VALUATION

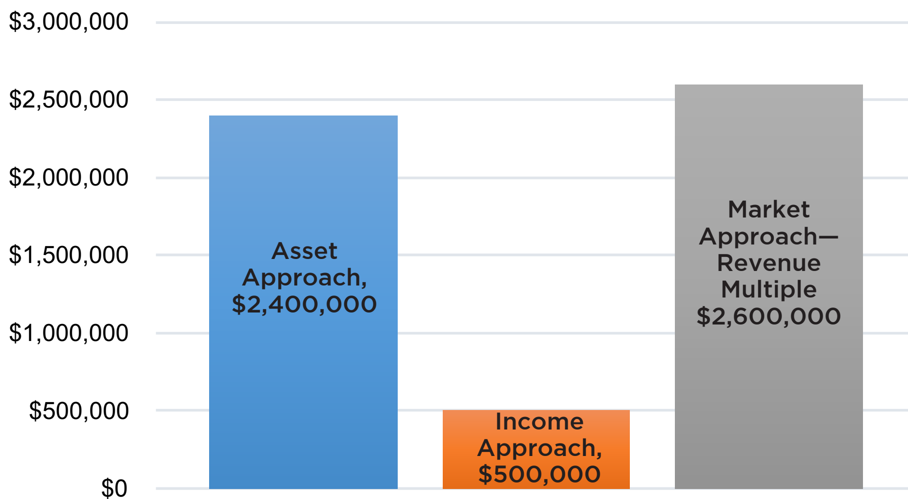
Profit Margin Adjustments: The Fine Line Between Supporting a Conclusion of Value and Withdrawing from the Engagement

By Jason R. Pierce, CPA, CMA, CFM, CVA, MAFF

Analysts often encounter financial statements that are questionable or unreliable in valuation engagements. Utilizing this information without professional skepticism may yield results that follow the adage, "garbage in, garbage out." Often, a review of the general ledger and account statements reveals the necessary information to justify normalization adjustments. However, completing business valuation assignments is more complex when the available data is limited and the deadline looms. This article discusses the circumstances under which a profit margin adjustment may be appropriate and identifies warning signs that the analyst should consider withdrawing from the engagement.

Say you were engaged to value a business and the preliminary estimates of value were as shown in Figure 1.

Figure 1: Preliminary Indications of Value



Assume the formulas and calculations of the valuation models were functioning correctly. While the above situation might make sense for a startup company, a distressed business, or in the aftermath of COVID-19, logic dictates that value estimates based on earnings should not be less than the subject company's assets minus liabilities. For our hypothetical fact pattern, assume the following attributes:

- The company is a century-old manufacturer with increasing revenues and substantial capital expenditures.
- There are many related shareholders participating in key management positions, each provided with a company-owned luxury vehicle and excess benefits.
- The company rents the manufacturing facility from a related-party real estate entity.
- Management has provided minimal supporting documents.
- No assets are considered nonoperating (except for the luxury vehicles).

In this situation, the valuation analyst has the following options:

Available Option	Discussion
Discuss with counsel	At the earliest opportunity, the valuation analyst should communicate with counsel and discuss alternatives (e.g., affidavit/testimony regarding scope limitation, range of values, calculation of value). Additional considerations include potential roadblocks, third party specialists, forensic investigation, fees, etc.
Seek additional documentation and/or perform a forensic accounting investigation	This may be in the form of discovery requests, interviews, interrogatories, depositions, etc. The goal is to gather enough information to reconcile the disparity in value estimates and support the opinion.
Withdraw from the engagement	Check your engagement letters for this option.[1] While there may be repercussions from the client and attorney, the analyst will retain his or her integrity and objectivity rather than issue an unsupported or substandard conclusion of value.
Conclude on the value based on the market approach	Given sufficient reliable transactions or guideline public companies, this would be the preferred remedy. However, this may not comply with professional standards if the approaches are not correlated and reconciled.[2] The disparate results in the hypothetical may indicate that the market data lacks comparability with the subject company or that profits were artificially depressed.
Conclude on the value based on the asset approach	This would be consistent with the "floor" or lower bound indication of value but exclude any intangible assets. Again, this may not comply with professional standards if the other approaches are not correlated and reconciled.
Make a profit margin adjustment	The profit margin adjustment may reconcile the disparity by increasing the future profits/cash flow expectations to the point where the resulting value estimates meet or exceed the tangible assets of the company. The theory and mechanics of this option are discussed below.

