Journal of Forensic and Investigative Accounting
Volume 11: Issue 3, July–December 2019

VFR Valuation Advisory #3: A Groundwork for Fraudulent Financial Reporting?

Matthew D. Crane
James A. DiGabriele
Peter L. Lohrey
*Joseph R. Nicholson**

Introduction

A control premium is defined as an "amount or a percentage by which the pro-rata value of a controlling interest exceeds the pro rata value of a non-controlling interest in a business enterprise, to reflect the power of control."[1] All things equal, a non-controlling shareholder prefers additional rights and the seller (absent duress) would demand a premium as an incentive to sell his/her controlling interest. It is also accepted that a buyer may obtain personal advantages or additional value through economic benefits or "synergies."[2] By tradition, valuation specialists have used market-based data such as the FactSet/Mergerstat control premium study or other data to recognize a control premium based on event studies of share price prior and post announcement. The calculated premium is then applied to the subject company's total equity value or a hypothetical market capitalization value, or the "as if freely-traded" voting shares are traded in an active market.

Control premiums are usually considered a shareholder-level adjustment.[3] This is because shareholders have to agree to sell, and therefore if a premium exists, its value is realized by the shareholders only. However, there is a significant debate in regard to how to quantify the premium and the subjectivity involved in selecting a control premium. This in turn often makes it difficult for a valuation specialist to measure a premium—if one exists. In certain cases, valuation specialists will apply an average or median of an industry premium for comparable companies, without attempting to quantify the premium. This, in turn, poses problems for auditors who must test the reasonableness of the input and its measurement. Hence, the use of averages is therefore debated. To further compound this measurement problem, there is substantial debate about the use of this methodology and whether a premium should be applied at all.[4]

For public filers, impairment testing under ASC 350 currently requires a two-step process. However, for private companies, an alternative process is available, and the two-step process is simplified to a single step.[5] Under current guidance, the initial test compares the carrying value of the subject company or "reporting unit" to its fair value. If the fair value of the reporting unit is greater than the carrying value, there is no impairment.

In light of this, the definition of a reporting unit presents a key issue. The value of a reporting unit can be measured as TIC—or enterprise value (market value of common and preferred stock plus market value of debt minus cash and investments), equity value—or even asset carrying value. FASB's definition of a reporting unit does not dictate the use of TIC, enterprise value, or asset carrying value. It simply states that a "reporting unit is an operating segment or one level below an operating segment (also known as a component)."[6] Hence, the testing of what constitutes a reporting unit remains at the discretion of the financial statement preparer. Under the current proposed guidance, if the fair value of the reporting unit is less than its

[1] International Valuation Standards Council Glossary: http://www.ivsc.org/glossary
[2] Pratt (2008).
[3] See Pratt (2008). Chapter 15 discusses how premiums are applied to the equity value only.
[4] See Nath http://www.ericnath.com/articles/ViewsOnControlPremiums.pdf
[5] The authors note the FASB's guidance is still evolving and companies electing the Private Company Council Guidance presented in Accounting Standards Update 2014-02, may avoid or simplify goodwill impairment testing by amortizing goodwill over an economic life of ten (10) years. On January 26, 2017 the FASB issued Accounting Standards Update No. 2017-04, which eliminates step 2 of the test for tests after December 15, 2019.
[6] See FASB Glossary definition of Reporting Unit.

*The authors are, respectively, doctor at Sacred Heart University, professor at Montclair State University, assistant professor at Montclair State University, and associate professor at Montclair State University.

corresponding TIC, enterprise value, equity value, or asset carrying value, impairment up to the amount of goodwill is recorded.[7] Further, the fair value of goodwill must be determined, which in turn requires a revaluation of the assets acquired. Simply, this is an update of the original purchase price allocation. The new guidance removes this process largely because of the significant costs required to update the original purchase price allocation.

