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Contents

- 5 Considering Forecasts of the Economy's Long-Term Growth Rate When Determining a Firm's Stable Growth Rate
- 9 *In the Know...* A Discussion of a Significant Court Ruling on Tax Affecting
- 11 *Expert Tools...* A Review of *Standards of Value: Theory and Applications*



Letters to the Editor

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CRITICAL CONDITION

A Coding Analysis for a Physician Practice Valuation

By Mark O. Dietrich, CPA/ABV, and Frank Cohen, CMPA

INTRODUCTION

At the outset, we should emphasize that a coding analysis is not always feasible. In a number of circumstances, the data may not be available because of poor information systems or a refusal to provide the data. Depending upon the nature of the engagement, the analyst may want to consider the implications of the lack of availability or a refusal to supply data. That said, this article focuses on the significance of a coding analysis. Basic coding analysis is within the reach of the valuation analyst using the approaches and tools described herein.

ESTABLISHED PATIENT OFFICE VISITS

The most commonly used codes in the Medicare database are the established patient office visits, which are designated 99211 through 99215. The codes are copyrighted by the American Medical Association (AMA). Of these five codes, 99212, 99213, and 99214 are the most frequently used; 99214 pays about 60% more than a 99213; and more than 220% of 99212. Clearly, incorrect or improper coding can dramatically affect the normalized revenues of a practice. For this reason alone, a coding analysis is critical.

In the last five years, there has been a steady rightward shift of the historical bell curve coding pattern, with a decrease in 99212 codes and an increase in the 99214 codes.

This shift has not gone unnoticed. The Department of Health and

Human Services (DHHS), Office of Inspector General (OIG) produced Medicare Fee for Service (FFS) error rates from 1996 to 2002. This process, known as the Comprehensive Error Rate Testing (CERT) program revealed that payers were reimbursing practices erroneously for procedures that were not documented properly and/or did not meet medical necessity tests. A focus of this study has been a select group of procedure codes that have historically had very high levels of improper payment, the least of which has been the aforementioned code 99214. Medical reviews of 4,436 lines for the period between January 1, 2004, and December 31, 2004, disclosed that 648 lines, or 14.6%, were in error. Based on the application of these results, CMS estimates that improper payments of \$234,489,004 were made to physicians for this code alone. For medical practices, this means that these codes are under greater scrutiny from payers and other outside investigative agencies.

Evaluation and management (E/M) coding in particular is dependent on a series of guidelines that require the physician to consider 1,600 unique decision points during a typical patient visit. In determining the code to be assigned, there are two major players with respect to validating the use of the E/M code, namely, documentation and medical necessity.

Documentation is simply the process of recording or writing down a detailed summary of the visit, including the chief complaint, past family

Both of these services rank in the top 10 most frequently billed physicians' services out of more than 7,000 types of services paid under the physician fee schedule.

The 99213 code presently has a fully implemented work RVU value of .67. Under this proposal, the value would rise to approximately .92 RVUs. With a conversion factor of \$37.90, this would represent an increase in the fee of nearly \$10 or 18%, to about \$62.15 from the present level of \$52.68 on the National Physician Fee Schedule.


Significantly, because of the budget neutrality provisions of the existing Part B system, the increased cost associated with the increased RVUs has to come from a reduction in the value of other services and CMS proposes "to establish a budget neutrality adjuster that would reduce all work

RVUs by an estimated 10% to meet the budget neutrality provisions." For example, CMS estimated that the proposed changes would increase reimbursement for internal medicine by 5% in 2007 while decreasing the reimbursement for radiologists by the same amount. The Federal Register notice contains the details of estimated changes for all specialties.

CMS is also proposing changes to the Practice Expense component of the RVUs to be phased in over four years through 2010, which will result in further revenue shifts.

CONCLUSION

Valuation analysts are not coding consultants. Nevertheless, given regulatory issues and the impact of coding on the future cashflow being valued, it is necessary that analysts have

some basic knowledge of the subject and conduct a basic review. Relatively simple processes can be implemented using readily available data from the Internet or vendors such as MIT Solutions, Inc. (www.mitsi.org) to incorporate a basic assessment of coding into the valuation process. This results in a valuation conclusion that reflects the risk, if any, of unusual coding patterns and may identify potential lost revenues available to a hypothetical or other owner of the practice. In the latter instance, the analyst can bring additional value to the valuation. 

