Thoughts on the Excess Earnings Method for Estimating Business Values

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For the valuation of a business enterprise, the excess earnings method (EEM) is an often misunderstood method of valuation. The EEM is essentially a more complex version of the capitalized income method (CIM). Like other "complex" valuation methods such as the discounted cash flow method (DCF method), the EEM requires significant judgment in its application. The greater complexity and informed judgment required has often been a basis for the criticism of the EEM. These criticisms are often from individuals that don't understand the many complexities of the valuation process. Past criticisms of the EEM frequently focused on the inability to develop a discount rate for intangible assets based on direct market evidence. A more thoughtful assessment of the EEM and the continued efforts of appraisers and various organizations have significantly reduced many of these concerns.

This article will provide an explanation and conceptual discussion of the EEM. In many instances where a capitalized income method is the primary basis of valuation, an EEM can provide an enhanced understanding of the drivers of value. This enhanced understanding can help appraisers reach well-reasoned, accurate valuation conclusions.

BRIEF OVERVIEW

The excess earnings method combines elements of the income approach and the cost approach. This combination of the income and cost approaches may have contributed to some of the confusion pertaining to the EEM. At a very high level, the EEM can be viewed as a two-step valuation model. These steps include:

1. Valuation of intangible assets (as a group) using a capitalized income method
2. Valuation of the business enterprise using an adjusted book value method

In the EEM, intangible assets are valued using a capitalization process similar to the CIM of the income approach. The CIM valuation formula is simply expressed as value = benefit stream/(discount rate less growth rate). The EEM process requires the development of a benefit stream for the intangible assets of the business as well as a discount rate specific to the intangibles. These estimates are the source of much of the criticism of this method.

With a value estimate for the total intangible assets of a business, the business enterprise value is estimated through a straightforward adjusted book value method of the cost approach. Value estimates for the working capital (WC), fixed assets, and intangibles (previously valued using the CIM) are summed resulting in the business enterprise value (BEV) estimate. If needed, the value of debt can be deducted to arrive at an indication of equity value.

WHEN TO USE

In assessing when to use the EEM, this can be approached from both a practical and a theoretical perspective. From a practical perspective, there are certain settings where the EEM to value a business enterprise may be frequently observed and is an expected means of valuation. These include:

- Marital dissolution
- Eminent domain – compensation for lost goodwill
- Property tax cases – determination of appropriate assessable value of property
- Economic damages – compensation for lost intangible value
- Conversion from C corporation to S corporation – determine the total intangible value to establish "built-in gain" at time of conversion

Assessing the theory of the EEM and conceptual situations when the EEM may be appropriate provide a better understanding of the usefulness of this method. If the best means of performing a business enterprise valuation is through a CIM, the EEM may be a more meaningful approach to valuation. This can occur when:

- Market approaches are challenging due to limited market data. For smaller businesses, this may occur more frequently. Public companies may not be a meaningful basis of

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expert **TIP**

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valuation as large size differences can make adjustments for risk and growth differences difficult. Transaction data for the application of the guideline transactions method may also be limited. For smaller businesses where transaction multiples are obtained from transactions of privately held companies, there is somewhat greater uncertainty regarding the accuracy of the transaction data and related pricing multiples.
- The DCF method may not be necessary if a firm is operating at a stabilized level. While the EEM could, in theory, be applied for a business that is not yet stabilized, our focus is on the application of the EEM for a stabilized business enterprise.

The EEM may be particularly helpful for asset-intensive manufacturing companies and less relevant for intangible-intensive entities (as working capital and fixed-asset values become smaller shares of the investment in a business enterprise, the value of the business and the value of the intangibles more closely approximate one another). Also, the EEM can help appraisers better understand if the business profitability is able to support the required investments in working capital and fixed assets. This can help appraisers better address issues of valuation using an assumption of going-concern or liquidation as the basis for valuation. The EEM allows for an enhanced understanding of possible economic obsolescence at a business enterprise.

PRIOR OBSERVATIONS ON THE EEM

There continues to be significant uncertainties and divergence in practice in applying the EEM. As stated in *Valuing a Business,* 5th edition:

> The capitalized excess earnings method is one of the most widely used (and sometimes misused) methods of business valuation–particularly in regard to valuations performed for marital dissolution purposes. This is because analysts often carelessly apply the mechanics of this 'formula method' without considering the sophisticated nuances of this conceptually elegant methodology.[1]

SOURCES OF TECHNICAL GUIDANCE

Financial reporting requirements pursuant to Accounting Standards Codification 805, *Business Combinations* (ASC 805) have significantly increased the valuation requirements for intangible assets. As public companies completing business acquisitions are required to report the fair values of specific intangible assets of the acquired entity, the valuation of intangible assets is of great interest to management, accountants, the Securities and Exchange Commission (SEC), and Public Company Accounting Oversight Board (PCAOB) as well as the users of financial statements. Given concerns regarding divergence in practice in the valuation of intangible assets, guidance has been developed to assist in the valuation process.