1 Sample wording: "The Firm reserves the right to withdraw from this engagement at our discretion." For further resources, see *NACVA's Litigation Engagement Letter Practice Guide* (Salt Lake City: NACVA, 2013); AICPA, *Engagement Letters for Litigation Services—Business Valuation and Forensic* and *Litigation Services Section Practice Aid 04-1* (New York: AICPA, 2004).

2 *See* USPAP Standards Rule 9-5: "In developing an appraisal of an interest in a business enterprise or intangible asset, an appraiser must: (a) reconcile the quality and quantity of data available and analyzed within the approaches, methods, and procedures used; and (b) reconcile the applicability and relevance of the approaches, methods and procedures used to arrive at the value conclusion(s)." Also, §.42 of the AICPA's Statements on Standards for Valuation Services, VS Section 100, June 2007 (SSVS) states: "In arriving at a conclusion of value, the valuation analyst should (a) correlate and reconcile the results obtained under the different approaches and methods used and (b) assess the reliability of the results under the different approaches and methods using the information gathered during the valuation engagement."

It may be that the subject company follows an antiquated business model that no longer works in the current environment.

Use of Assumptions in Business Valuations

Practitioners may be reluctant to make a profit margin adjustment, believing that it is not a generally accepted valuation procedure. On the contrary, assumptions and limiting conditions are common to valuation engagements.[3] Making an informed judgment call with respect to the expected earnings stream is similar to other decisions, such as estimating company-specific risk or marketability discounts. The SSVS indicates:

> A valuation analyst should possess a level of knowledge of valuation principles and theory and a level of skill in the application of such principles that will enable him or her to identify, gather, and analyze data, consider and apply appropriate valuation approaches and methods, *and use professional judgment* in developing the estimate of value (whether a single amount or a range).[4]

Valuation analysts use professional judgment concerning the subject company's expected operations, growth, strategy, risk, marketability, etc., in formulating their opinions. The analyst's judgment also extends to companies that report below-average net income, either intentionally or temporarily through an economic downturn, extraordinary charge, or restructuring. It would, therefore, be inappropriate to ignore subjectivity when estimating the ongoing benefit stream as this is the very foundation of the income approach.

The International Glossary of Business Valuation Terms (IGBVT) defines the income (income-based) approach as follows:

> A general way of determining a value indication of a business, business ownership interest, security, or intangible asset using one or more methods that convert *anticipated* economic benefits into a present single amount.[5]

3 SSVS, §.18.
4 SSVS, §.11 (emphasis added).
5 IGBVT, endorsed by five professional organizations, including the AICPA (emphasis added).

Determining the subject company's anticipated economic benefits involves consideration of many quantitative and qualitative factors, such as those in our hypothetical fact pattern and the examples listed in SSVS §.25–.30. The analyst must decide the appropriate course of action when faced with conflicting information or unreliable financial data. It may be that the subject company follows an antiquated business model that no longer works in the current environment. However, when there is evidence of deliberate financial manipulation, the benefits of further investigation may outweigh the costs of additional procedures. Other information that may be gathered and analyzed in situations with unreported revenues or excessive discretionary spending include: point of sale reports, bank and credit card statements, personal lifestyle documents, private investigators' reports, and other external resources, as available. When earnings are negative or abnormal, the analyst can sometimes replace current earnings with a normalized value, estimated by looking at the company's history or industry averages, and value the firm based on these normalized earnings.[6]

Other learned treatises expand on the forward-looking aspect of profits using the income approach. For example:

- This is one of the most basic premises of business valuation: value is forward-looking.[7]
- The capitalized economic income method is a forward-looking exercise. Using some average of actual past economic income is only appropriate if that average does, in fact, represent the expected level of sustainable economic income in the future.[8]
- The economic benefit stream is a forward-looking concept, which can be derived through a wide variety of quantitative and qualitative forecasting techniques. The techniques can generally be categorized as historically driven, management