Mark O. Dietrich, CPA/ABV, is with Dietrich & Wilson, PC, Framingham, MA. He can be contacted at dietrich@cpa.net. Frank Cohen is the Senior Analyst for CPA Health Partners, Clearwater, FL. He can be reached at 800-851-2672 (extension 713) or at info@cpahealth.com.

CONSIDERING FORECASTS OF THE ECONOMY'S LONG-TERM GROWTH RATE WHEN DETERMINING A FIRM'S STABLE GROWTH RATE

By Lindsey Lee, CPA/ABV, CFA, ASA

INTRODUCTION

Choosing a company's stable growth rate is a critical element when preparing a valuation using the income approach. Small changes can have a significant impact on the resulting value. As the graph on page 6 indicates, the effect gets larger as the stable growth rate increases.

The company's stable growth rate should reflect its long-term sustainable growth rather than what is projected for the short term. Factors to consider when determining a company's stable growth rate include the following:

- The firm's historical growth rate
- Management's growth expectations and goals

- The company's ability to achieve growth
- The enterprise's borrowing power
- The projected growth rate of the industry and the economy
- The economic environment

CONSIDERING THE ECONOMY'S LONG-TERM GROWTH RATE

Economists posit that no company can grow faster than the economy forever. Eventually, in a capitalistic society, a company's growth must approach and possibly drop below the economy's general growth rate.

Many appraisers rely on the overall economic growth rate to estimate a company's stable growth rate. For

example, in Ibbotson's *Cost of Capital Yearbook*, the authors use the estimated nominal growth rate of the entire economy as the stable growth rate to calculate each company's terminal value. Ibbotson makes this assumption because "even in a rapidly growing industry there will come a time when growth slows to be more in line with the overall economy."

The two elements comprising an economy's long-term growth rate are expected inflation and expected real growth. This article discusses several sources the appraiser may consider to estimate an economy's forecasted long-term growth rate.¹

SOURCES OF INFLATION AND GDP GROWTH FORECASTS

Surveys of Economic Forecasts

- *The Livingston Survey*

In each issue, *Business Valuation Update* presents the 10-year forecasts for inflation and real gross domestic product (GDP) as reported in the

¹ Although there are multiple measures of inflation, this article only discusses forecasts of the CPI. Most valuation texts, such as those by Hitchner, Damodaran and Trugman, rely on the CPI to develop forecasts of the economy's long-term growth rate. In addition, the author found the CPI to be the only measure of inflation for which each of the sources discussed below prepared long-term forecasts.

Livingston Survey. The *Livingston Survey* is the oldest continuous survey of economists' expectations. Published twice a year, in June and December, the *Livingston Survey* summarizes the forecasts of economists from industry, government, banking, and academia. In the June 2006 edition, the survey panelists' 10-year forecast was for real GDP to grow at 3.2% annually and inflation to increase at 2.5% per year. The *Livingston Survey* can be found at www.philadelphiafed.org/econ/liv/index.html.

- *Survey of Professional Forecasters*

The Philadelphia Fed also compiles the *Survey of Professional Forecasters*, which is the oldest quarterly survey of macroeconomic forecasts in the United States. In its issue dated August 14, 2006, the *Survey of Professional Forecasters* reported its members' consensus had forecast inflation over the next 10 years to be 2.5% per year. Copies of the *Survey of Professional Forecasters* can be found at www.philadelphiafed.org/econ/spf/index.html.

- *Blue Chip Economic Indicators*

Published by Aspen Publishers, Inc., a division of Wolters Kluwer nv, *Blue Chip Economic Indicators* is a monthly subscription-based publication that presents the forecasts of more than 50 of the nation's top business econ-

omists. In March and October, the *Blue Chip Economic Indicators* publishes its semi-annual long-range consensus forecast of 15 economic variables, including the CPI (for all urban consumers), real GDP, and nominal GDP. As of March 10, 2006, the Blue Chip Consensus projected inflation for the 10-year period 2006 to 2015 would increase at 3.09% per year, with real GDP projected to increase over the same period by 2.40% per year. Information on subscriptions to the *Blue Chip Economic Indicators* can be found at www.aspenpublishers.com/bluechip.asp.

