusions” 42 C.F.R. §1001.952 (2012); “Exclusions from Medicare and Limitations on Medicare Payment” 42 C.F.R. §411.357(d)(1)(iii) (2012); “Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services,” By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Vol. 2, Hoboken, NJ: John Wiley & Sons, Inc., 2014, p. 963.
  - 6 “BV201: Introduction to Business Valuation”, American Society of Appraisers, 2012, p. 15-16; “Medicare and State Health Care Programs: Fraud and Abuse: Clarifications of the Initial OIG Safe Harbor Provisions and Establishment of Additional Safe Harbor Provisions Under the Anti-Kickback Statute” 64 Federal Register 63526 (11/19/99).

- 
- 7 “Medicare Program: Physicians’ Referrals to Healthcare Entities with which They Have Financial Relationships (Phase II)”, 69 Fed. Reg. 16093, (3/26/04).
  - 8 In general, the greater the diversity of an asset (or portfolio of assets), the lower the risk. For example, see “Investments,” By William Sharpe, 2<sup>nd</sup> Edition, Englewood Cliffs, NJ: Prentice-Hall, 1981, p. 119-131.
  - 9 In general, large entities are less risky than smaller entities. For example, see “The Cross-Section of Expected Stock Returns,” By Eugene Fama and Kenneth French, Journal of Finance, Vol. XLVII, No. 2, June 1992, p. 427-465.
  - 10 “Fundamentals of Corporate Finance,” By Stephen Ross, et al., Second Edition, Boston, MA: Irwin, 1993, p. 220.
  - 11 “Principles of Corporate Finance,” By Richard Brealey, et al., Ninth Edition, New York, NY: McGraw-Hill Irwin, 2008, p. 122.
  - 12 Ross, 1993, p. 231.
  - 13 *Ibid.*, p. 228.
  - 14 Brealey, 2008, p. 120.
  - 15 For a detailed discussion on the *qualitative factors* of the CR analysis, see “Threshold of Commercial Reasonableness: The Qualitative Analysis,” Health Capital Topics, Vol. 7, Issue 11, December 2014, [http://www.healthcapital.com/hcc/newsletter/12\\_14/QUALITATIVE.pdf](http://www.healthcapital.com/hcc/newsletter/12_14/QUALITATIVE.pdf) (Accessed 1/12/15); or, “Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services,” By Robert James Cimasi, MHA, ASA, FRICS, MCBA, CVA, CM&AA, Vol. 2, Hoboken, NJ: John Wiley & Sons, Inc., 2014, p. 940-963.
  - 16 See further examples described in Health Capital Consultants, “Threshold of Commercial Reasonableness: The Qualitative Analysis,” December 2014; “Hospital Mergers: Why they Work, Why they Don’t,” By Larry Scanlan, Chicago, IL: Health Forum Inc., 2010, p. 27; “Mergers, Acquisitions, and Corporate Restructurings” By Patrick Gaughan, Hoboken, NJ: John Wiley & Sons, Inc., 2011, p. 14; “Middle Market M&A: Handbook for Investment Banking and Business Consulting,” By Kenneth Marks, Hoboken, NJ: John Wiley & Sons, Inc., 2012, p. 28; “IRS Revenue Ruling 69-545, 1969-2 C.B. 117,” Internal Revenue Service, <http://www.irs.gov/pub/irs-tege/rr69-545.pdf> (Accessed 1/22/14); “Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services,” By Robert James Cimasi, MHA, ASA, FRICS, MCBA, CVA, CM&AA, Vol. 2, Hoboken, NJ: John Wiley & Sons, Inc., 2014, p. 183.
  - 17 *Ibid.*
  - 18 Health Capital Consultants, “Threshold of Commercial Reasonableness”, November 2014.
  - 19 “Limitation on Certain Physician Referrals” 42 U.S.C. § 1395nn(e) (2012).; Health Capital Consultants, “Threshold of Commercial Reasonableness: The Qualitative Analysis,” December 2014.



(800) FYI - VALU

*Providing Solutions  
in the Era of  
Healthcare Reform*

Founded in 1993, HCC is a  
nationally recognized healthcare  
economic financial consulting firm

- [HCC Home](#)
- [Firm Profile](#)
- [HCC Services](#)
- [HCC Experts](#)
- [Clients & Projects](#)
- [HCC News](#)
- [Upcoming Events](#)
- [Contact Us](#)
- [Email Us](#)

#### HEALTH CAPITAL

CONSULTANTS (HCC) is an established, nationally recognized healthcare financial and economic consulting firm headquartered in St. Louis, Missouri, with regional personnel nationwide. Founded in 1993, HCC has served clients in over 45 states, in providing services including: valuation in all healthcare sectors; financial analysis, including the development of forecasts, budgets and income distribution plans; healthcare provider related intermediary services, including integration, affiliation, acquisition and divestiture; Certificate of Need (CON) and regulatory consulting; litigation support and expert witness services; and, industry research services for healthcare providers and their advisors. HCC's accredited professionals are supported by an experienced research and library support staff to maintain a thorough and extensive knowledge of the healthcare reimbursement, regulatory, technological and competitive environment.