Although FASB does not explicitly specify the valuation measurements of TIC, enterprise value, asset carrying value, or other value, there are many reasons why the valuation specialist could use different measurements. For example, when a company's value is largely due to unrecorded appreciation of real estate assets with potential alternative uses, it would defy logic to base an impairment conclusion on TIC or equity value when asset measurement is critical. additionally, in situations where the reporting unit's equity value is negative, it would be unreasonable to test equity value, for any value at or above zero would support a no impairment conclusion. This would take place in spite of solvency or other going concern issues. Therefore, in situations where carrying value and equity is equal to or less than zero, further examination is required.[8]

Regardless of the selection of the valuation measurement used, where the reporting unit's carrying value is less than fair value, the application of a premium to TIC, enterprise value or equity value will affect the amount of an impairment charge—or whether any impairment is recognized.

Here is an example where applying a control premium would be the deciding factor in a no impairment conclusion:

	Sept. 30, 2018 ($mil)	Reporting Unit Step 1 Test
Market Capitalization – XYZ Corp.	$532.354	
Times: (1+Control Premium)	X 1.25	$665.443
Carrying Value of Reporting Unit		$599,653
Step One Conclusion		No Impairment

As one can see from this example, the application of a control premium provides a conclusion of no impairment. When management's compensation is based on earnings, the application of a control premium should be closely scrutinized. It should raise questions when the market capitalization is below the carrying value, and the premium is the sole factor of a no impairment conclusion.

In order to provide a framework for the selection of significant inputs, FASB's ASC 820 states that market inputs are preferred in the hierarchy of inputs (Level 1, 2, and 3):

> Level 1: Quoted prices in active markets for identical assets or liabilities that the reporting entity can access at the measurement date;
>
> Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and
>
> Level 3: Unobservable inputs for the asset or liability.

Given this hierarchy, some inputs are deemed more reliable than others. If an entity's market capitalization value is available, current guidance suggests that it is the preferred input.

The measurement of a reporting unit's value is based on one of three basic approaches to value: the Market, Income, and Cost (Asset) Approaches.

The Market Approach is based upon the principle of substitution. This approach develops measures based on prices for comparable interests. The two methods typically used under the Market Approach are the Guideline Public Company (GPC) method, or the Guideline Company Transaction method (GCT). Both methods use recent public market trades of the subject company's shares. As the subject company's shares are traded in an active market, this input would be given primary consideration as a Level 1 input. It is important to note that the MPAP guidance acknowledges that if a company's shares

[7] The FASB's Accounting Standard Update No. 2017-04, eliminates step 2 of ASC 350 effective for fiscal years beginning after December 15, 2019 and early adoption is allowed for testing dates after January 1, 2017.
[8] See ASC 350-35-23 discusses the perceived synergies in a Reporting Unit.

are thinly traded, the quoted price may not be representative of fair value.[9] Use of the Market Approach, depending on the method used, can measure both a controlling interest value and a minority interest value.

The Income Approach is based on the principle of anticipation, where value is determined by measuring the present value of anticipated future benefits, either within the capitalization of income or a discounted cash flow method. The specific income method proposed by the MPAP is referred to as the "With or Without" method (WWM). The WWM is a comparative valuation, which contrasts two different values: one where controlling adjustments are performed, to a second, where the valuation is measured from a minority perspective, without any controlling adjustments. The difference in value is the MPAP. The income method may not directly use market inputs, which are comparable to unobservable inputs. It may use the valuation specialists' opinions similar to a Level 3 assertion under ASC 820. These opinions are often based on observable inputs. The use of unobservable inputs is often the subject of litigation, and the Public Company Accounting Oversight Board (PCAOB) is placing greater emphasis on impairment testing.[10]

It should also be noted that the Income Approach is considered to be highly subjective by certain standard-setting bodies (PEIGG, 2008)—who suggest that a Market Approach using market multiplies provide greater reliability. In spite of ASC 820 preference for the use of market data, the use of an Income Approach allows the valuation specialist to alter certain variables to obtain a desired outcome. The Income Approach can be used to measure both a controlling interest and a minority interest value for a reporting unit.