Government Agencies

- *Congressional Budget Office*

Blue Chip Economic Indicators includes a comparison of its forecasts for inflation, real GDP, and five other economic variables to the 10-year forecasts assumed by the Congressional Budget Office (CBO) in its outlook for the budget and the economy, *The Budget and Economic Outlook: Fiscal Years 2007 to 2016*, the CBO projects that GDP will grow at 3.00% per year from 2006 to 2015 and that inflation, as represented by

changes in the CPI, will increase by 2.34% per year from 2006 to 2015. Copies of *The Budget and Economic Outlook* can be found at www.cbo.gov/.

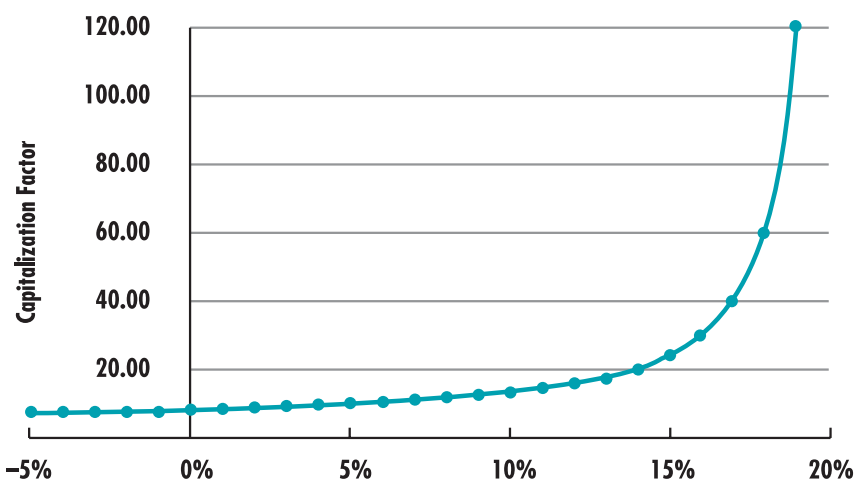
- *Office of Management and Budget*

Each year, the President submits to the Congress his budget for federal expenditures for the following fiscal year. The *Budget of the United States Government* contains the President's budget message, information about his budget proposals, and other budgetary publications. The budget is based on five-year projections of key economic variables developed by the Office of Management and Budget (OMB). The Web site at which copies of the *Budget of the United States Government* can be found is origin.www.gpoaccess.gov/usbudget/. *Blue Chip Economic Indicators* and the *Budget and Economic Outlook* both include a comparison of their forecasts to those included in the Budget. However, since the Budget's longest-term forecasts are only five years out, I have not included them in this article.

- *Social Security Administration*

Each year the Trustees of the Old Age Survivors and Disability Insurance program (OASDI or Social Security) are required by law to report on the financial status of these programs. The Trustees' report includes projections of annual revenues and expenditures based on assumptions regarding real GDP growth, inflation, and several other economic indicators that are developed by the Office of the Chief Actuary of OASDI. The Trustees' report includes three projected estimates to highlight the range of possible outcomes. These estimates are referred to as *Intermediate* (or best guess), *High Cost*, and *Low Cost* estimates. For the 2006 fiscal year, the Chief Actuary's Intermediate forecasted real GDP to grow at 2.57% per year from September 30, 2005, to September 30, 2006, and for the CPI to change over the period at an

Effect of Changes in Growth Rate on Capitalization Factor



average rate of 2.74% per year. Copies of the Trustees' report can be found at www.ssa.gov/OACT/TR/index.html.

Treasury Securities

In both the Capital Asset Pricing Model (CAPM) and the Build-Up Method, the yield on treasury bonds is often used as the proxy for the risk-free rate used to determine the cost of capital. The yield on treasury bonds is referred to as the nominal interest rate. Two elements comprise the nominal interest rate, namely, the expected real rate of interest and the expected inflation rate. The real rate of interest is the return an investor requires in order to forego current consumption for future consumption.

The yields on Treasury Inflation-Protected Securities (TIPS) are a source for determining the real rate of interest. The U.S. Government first issued TIPS in 1997. TIPS are securities whose principal is adjusted every six months for changes in the CPI. The coupon rate on TIPS is constant, but generates a different amount of interest when multiplied by the inflation-adjusted principal.