6 Aswath Damodaran, *Investment Valuation Tools and Techniques for Determining the Value of Any Asset*, 3rd ed. (Hoboken, NJ: John Wiley & Sons, Inc., 2017), 931.
7 James R. Hitchner, *Financial Valuation Applications and Models*, 3rd ed. (Hoboken, NJ: John Wiley & Sons, Inc., 2015), 97.
8 Shannon P. Pratt, *Valuing a Business*, 5th ed. (New York: The McGraw-Hill Companies, 2008), 257.

driven, or independent variable driven in order to derive the outlook for the subject business.[9]

- Prior earnings records usually are the most reliable guide as to the future expectancy, but resort to arbitrary five-or-ten-year averages without regard to current trends or future prospects will not produce a reasonable valuation.[10]
- The relevance of historical financial statements is merely a guide for what to expect in the future. For most companies, a pure extrapolation of past results would provide a misleading prophecy as to the company's future.[11]

These sources indicate that valuation analysts should take care to determine the expected level of sustained economic income for the businesses they are valuing. This involves more than a blind reliance on the subject company's financial statements. Rather, increased diligence is required when the reliability of the underlying data is questionable. When the income approach produces a value less than the company's net assets, the analyst may revisit the underlying assumptions. The following sections illustrate how this may be done.

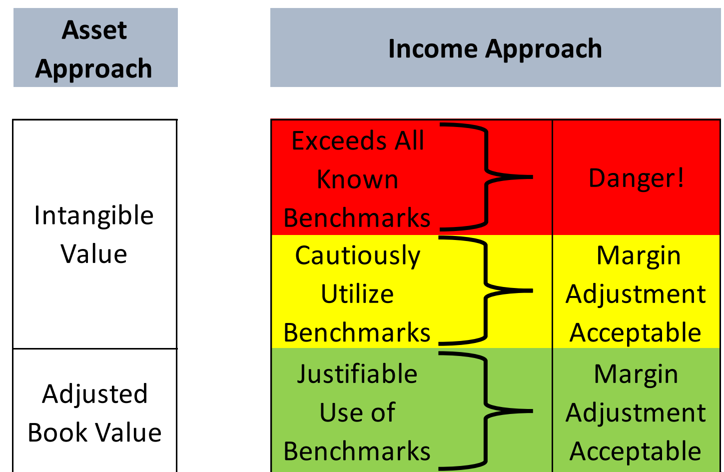
Profit Margin—Conceptual Framework

In our hypothetical scenario, the subject company's profits were arbitrarily reduced by excessive compensation, benefits, and other discretionary spending by the owners, yet the information needed to quantify the spending was insufficient. Assuming the analyst elects not to withdraw or conclude on the other valuation approaches, he or she may perform additional steps to ensure that the forward-looking profit expectations reflect normal business operations (i.e., without the discretionary expenses). This process may be accomplished through comparison to industry data and adjustment to the subject company's profits, though this is not without peril. Understanding the framework and limitations of the adjustment are fundamental before the analyst conducts the procedures.

Figure 2 presents a framework for profit margin adjustments.

9 Darrell Dorrell and Greg Gadawski, *Financial Forensics Body of Knowledge* (Hoboken, NJ: John Wiley & Sons, Inc., 2012), 294.
10 IRS Revenue Ruling 59-60, Sec. 4.02(d).
11 David Laro and Shannon Pratt, *Business Valuation and Taxes: Procedure, Law, and Perspective* (Hoboken, NJ: John Wiley & Sons, Inc., 2005), 159.

Figure 2: The Profit Margin Adjustment Spectrum



net of liabilities. Unless other methods are used to incorporate any intangible value (such as the excess earnings method), this represents the tangible net assets of the business, or the "adjusted book value." When the income approach produces a value lower than the adjusted book value of the business, the facts and circumstances may warrant the asset approach as the basis of the opinion or the analyst may use a profit margin adjustment to correlate/reconcile the results. The extent of the adjustment, however, has three zones: green, yellow, and red.

The green zone represents the upward adjustment to earnings to achieve the level of the tangible assets. The yellow zone represents the adjustment to values based on industry benchmark profit metrics. The red zone represents an adjustment to value estimates based on unsupported profit margins.