The Cost (Asset) Approach is based on the economic principle of substitution. It estimates the replacement costs of the assets and liabilities of equivalent utility to estimate the value of the reporting entity. In other words, it measures the cost to reproduce the reporting unit's carrying value by adjusting assets and liabilities to their respective fair values. The Cost Approach assumes control over the reporting unit.

Implicit in the application of the MPAP is that a market participant who is a controlling interest buyer pays a premium to acquire the reporting unit. The assumption is that operational synergies or a lower cost of capital provides additional benefits to the buyer. The MPAP also recommends that a control premium be applied to the enterprise value or TIC, instead of the market value of the equity. In the past, the control premium was applied to the market value of equity—based on the assumption that the premium would be realized by the equity holders and not the debt holders.

Valuation specialists can avoid the issues surrounding the use of a control premium by choosing the Income or Market Approach to determine value. These two approaches allow the valuation specialist to consider controlling market participant assumptions and their market multiples. For instance, the GPC method assumes that market multiples are based on non-controlling interests. The GCT method uses multiples that are based control. There is no requirement first to estimate a hypothetical market capitalization. So, the only time this issue must be resolved is when the reporting unit's shares are traded on a public exchange. This is due to the ASC 820 requirement that the valuator must use observable inputs from active markets when possible. In other situations, the use of minority guideline public multiples or minority rates of returns are not a requirement. Therefore, the MPAP has limited applicability. It is only relevant when the valuation specialist applies an initial minority value or where an actual market capitalization exists. A valuation specialist can simply avoid this issue by using valuation methods that suggest control—without the use of a premium.

The rationale for using TIC or enterprise value instead of equity market value as a multiple lie in the fact that the use of equity market value may distort the valuation. Specifically, when a reporting unit is financed by equity, a large premium may result. Conversely, if debt is used to finance a reporting unit—there is no premium. Hence, the control premium may differ solely based on the type of capital used to finance the reporting unit on the valuation measurement date. This does not make sense, for buyers of a controlling interest should be indifferent to the target's existing capital structure. Buyers of controlling interests can adjust the target's capital structure after the transaction is completed. He or she will have factored the existing capital structure of the target into their purchase price decision. Therefore, the current amount of debt may affect the amount of the premium paid to acquire a controlling interest.

Current MPAP guidance appears to assume that control premiums are universally accepted and quantifiable. Malmendier (2016) and others state that these benefits are not always realized. Some practitioners, such as Nath (1990) question whether

[9] See MPAP page 33 line 760.
[10] See Pearson (2011).

the right to vote has any value. However, Zingales (2004) provides compelling evidence that premiums for control do exist but vary greatly by industry and by country.

Survey of Literature

To examine how the practice of determining control premiums developed, a discussion of the existing literature is helpful. Pratt (2009) provides an excellent summary, which describes perquisites of control:

1) Appointing or changing operational management;
2) Electing members of the board of directors;
3) Determining management compensation;
4) Setting operational and strategic policy for the business;
5) Acquiring, leasing, or liquidating assets business assets;
6) Selecting suppliers, vendors, and subcontractors;
7) Negotiating and consummating mergers and acquisitions;
8) Liquidating, dissolving, selling or recapitalizing the company;
9) Selling or acquiring treasury shares;
10) Registering the company's equity securities for an initial or secondary public offering;
11) Registering the company's debt securities for public offering;
12) Declaring or paying dividends;
13) Changing the articles of incorporation or bylaws;
14) Selecting joint venture and other business partners;
15) Making product and service offering decisions;
16) Making marketing and pricing decisions;
17) Entering into licensing and other agreements regarding intellectual property;
18) Blocking any or all of the above actions.

Using the above, the MPAP guidance focuses on four issues:

1) Superior revenue growth;
2) Increased operating margins;
3) Working Capital efficiencies;
4) Capital expenditure efficiencies.