Economic theory holds that the nominal rate of interest should approach the expected overall growth rate for the economy. Therefore, the yield on Treasury Bonds should represent the expected nominal growth rate of the economy over a comparable term. For the week ending June 30, 2006, the average yield on the 20-year Treasury bond was 5.35%.

Yields on both Treasury bonds and TIPS are available from the Federal Reserve in the Federal Reserve Statistical Release H.15: *Selected Interest Rates*. This report can be found at the following Web site: www.federalreserve.gov/Releases/H15/Current/

- *Breakeven Inflation*

Comparing the yields on TIPS to the yields on Treasury bonds with similar maturities should yield the expected inflation rate over the period. The

term breakeven inflation (the BEI) rate refers to the expected rate of inflation based on the relationship between the yield on Treasury bonds and TIPS. A simple method to calculate the BEI is to subtract the yield on a TIPS from the yield of a Treasury bond with the same maturity. On June 30, 2006, the BEI rate based on yields of the 20-year TIPS and 20-year Treasury bonds was 2.69%.

Historical Rates

A number of appraisers consider historical rates of inflation and real GDP growth when estimating the economy's long-term growth rates. Ibbotson relies on the historical real GDP growth rate of 3.4% to develop a long-term estimate of nominal growth. Some analysts use the historical inflation rate of 3% when developing a long-term growth rate.

SUMMARY OF EXPECTED INFLATION RATES AND EXPECTED GROWTH RATES

The table below summarizes the findings described above:

	Forecast Horizon	Real GDP Growth	Inflation	Nominal GDP Growth
Livingston Survey	10 years	3.20%	2.50%	5.70% ⁽¹⁾
Survey of Professional Forecasters	10 years	#N/A	2.50%	#N/A
Blue Chip Economic Indicators	10 years	2.40%	3.09%	5.49% ⁽¹⁾
Office of Management and Budget	5 years	3.28%	2.68%	5.96% ⁽¹⁾
Congressional Budget Office	10 years	3.00%	2.34%	5.34% ⁽¹⁾
Social Security Administration	10 years	2.57%	2.74%	5.31% ⁽¹⁾
Treasury Securities	20 years	2.59%	2.76%	5.35% ⁽²⁾
Historical		3.40%	3.00%	6.40% ⁽¹⁾

#N/A: Not Available

(1): Nominal GDP Growth Rate calculated as Real GDP Growth Rate *plus* Inflation.

(2): Inflation calculated as Nominal Growth Rate *minus* Real GDP Growth Rate.

RELIABILITY OF SOURCES

Surveys of Economic Forecasters

Studies have found surveys of economic forecasters to perform as well as or better than economic models and other methods when forecasting inflation one to two years out. In an analysis prepared in 2005, the CBO

found its two-year forecasts and five-year forecasts were about as accurate as the *Blue Chip Economic Indicators* and the OMB. The CBO also found that forecasters collectively tended to err during periods that included a turning point in the business cycle or if there were significant shifts in productivity growth. Similar findings were reported in an analysis released in March 2006 prepared by the Congressional Research Service. The author is unaware of any studies analyzing the accuracy of 10-year forecasts presented in any of the surveys of economic forecasters or the CBO's analysis of the federal budget.

Breakeven Inflation Rate

Currently, the prospects are mixed regarding the accuracy of the BEI rate to forecast future rates of inflation. Several factors underlie this challenge.

Adjustments to TIPS for changes in the CPI incorporate a 2 1/2-month lag. For example, adjustments to TIPS effective April 1 are based on

CPI published for January. In periods in which there are significant changes in the inflation expectations, this lag could affect the pricing of TIPS.

The BEI rate has two components, namely, expected inflation and an inflation risk premium. The inflation risk premium is inherent in

nominal Treasury bonds, since Treasury bondholders expect a premium to protect them from the risk that actual inflation may deviate from real inflation. According to the Federal Reserve Bank of San Francisco (the FRBSF), the inflation risk premium causes the BEI rate to overstate inflation.