In times of economic uncertainty, the analyst may adjust the company's profit to the point at which the income approach approximates the book value, in order to reconcile the two approaches (green). When there is no logical reason why an established business with discretionary spending would lack intangible value, adjustments within the industry margins

The objective of normalizing historical financial statements is to present the data on a basis more comparable to that of other companies in the industry.

may be utilized (yellow). Any profit adjustment above the market data is illogical and not defensible (red).

While the yellow zone, in common thinking, would indicate a slowing down or cautious thought process, the triangulation of facts and circumstances may in fact point to it as the most reliable result in healthy economic circumstances. Here are some additional facts for our hypothetical example:

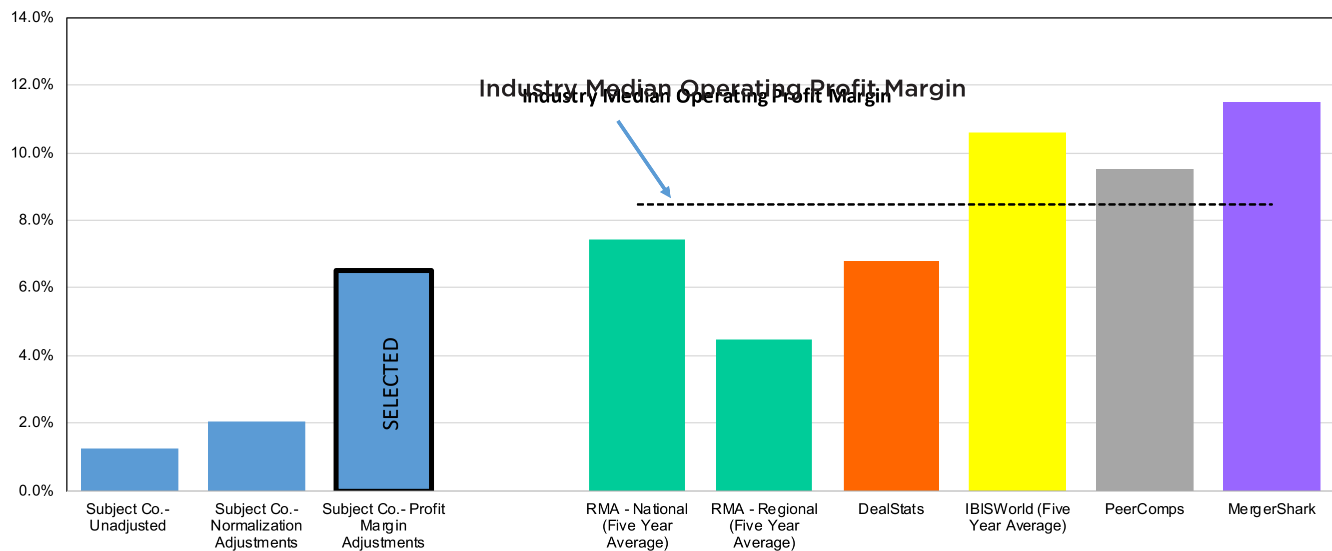
- A favorable economic, industry, or market environment
- Decades of company track record and goodwill built up in the marketplace
- Recurring revenue streams, favorable contracts, and customer relationships
- An assembled workforce and sustainable company culture
- Existence of intellectual property, trade names, trademarks, patents, brands, etc.

Profit Margin—Practical Application

The objective of normalizing historical financial statements is to present the data on a basis more comparable to that of other companies in the industry, thereby allowing the analyst to form conclusions as to the strength or weakness of the subject company relative to its peers.[12]

The subject company in our hypothetical example was compared to third-party benchmark data sources. Figure 3 illustrates this procedure.

Figure 3: Profit Margins—Subject Company to Benchmark Data



12 Hitchner, *Financial Valuation*, 63.

As shown in Figure 3, the operating margin for the subject company (blue) was below every industry benchmark profit metric, thereby providing support for an upward adjustment. The analyst should be aware of how the data is compiled and reported by the various data sources as there may be variations in the definitions of "profit" (e.g., EBITDA, EBIT, operating profit, seller's discretionary earnings, etc.), which may require adjustment to be consistent across the data sources.[13] A review of the benchmark data sources is beyond the scope of this article.