These variables are both intuitive and logical. However, Damadoran (2005) states elements of control may be unique and could be based on ego or hubris. Kreitzman (2008) indicates this intrinsic element of control is somewhat distinguished from the acquisition premium paid to sell an entire business. Yet, with regard to the idea that market participants are indifferent capital structure, there is abundance in literature supporting that idea that the firm's current capital structure should have no bearing on the buyer's perspective, notably Modigliani and Miller (1958), which supports the MPAP assumption that TIC is more relevant than equity. Consequently, the MPAP's assumption that a market participant may seek to increase value by using a better discount rate rests on solid footing in the academic literature. This concept is echoed by several others including Jensen and Meckling (1976) and others.

There are some concerns that control premiums may not exist or possibly quantified. Kim and Ritter (1999) indicate the use of accounting results in valuation often results in mispricing of equity in IPOs. Given that such mispricing occurs during IPOs, complete accuracy may not be possible to estimate control premiums by the use of accounting results (i.e., revenues, net income or other).

Despite the accuracy and existence problem, the academic literature generally supports the assumption that control has economic value. Several researchers and practitioners have done significant work in this area. Pratt (2001), Damadoran (2005), and Zingales (1995) conclude that control premiums do generally exist in M&A events, as does the MPAP guidance.

One area not discussed in the MPAP guidance is the issue of agency conflict. Managers may use the corporate entity to personally enrich themselves, which is a detractor to value to investors. Jensen and Mecking (1976) discuss at great length that there is a direct relationship to firm value and the market value of the manager's expenditures on non-pecuniary (personal) spending and the costs to monitor such spending. The theory is that firm value is reduced by the manager's ability to enrich themselves personally or conversely an attempt to prevent such spending and associated monitoring costs. The

MPAP guidance appears to assume that managers have a fiduciary obligation to increase shareholder value. It would seem unlikely that personal advantage could or should be considered in the realm of fair value for financial reporting. Yet, it is reasonable to pursue the agency problem in this context.

Although there is a good deal of controversy in practitioner guidance and academic citations, The MPAP guidance will eventually become "best practices." Yet, the document does not provide empirical evidence that "market participants" pay premiums that are statistically related to the four variables cited (revenue growth, margins, working capital efficiencies, and capital expenditures). Consequently, a statistical analysis follows.

Statistical Testing and Model

The FactSet/Mergerstat/BVR Control Premium Study is an online electronic searchable database that generates empirical support for quantifying control premiums and implied minority discounts (discount for lack of control). We used this data to examine the findings contained in the MPAP guidance. The initial data set contains a population of 5,340 over a ten-year period beginning January 1, 2008, ending December 31, 2017.

The control premium data is an event study, which determines a premium paid over the preannouncement traded prices of market capitalization. Cross-sectional data on the targets is available by industry. To categorize the data by industry, the target's four-digit Standard Industry Classification (SIC) code is generalized into categories as defined by the U.S. Department of Labor. As control premiums may be unique to the specific industry, this paper analyzes data generalized SIC code. The SIC codes analyzed are presented below:

SIC Groups	Industry
01-09	Agriculture, Forestry, And Fishing
10-14	Mining
15-17	Construction
20-39	Manufacturing
40-49	Transportation, Communications, Electric, Gas, And Sanitary Services
50-51	Wholesale Trade
52-59	Retail Trade
60-67	Finance, Insurance and Real Estate
70-89	Services
91-99	Public Administration

The selection of the industries analyzed encompassed the entire data set of 5,340 transactions. One general SIC had insufficient data to analyze (Public Administration), which removed results in a data set of 5,339 transactions. A summary of the statistics for control premiums by industry is presented on Table 1:

Table 1: Control Premium by Industry (All Markets) 2008 - 2017 Summary Statistics

SIC Groups	Industry	Trans	%	μ	Std Dev.	CV
01-09	Agriculture,	31	0.6%	35.2%	55.7%	158.2%
10-14	Mining	511	9.6%	38.7%	62.3%	160.7%
15-17	Construction	82	1.5%	22.3%	48.9%	219.5%
20-39	Manufacturing	1649	30.9%	45.7%	183.1%	401.1%
40-49	Transportation, Communications, Electric, Gas, And Sanitary Services	356	6.7%	32.4%	54.3%	167.4%
50-51	Wholesale Trade	166	3.1%	41.9%	73.5%	175.6%
52-59	Retail Trade	233	4.4%	31.5%	44.7%	142.2%
60-67	Finance, Insurance and Real Estate	1194	22.4%	35.4%	66.3%	187.6%
70-89	Services	1117	20.9%	43.5%	94.4%	216.9%
	Total (Average %)	5339	100.0%	36.3%	75.9%	203.2%
	Strategic Buyers	4157	77.9%	41.9%		
	Financial and other buy	1182	22.1%	34.2%		