The FRBSF also found that the BEI rate understates inflation because TIPS yields include a liquidity premium. The market for TIPS is less than 10 years old and smaller than the market for nominal Treasury bonds. A study of BEI rates from 1998 to 2004 found the BEI rates had increased over the period. According to the FRBSF, the increase probably was due to artificially low rates when TIPS were first introduced. The FRBSF hypothesized the liquidity premium in TIPS had declined as the market for TIPS has grown yielding higher BEI rates. The FRBSF expects that as the market for TIPS matures, the inflation risk premium and the liquidity premium will become constant.

The Federal Reserve Bank of Kansas City (the FRBKC) concurred, noting that, if current trends continue, TIPS should become more liquid and the liquidity premium should gradually decline. As a result, the BEI rate will more closely

approximate market inflation expectations. However, the FRBKC cautions that breakeven inflation may never be a perfect measure of expected inflation because both the inflation risk premium and the liquidity premium may still vary over time. The FRBKC advises that to derive the best-estimate market expectations of future inflation, one should combine the BEI rate with other information.

ACCEPTABLE RANGES OF A STABLE GROWTH RATE

The fact that a stable growth rate is constant forever puts limits on how high it can be. Few, if any, companies can grow forever at a rate higher than the growth rate of the economy in which they operate. Industries achieving rapid growth attract additional market participants, thereby putting pressure on profit margins and growth. The result is that as a company matures, its growth slows down. In most cases, a company's stable growth rate cannot be greater than the overall growth rate of the economy. Since the riskless rate should represent an economy's expected nominal growth rate, some appraisers use the rule of thumb that the stable growth rate used should not exceed the riskless rate used in the valuation.

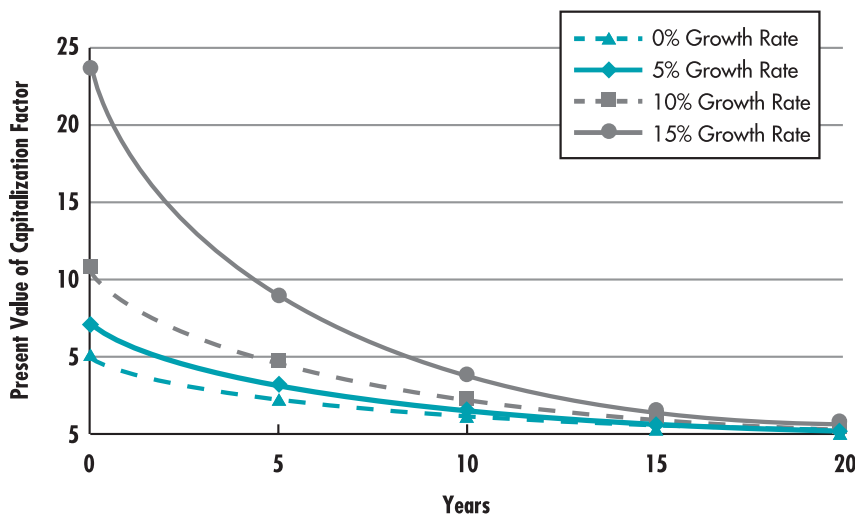
However, some companies can be expected to achieve growth rates above the economy's long-term nominal growth rate for a significant period of time. When valuing such a company, it may be more effective to use a multistage discounted cash flow model.

If using the Gordon Growth model and the subject company is expected to grow at rates above the stable growth rate for a period of time, a premium can be added to the economy's forecasted long-term growth rate to reflect above-average growth in the initial years. However, the amount of premium that can be added is limited. According to Prof. Aswath Damodaran, the sensitivity of the Gordon Growth model to the stable growth factor implies that a firm's perpetual growth rate cannot be more than 1% or 2% above the economy's forecasted long-term growth rate.

When using a multistage discounted cash flow model, the amount of time that passes before a firm is assumed to achieve stable growth will have an impact on the total present value of a firm's cash flows to the stable growth rate. As the table on this page indicates, the further out before the stable growth period is assumed to take effect, the less impact the stable growth rate will have on the present value of the capital growth factor. However, time does not affect the relative difference between the impact of two different growth rates. For example, in the graph on this page, the capitalization factor at 15% is 3.28 times greater than the 5% capitalization factor, regardless of the number of years the amount is discounted.

For most companies, the stable growth rate will be lower than the economy's expected long-term growth rate. Setting the stable growth rate to be less than or equal to the economy's nominal growth rate ensures that the company's stable growth rate will be less than the discount rate.