**Robert James Cimasi**, MHA, ASA, FRICS, MCBA, 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 holds a Masters in Health Administration from the University of Maryland, as well as several professional designations: Accredited Senior Appraiser (ASA – American Society of Appraisers); Fellow Royal Institution of Chartered Surveyors (FRICS – Royal Institute of Chartered Surveyors); Master Certified Business Appraiser (MCBA – Institute of Business Appraisers); Accredited Valuation Analyst (AVA – National Association of Certified Valuators and Analysts); and, Certified Merger & Acquisition Advisor (CM&AA – Alliance of Merger & Acquisition Advisors). He has served as an expert witness on cases in numerous courts, and has provided testimony before federal and state legislative committees. He is a nationally known speaker on healthcare industry topics, the author of several books, the latest of which include: “*Accountable Care Organizations: Value Metrics and Capital Formation*” [2013 - Taylor & Francis, a division of CRC Press], “*The Adviser’s Guide to Healthcare*” – Vols. I, II & III [2010 – AICPA], and “*The U.S. Healthcare Certificate of Need Sourcebook*” [2005 - Beard Books]. His most recent book, entitled “*Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services*” was published by John Wiley & Sons in March 2014.

Mr. Cimasi is the author of numerous additional chapters in anthologies; books, and legal treatises; published articles in peer reviewed and industry trade journals; research papers and case studies; and, is often quoted by healthcare industry press. In 2006, Mr. Cimasi was honored with the prestigious “*Shannon Pratt Award in Business Valuation*” conferred by the Institute of Business Appraisers. Mr. Cimasi serves on the Editorial Board of the Business Appraisals Practice of the Institute of Business Appraisers, of which he is a member of the College of Fellows. In 2011, he was named a Fellow of the Royal Institution of Chartered Surveyors (RICS).



**Todd A. Zigrang**, MBA, MHA, ASA, FACHE, is the President of **HEALTH CAPITAL CONSULTANTS (HCC)**, where he focuses on the areas valuation and financial analysis for hospitals and other healthcare enterprises. Mr. Zigrang has significant physician integration and financial analysis experience, and has participated in the development of a physician-owned multi-specialty MSO and networks involving a wide range of specialties; physician-owned hospitals, as well as several limited liability companies for the purpose of acquiring acute care and specialty hospitals, ASCs and other ancillary facilities; participated in the evaluation and negotiation of managed care contracts, performed and assisted in the valuation of various healthcare entities and related litigation support engagements; created pro-forma financials; written business plans; conducted a range of industry research; completed due diligence practice analysis; overseen the selection process for vendors, contractors, and architects; and, worked on the arrangement of financing.

Mr. Zigrang holds a Master of Science in Health Administration and a Masters in Business Administration from the University of Missouri at Columbia. He is a Fellow of the American College of Healthcare Executives, and serves as President of the St. Louis Chapter of the American Society of Appraisers (ASA). He has co-authored “*Research and Financial Benchmarking in the Healthcare Industry*” (STP Financial Management) and “*Healthcare Industry Research and its Application in Financial Consulting*” (Aspen Publishers). He has additionally taught before the Institute of Business Appraisers and CPA Leadership Institute, and has presented healthcare industry valuation related research papers before the Healthcare Financial Management Association; the National CPA Health Care Adviser’s Association; Association for Corporate Growth; Infocast Executive Education Series; the St. Louis Business Valuation Roundtable; and, Physician Hospitals of America.



**Matthew J. Wagner**, MBA, CFA, is Senior Vice President of **HEALTH CAPITAL CONSULTANTS (HCC)**, where he focuses on the areas of valuation and financial analysis. Mr. Wagner has provided valuation services regarding various healthcare related enterprises, assets and services, including but not limited to, physician practices, diagnostic imaging service lines, ambulatory surgery centers, physician-owned insurance plans, equity purchase options, physician clinical compensation, and healthcare equipment leases.



**John R. Chwarzinski**, MSF, MAE, is Vice President of **HEALTH CAPITAL CONSULTANTS (HCC)**. Mr. Chwarzinski holds a Master’s Degree in Economics from the University of Missouri – St. Louis, as well as, a Master’s Degree in Finance from the John M. Olin School of Business at Washington University in St. Louis. Mr. Chwarzinski’s areas of expertise include advanced statistical analysis, econometric modeling, and economic and financial analysis.



**Jessica L. Bailey**, Esq., is the Director of Research of **HEALTH CAPITAL CONSULTANTS (HCC)**, where she conducts project management and consulting services related to the impact of both federal and state regulations on healthcare exempt organization transactions and provides research services necessary to support certified opinions of value related to the Fair Market Value and Commercial Reasonableness of transactions related to healthcare enterprises, assets, and services. Ms. Bailey is a member of the Missouri and Illinois Bars and holds a J.D. and Health Law Certificate from Saint Louis University School of Law, where she served as Fall Managing Editor for the Journal of Health Law and Policy.