Legend
μ = average control premium
CV = Coefficient of Variation

The distribution of transactions by industry ranged from transactions in agriculture, forestry and fishing having thirty-one transactions or 0.6% of the sample to manufacturing having 1,649 or 30.9% of the sample. Strategic buyers are most common representing 4,157 or 77.9% of the transactions, with financial buyers represent 1,182 or 22.1% of the sample. The average control premiums for strategic and financial buyers are 41.9% and 34.2%, respectively.

Control premiums by industry ranged from 22.3% (construction) to 45.7% (manufacturing) and an overall average of 36.3%. The standard deviations for the data by industry ranged from 44.7% (retail) to 183.1% (manufacturing). The coefficient of variation (CV) by industry ranged from 142.2% (retail) to 401.1% (manufacturing). The disparity of control premiums by industry is evidence that premiums do vary by industry. The industry with the largest component of transactions (manufacturing) also has the greatest variation. Consequently, increases to sample size does not appear to reduce variation an indication control premium is highly speculative.

Based upon our review of the literature[1] and the data available, we developed five null hypotheses (H_o):

1) Sales volume has no relationship to control premiums (H_{o1}).
2) Profits expressed as earnings before interest, taxes, depreciation and amortization to sales ratio (EBITDA/Sales) has no relationship to control premiums (H_{o2}).
3) Market value of equity (MVE) as a percentage of total invested capital (TIC) has no relationship to control premiums (H_{o3}).
4) Block size acquired does not have an effect on the control premium (H_{o4}).
5) Acquisitions undertaken by strategic buyers have no effect on the control premium (H_{o5}).

A regression model is based upon the following multiple regression formula:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + u_i$$

Where:
Y_i = control premium (based upon equity)

B_o = intercept
B_1X_1 = coefficient times sales volume (based on log of sales)
B_2X_2 = coefficient times EBITDA margin
B_3X_3 = coefficient times MVE as % of TIC
B_4X_4 = coefficient times Block Acquired (block)
B_5X_5 = coefficient times a dummy log where a Strategic Buyer is considered (strategic)
μ_i = residuals

Admittedly, not all of the variables identified in the MPAP can be researched. For instance, sales growth and the discount rate used by the buyer are not known directly from the data, and therefore, cannot be researched. However, the log of sales does address the relative size of the business, and smaller companies are assumed to have greater growth in sales opportunities, while MVE to TIC is related to the target's discount rate, as it is part of the weighted average cost of capital. Companies with greater leverage intuitively may have greater risk to the equity holders and hence when a buyer applying their own perspective on the most efficient capital structure will seek to maximize value using their own capital structure. Therefore, the target's capital structure is assumed to be related to a change in the premium as buyers may seek efficiencies in the capital structure.

The percentage of the block and the type of buyer are also assumed to be related to the control premium as buyers are assumed to pay additional amounts for greater percentages of control and strategic buyers are assumed to pay a greater premium than financial buyers whom may not possess the ability to change operations and may not be able to combine the target's operations into their own operations gaining operational advantages.