Effect of Time on Present Value of Capitalization Factor




Since capitalization into perpetuity is a long time into the future, some valuation professionals argue that a company's sustainable growth rate should not be greater than the rate of inflation. Others use the anticipated inflation rate because they assume no real growth in the underlying business.

In a number of cases, the stable growth rate can be negative. A negative stable growth rate implies that a firm is being liquidated slowly over time. A negative stable growth rate

may be the best choice when an industry is being phased out because of technological advances or structural changes in the economy.

CONCLUSION

The economy's expected long-term growth rate can be used to estimate a company's stable growth rate. The rate selected depends on the underlying characteristics of the subject entity, its industry, its future prospects, and the economy it operates in. There are numerous sources

for estimating an economy's expected inflation rate and expected real growth rate. Surveys of professional forecasters appear to be the most reliable. Many businesses' stable growth rates into perpetuity will fall between the forecasted rate of inflation and the economy's expected nominal growth rate. 

Lindsey Lee, CPA/ABV, CFA, ASA, is a Senior Manager in the Business Valuation and Advisory Services Group of UHY Advisors TX, LP in Houston, TX. He can be contacted at llee@uhy-us.com.

In the KNOW

Contributed by James R. Hitchner, CPA/ABV, ASA, The Financial Valuation Group, Atlanta, a member of the Financial Consulting Group

DELAWARE COURT TAX AFFECTS S CORP

The following article is taken from the August/September 2006 issue of Financial Valuation and Litigation Expert journal (www.valuationproducts.com). It was written by John Stockdale, Jr., who is with Valuation Case Digest and Valuation Information, Inc., telephone (248-366-8518). Copyright 2006 by Valuation Information Inc. Used with permission.

In *Delaware Open MRI Radiology Associates, PA v. Howard B. Kessler*, No. 275-N (Del. Chan. April 26, 2006), the Delaware Court of Chancery determined the fair value of stock in this statutory appraisal action. Kessler and the other defendants (Kessler Group) held 37.5% of Delaware Open MRI Radiology Associates, PA (Delaware MRI), which was formed to own MRI centers in Delaware and pass the MRI reading activities on to its owner-radiologist.

When Delaware MRI, an S corporation, was formed, all its shareholders practiced together in a Philadelphia radiology practice. Eventually, the defendants separated from the initial group (Broder Group) and started a competing radiology practice. As competition between the Kessler and Broder groups increased, the Broder Group, which held the remaining interest in Delaware MRI, began to divert more MRI reading

activities to them, eventually cutting out the Kessler Group all together. Contemporaneously, the Broder Group commenced a freeze-out merger to remove the Kessler Group from participation in Delaware MRI. The Broder Group obtained a valuation of Delaware MRI, which indicated a value of \$16,000 per share.

At the time of the freeze-out merger, Delaware MRI owned interests in two MRI centers located in Delaware and planned to expand throughout Delaware. Days after the merger, it signed a lease and formed an operating company for a third location. Plans for a fourth location were formed shortly thereafter, but these plans were accomplished through an entirely separate business that did not involve the Kessler Group. A fifth location was under consideration, but no material steps were taken to proceed by opening it. The three post-merger locations

were operated in a fashion substantially similar to the first two. Each location's revenue was split: 15% to radiologists-owners for services (which was increased to 17.5% shortly before the merger); 1% to management fees, which was increased to 2% shortly after the merger; between 5% and 7.5% to marketing, which was increased to 7.5% for all facilities after the merger.

The Kessler Group dissented from the freeze-out merger. Delaware MRI brought this action to establish the fair value of the dissenters' interests. The Kessler Group countersued, claiming breach of fiduciary duty, which required the Broder Group to establish the entire fairness of the transaction. The Chancery Court initially concluded that the transaction did not satisfy the entire fairness test. In reaching this decision, it noted that the Broder Group's appraisal was based entirely on the two established MRI centers and did not consider any value attributable to the three centers that would be opened shortly after the merger. Moreover, the appraiser did not consider whether the amount paid to the radiologist/owners for reading services was reasonable or whether the amount paid as management fees was reasonable. More precisely, for example, the appraiser did not determine whether amounts were the market rate, or diverted from corporate profits.