Companies with multiple divisions or diverse products complicate the profit margin adjustment process. In these situations, the primary NAICS code should be given more weight than the secondary line(s), though each should be considered in the overall determination. Information from the transaction databases may sidestep this issue and produce a blended figure based on the search criteria and business description.

Once the benchmark comparison is complete, the analyst selects the appropriate profit margin to use for expected future earnings. For our hypothetical example, we selected 6.5 percent for the operating profit margin, using a combination of supporting documents, relevance and quality of benchmark data, and conservatism. The reasons for the adjustment should be documented and discussed rather than just blindly taking the midpoint of the data (8.5 percent). Table 1 illustrates the calculation of after-tax cash flows based on three scenarios: historical/unadjusted, normalized/adjusted, and the 6.5 percent profit margin. Incorporating the after-tax cash flow figures from Table 1, the value calculations for each of the three scenarios are shown in Table 2. For simplicity, the figures are rounded.

13 For example, IBISWorld's Industry Value Added (IVA) can be converted to EBIT by adjusting for wages and depreciation while RMA's Operating Profit is equivalent to EBIT. DealStats indicates the "majority of the intermediary contributed deals" were recasted EBITDA. EBITDA is earnings before interest, taxes, depreciation, and amortization.

Table 1: Calculation of After-Tax Cash Flows

	Unadjusted	Normalization Adjustments	Profit Margin Adjustment
Subject Co. Revenue	$11,000,000	$11,000,000	$11,000,000
Operating Margin	135,000	225,000	715,000
Operating Profit Percentage	*1.2%*	*2.0%*	*6.5%*
Less: Taxes and Cash Flow Reductions	(115,000)	(140,000)	(265,000)
After-Tax Cash Flow	$20,000	$85,000	$450,000
After-Tax Cash Flow Percentage	*0.2%*	*0.8%*	*4.1%*

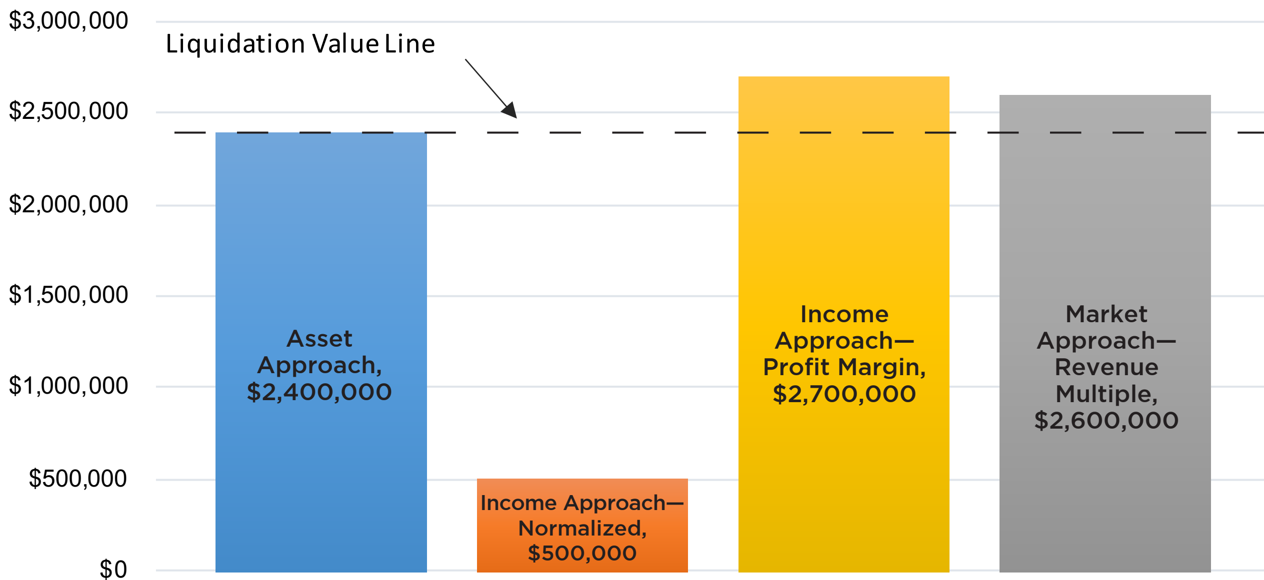
NOTE: The subject company historical figures are based on five-year averages