Regression Outcomes

The results of the multivariable regressions using cross-sectional data for control premiums as the dependent variable and the other independent variables by for all industries and by the individual industries are presented on Table 2:

Table 2: Control Premium by Industry 2008 - 2017
Regression Results

				Log of Sales		EBITDA margin		MVE % TIC		Block %		Strategic (Dummy Variable)	
SIC Groups	Industry	R^2	F Stat	x_1	σ	x_2	σ	x_3	σ	x_4	σ	x_5	σ
01-09	Agriculture, Forestry, And Fishing	0.14	0.57	(0.03)	0.68	(0.12)	0.40	(0.31)	0.46	0.01	0.21	0.14	0.58
10-14	Mining	0.01	0.53	(0.01)	0.18	(0.00)	0.43	0.04	0.76	0.00	0.68	(0.08)	0.42
15-17	Construction	0.14	0.04	0.07	0.03	0.01	0.82	0.03	0.90	0.00	0.20	(0.01)	0.97
20-39	Manufacturing	0.02	0.00	(0.09)	0.00	(0.01)	0.05	(0.42)	0.04	0.01	0.00	0.12	0.28
40-49	Transportation, Communications, Electric, Gas, And Sanitary Services	0.03	0.05	(0.03)	0.04	0.01	0.09	0.07	0.56	0.00	0.01	0.06	0.39
50-51	Wholesale Trade	0.03	0.45	(0.02)	0.43	0.00	0.99	(0.38)	0.12	0.00	0.33	0.17	0.24
52-59	Retail Trade	0.08	0.00	(0.01)	0.55	0.03	0.64	(0.19)	0.11	0.00	0.00	(0.04)	0.46
60-67	Finance, Insurance and Real Estate	0.03	0.00	(0.04)	0.00	0.00	0.32	(0.06)	0.33	0.00	0.00	(0.04)	0.49
70-89	Services	0.01	0.01	(0.01)	0.49	0.00	0.89	0.13	0.34	0.00	0.00	0.12	0.06
	Total (Avg %)	0.01	0.00	(0.03)	0.00	(0.00)	0.96	(0.05)	0.42	0.00	0.00	0.05	0.25

Legend
R^2= R Squared based upon ordinary least squared regression using Control Premium as dependent variable and above independent variable.
σ = P-Value or Significance in use of independent variable to estimate control premiums in a regression.
x_1 = Log of Sales as a coeffient in the regression.
x_2 = EBITDA margin as a coefficient in a regression.
x_3 = Market Value of Equity % of Total Invested Capital as a coefficient in a regression equation.
x_4 = Size of block acquired as a coefficient in a regression equation.
x_5 = Type of Buyer (Synergistic = 1) as a dummy variable coefficient in a regression equation.

Although the R squared in total and by specific industry does not show a solid relationship, the regression for all industries using all independent variables in the F-statistic is significant at the ninety-nine percent level. When used in a group the model is relevant. However, when analyzing the individual industries, the model breaks down.

For the industry dataset the F-statistics were significant at the ninety-nine percent for manufacturing, (0.00) finance, insurance and real estate (0.00), retail (0.00), and services (0.01). The F-statistic for construction (0.04) is significant at the ninety-five percent level. A deeper dive into the variables by industry demonstrates how generally, the relationship between the variables on an individual basis is weak.

On an individual basis for the significance (σ) or P-values for the independent variables varied and were not as strong as the relationships jointly testing the variables for the F-statistic. The log of sales by industry is the only variable that demonstrated confidence having significance at the ninety-nine percent level for finance, insurance and real estate (0.00), and manufacturing (0.00); and at the ninety-five percent level for construction (0.03), and transportation, communications, etc. (0.04). Where the relationship is significant the coefficients for the log of sale are generally negative, with the exceptions the construction industry, which indicated greater sales levels, indicates a reduced control premium. So, in general, smaller, not larger companies receive greater control premiums based upon the log of sales variable.

The EBITDA margin as a variable only showed confidence in one industry having significance at the ninety-five percent level—manufacturing (0.05). Similar to the finding on log of sales, where significant, the coefficients for EBITDA margin as an independent variable are negative, indicating the profitable companies receive lower control premiums than less profitable companies. However, as only one industry showed a significant result, profitability is not a statistic that can be used with confidence.

The MVE to TIC variable for the industry data set the MVE to TIC variable showed confidence having significance at the ninety-five percent for manufacturing (0.04). Therefore, the findings are inconclusive for the effect the effect of leverage or lack of leverage on a control premium.

The block percent variable by country indicated significance at the ninety-nine percent for retail (0.00), finance, insurance, and real estate (0.00), manufacturing (0.00), and services (0.00). Where significant, the industry components are positive, indicating the greater percentages of ownership increase the control premium. Yet, this finding is only for four of the nine industries so it also cannot be construed to be wholly reliable, as well.

Conclusion

The variables cited in the MPAP's guidance do not have a strong statistical foundation. A blind assumption that these variables universally apply regardless of the data selected would not produce any more reliable result than just using the average or median control premium selected. Consequently, although the MPAP guidance claims to achieve accuracy, the income-based methodology it proposes still poses an audit problem as items such as sales growth, margins, and cost of capital items can be subjective to the arbitrary assumptions of valuation specialists and or management. In practice, guideline public companies as "market participants" are identified using small samples (i.e., five or more). So, to identify the appropriate variables to precisely estimate or quantify a premium for control is still anyone's guess and can easily but contested under audit or in litigation. In conclusion, the MPAP guidance provides some framework, but depending on the application, the outcome of the method will still be just as subjective and provides no better audit support. Practitioners could be well advised to avoid the control premium issue by using alternative methodologies that would imply control without the addition of a subjective premium, such as; the M&A or DCF method. Yet in cases where the reporting unit's shares are publicly traded, the potential of a premium could simply be analyzed by a comparison of other approaches, instead of blind reliance on the MPAP, which does not provide any more detailed support.

MPAP #3 creates more opportunity for earnings manipulation by management. A miscalculation of what amount to use when applying a control premium can lead to an overstatement of the premium, which in turn could lead to a greater chance for future impairment charges. These charges will then reduce earnings, which will lead to a drop in future stock prices. Managers who are compensated based on stock price performance can, therefore, manipulate earnings to their own benefit at the expense of shareholders in the years following an acquisition.

References

VFR Valuation Advisory #3—Working Group on the Measurement and Application of Market Participant Acquisition Premiums. (2017). Appraisal Foundation. Washington, D.C.

Damadoran, A., (2005). The Value of Control: Implications for Control Premia, Discounts and Voting Share Differentials. New York University.

Dyck, A. Zingales, L. (2004). Control Premiums and the Effectiveness of Corporate Governance Systems. Journal of Applied Corporate Finance.

Jensen and Meckling (1976). Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. Journal of Financial Economics.

King, A., (2007). Executives Guide to Fair Value. Wiley.

Kim, M., Ritter, J. (1999). Valuing IPOs. Journal of Financial Economics.

Krietzman, K. (2008). The Value of Control: Control Premiums, Minority Interest Discounts, and the Fair Market.

Malmendier, U. Moretti, E. and Florian, P. (2016). Winning by Losing: Evidence of the Long-Run Effects of Mergers. NBER.

Modigliani, F, and Miller, M H. (1958) The Cost of Capital, Corporation Finance, and the Theory of Investment. American Economic Review.

Nath E., (2011). Best Practices Regarding Control Premiums. Journal of Business Valuation.

Nath, E., (1990). Control Premiums and Minority Interest Discounts in Private Companies. Business Valuation Review.

Pearson, T. (2011). Potential Litigation Against Auditors for Negligence. Brooklyn Journal of Corporate, Financial and Commercial Litigation.

Pratt, S. P., and Niculita, A. V. (2008). Valuing a business: The analysis and appraisal of closely held companies. New York: McGraw-Hill.

Pratt, S., (2009). Business Valuation Discounts and Premiums, 2nd Edition. Wiley and Sons.

Pratt, S. P., and Niculita, A. V. (2008). Valuing a business: The analysis and appraisal of closely held companies. New York: McGraw-Hill.

Private Equity Industry Guidelines Group (2007). The Private Equity Industry Guidelines Group.

The Appraisal Foundations Working Group on Control Premiums, Discussion Draft (2013). The Measurement and Application of Market Participant Acquisition Premiums.

Zingales, L. (1995). What Determines the Value of Corporate Votes. The Quarterly Journal of Economics.

[1] See MPAP document with reference to profitability, capitalization, and amount of shares.