Table 2: Value Calculations

	Unadjusted	Normalization Adjustments	Profit Margin Adjustment
After-Tax Cash Flow, Current Year	$20,000	$85,000	$450,000
Growth Rate	3.0%	3.0%	3.0%
After-Tax Cash Flow, Next Year	$20,600	$87,550	$463,500
Capitalization Rate	17.0%	17.0%	17.0%
Equity Value (Rounded)	**$100,000**	**$500,000**	**$2,700,000**

The first two scenarios yielded values below the subject company's adjusted book value, which does not make sense given our hypothetical fact pattern. The third scenario, however, includes some intangible value and approximates the market approach. Figure 4 illustrates the results (note: the historical/unadjusted scenario is not shown).

Figure 4: Indications of Value—A Second Look



The normalized scenario implies negative goodwill whereby the collective going-concern value of the subject company is less than the sum of the individual values of the entity's tangible assets. Accordingly, the normalized scenario may be disregarded and the profit margin scenario used as the basis of the conclusion of value (or in conjunction with the market approach).

Sanity Check

The analyst may also perform a sanity check to compare the subject company's concluded value to the amount of earnings needed to achieve the level of the adjusted book value. The following chart illustrates this calculation:

Sanity Check	
Equity Value—Asset Approach	$2,400,000
Capitalization Rate	17.0%
After-Tax Cash Flows—Liquidation	**$408,000**

As shown above, the implied after-tax cash flows needed to reach the subject company's liquidation value is approximately $408,000, or $42,000 less than the amount selected for the profit margin adjustment. In this scenario, the $42,000 difference represents 9.3 percent of the total after-tax cash flows used in the calculation. An additional sanity check could be performed by quantifying the related-party expenses and comparing them to the adjustment amount for reasonableness.

Conclusion

This article outlines the conceptual framework for the profit margin adjustment and provides illustrations showing how and when to use it in a conclusion-of-value setting. Profit margin adjustments are one step above withdrawing from the engagement, so the decision to incorporate them into a valuation engagement should not be taken lightly. As the primary objective of a valuation report is to provide convincing and compelling support for the conclusions reached,[14] analysts may consider profit margin adjustments as one more tool in their arsenal rather than a panacea for all difficult situations.

Utilizing third-party data sources to estimate the subject company's future benefit stream, and ultimately the value estimates reached, is a methodical technique within the purview of the analyst's professional judgment. When faced with limited information, analysts should consider all the relevant facts and incorporate common sense and reasonableness when concluding on the value of a business. This may include profit margin adjustments to reconcile the three approaches in accordance with professional standards. This is especially relevant in situations where related party owner/operators artificially drive down the company's profits while reaping excessive benefits. VE

Jason R. Pierce, CPA, CMA, CFM, CVA, MAFF, is a partner at Edelstein & Company LLP in Boston. Prior to moving to Massachusetts, he was a partner at an Alaskan CPA firm and a valuation manager for an RSM McGladrey Network firm. Mr. Pierce specializes in financial forensics and business valuations for dispute and transaction-related engagements. He is a lead instructor for the NACVA/CTI's Master Analyst in Financial Forensics (MAFF) credentialing program and received an Instructor of Exceptional Distinction Award in 2020. Email: JRP@edelsteincpa.com.

14 IRS Business Valuation Reporting Guidelines, Section 4.1.1.

NACVA
Earn CPE Online by Reading *The Value Examiner*®!

***The Value Examiner* CPE exam can now be taken online!**

Visit **www.nacva.com/valueexaminer** and log in to access an exam. Online exams are available for *The Value Examiner* issues from 2014 to current.

You will be able to purchase, complete, and earn five hours of NACVA CPE* for each exam. You will instantly receive a certificate of completion for each exam you pass.

* This exam does not qualify for NASBA QAS CPE credit. Individuals should contact their state board or accrediting organization to determine requirements for acceptance of CPE credit.

To learn more, please visit www.nacva.com/valueexaminer, or call Member/Client Services at (800) 677-2009.