Two guides developed to assist in the valuation of intangible assets provide important guidance in the segregation of business income to various components of the business through the development of discount rates that reflect the relative risk levels of different assets. These guides include:
- The AICPA Practice Aid, *Assets Acquired in a Business Combination to Be Used in Research and Development Activities*
- The Appraisal Foundation Best Practices guide, *The Identification of Contributory Assets and Calculation of Economic Rents*

Both of these documents provide detailed discussions of the allocation of the income of a business enterprise amongst the different assets contributing to the business enterprise

Courses offered by the American Society of Appraisers also provide detailed guidance on the EEM. A course module in the ASA course, "BV 204, Advanced Topics in Business Valuation," specifically addresses the application of the EEM to value a business. The ASA course, "BV 301, Valuation of Intangible Assets," provides an in-depth discussion of the derivation of discount rates for different assets of a business enterprise. While the focus of BV 301 is intangible asset valuation rather than business valuation, a detailed understanding of the role and valuation of specific intangible assets can enhance the understanding of the EEM and the skills of a business appraiser.

APPLICATION OF THE EEM

The process for applying the EEM involves a number of basic steps applicable when using any valuation method, as well as several additional steps specific to this method. The following steps are necessary when using the EEM to value a business:
1. Segregate any nonoperating assets from the operating assets of the business enterprise
2. Determine normalized operating earnings for the operating business enterprise
3. Determine whether an income metric or cash flow metric such as debt-free net cash flow should be used (debt-free benefit streams are preferred as valuation of the equity in intangible assets would add further complications)
4. Determine values of working capital and fixed assets (fair values / fair market values are preferred over book values) *(EEM-specific procedure)*
5. Determine reasonable rates of return for WC and fixed assets *(EEM-specific procedure)*
6. Calculate required return on working capital and fixed assets by multiplying each rate of return by the fair value of each group of assets (essentially the calculation of contributory asset charges) *(EEM-specific procedure)*

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7. Subtract the required returns on working capital and fixed assets from the operating earnings of the business enterprise to develop the "excess earnings" (residual income) attributable to the intangible assets *(EEM-specific procedure)*
8. Estimate capitalization rate *(k – g)* for the residual income (frequently residual cash flow) from intangible assets *(EEM-specific procedure)*
9. Divide the excess earnings (residual income) from intangible assets by the intangible asset capitalization rate to determine intangible value *(EEM-specific procedure)*
10. Add intangible value to working capital and fixed asset values to determine the value of the operating business enterprise *(EEM-specific procedure)*
11. Add the value of non-operating assets, if any
12. Test the reasonableness of the underlying discount and capitalization rates by calculating the implied overall company weighted cost of capital.

BENEFITS OF EEM

As noted previously, the EEM is essentially a more complex version of the capitalized income method. Given this, the EEM provides a much more robust valuation model and makes many assumptions embedded in the CIM observable. (A simple CIM valuation could be criticized much like a market approach where numerous assumptions are embedded in an overly simplified model.) Some of the benefits of the EEM include:

- More directly addresses underlying assets of a business relative to the CIM
- Decomposition of the earnings of a business helps appraisers better understand the roles and contributions of the different categories of assets of a business – By developing the shares of the total business income applicable to the various categories of assets, an appraiser can gain a better understanding of the factors driving the value of the business
- Better understand appropriate capital structure for a business – A detailed assessment of the asset mix of a business results in a clearer understanding of the possible funding of the business and the correct mix of debt and equity capital in estimating a weighted average cost of capital
- Helps the appraiser understand economic obsolescence in WC and fixed assets – An improved understanding of financial performance of the enterprise can help determine whether a business should be valued on a going concern or liquidation premise

Academic studies (Howe, Lewis, Lippitt, and others) support the EEM as superior to a traditional CIM. "By separating the valuation problem into two parts – the relatively easy task of valuing the contribution to earnings from tangible assets and the relatively more difficult task of valuing the contribution to earnings from goodwill, EEM provides detailed focus on the factors that create value for a firm."[2]

BENEFITS OF EEM – ENHANCED COMPLIANCE WITH TAX GUIDANCE

IRS Revenue Ruling 59-60 is widely recognized as important guidance in the process of performing business valuations. Application of the EEM can help appraisers more completely (and directly) address elements included in RR 59-60. Specific language related to intangible value in RR 59-60 includes:

- At Section 4.01(f), Revenue Ruling 59-60 includes consideration of goodwill and intangibles as one of the primary points for consideration. Quoting directly from RR 59-60: "(f) Whether or not the enterprise has goodwill or other intangible value."
- Revenue Ruling (RR) 59-60 includes language that ties directly to the theory of the EEM: "In the final analysis, goodwill is based upon earning capacity. The presence of goodwill and its value, therefore, rests upon the excess of net earnings over and above a fair return on the net tangible assets."
- Section 4.02 (f) provides: "In some instances it may not be possible to make a separate appraisal of the tangible and intangible assets of the business." While noting it is not always possible, this language suggests that in many instances intangible assets (as a group) can be valued.

IRC 409A regulations include language which may suggest a clearer focus of the value of intangible assets. Quoting from IRC 409A ". . . the fair market value of the stock as of a valuation date means a value determined by the reasonable application of a reasonable valuation method."

> Factors to be considered under a reasonable valuation method include, as applicable, the value of *tangible* and *intangible* assets of the corporation, the present value of anticipated future cash-flows of the corporation, the market value of stock or equity interests in similar corporations and other entities engaged in trades or businesses substantially similar to those engaged in by the corporation the stock of which is to be valued, the value of which can be readily determined through nondiscretionary, objective means (such as through trading prices on an established securities market or an amount paid in an arm's length private transaction), recent arm's length transactions involving the sale or transfer of such stock or equity interests, and other relevant factors such as control premiums or discounts for lack of marketability and whether the valuation method is used for other purposes that have a material economic effect on the service recipient, its stockholders, or its creditors. [emphasis added]

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KEY AREAS OF CONCERN

Use of the EEM is more complex than a traditional capitalized income method. A number of the cited challenges to the EEM and brief observations for each include:

- Added complexity relative to CIM – The process for applying the EEM was presented previously. Several of the steps included in the valuation process are required for any business valuation. For steps specific to the EEM, training and more frequent application of the EEM will reduce discomfort regarding the perceived complexity of the method and the valuation estimates required to apply the EEM.
- Valuation of fixed assets may be time consuming and complex – To determine the residual income available to intangible assets, a value estimate for fixed assets is required (the valuation of current assets is also required although this is generally accepted as readily accomplished). This value estimate would reflect the value of the fixed assets on the premise of continued use as a part of a going concern. Whether a detailed appraisal of fixed assets is required or more simplified procedures can be applied (use of net book value as a possible practical expedient) will be a fact-specific determination.[3]
- Judgment required to estimate returns for WC and fixed assets – There is significant judgment involved in determining specific discount rates for WC, fixed assets, and intangible assets to apply the EEM. The CIM process typically embeds these assumptions without specific consideration in an overall discount rate for the business enterprise. For smaller, asset-intensive businesses, the mix of debt and equity for a business are often a function of the mix of assets of a business and their value as possible collateral to a creditor.
- Absence of market evidence on returns required for intangibles – Return requirements for the intangible assets of business enterprises are not readily available. Interestingly, when developing a discount rate for the application of the CIM, we are involved in an estimate where limited market evidence is available (by definition, the CIM is an income approach and not a market approach). The relative values of the different asset classes (WC, FA, and intangibles) and the related return requirements can be weighted together and compared to a discount rate derived for the application of the CIM. This process should help justify both the estimates used in the EEM as well as those of the CIM.[4]
- Use of one rate of return for net tangible assets (WC and fixed assets) or separate rates of return for WC and fixed assets – An EEM can use a single rate of return for working capital and fixed asset return requirements or separate estimates. As the risks and availability of financing for current assets and fixed assets would vary, specific estimates for each of these asset classes would seem appropriate.
- Lack of acceptance by many appraisers – From my personal observation, the EEM is infrequently employed in the valuation of business enterprises. This limited use may contribute to its general lack of acceptance by many appraisers. While DCF and market approaches are frequently preferable (especially for larger business enterprises or those with varying rates of future cash flow growth), certain valuations may benefit from the added robustness of the EEM. These situations would frequently involve more asset-intensive, small businesses where intangible asset values are relatively modest.

CONCLUSION

This article has provided a conceptual discussion of the excess earnings method of valuation. The general method of the EEM has been presented. Future article(s) can help interested readers understand specific elements of the application of the EEM such as

the determination of discount rates for different types of assets. While beyond the intended scope of this article, the EEM and the traditional CIM will produce identical values for a business if the assumptions of each model are fully consistent in their derivation and application. Numerous justifications for the use of the EEM rather than a traditional CIM have been provided. The EEM may not be the appropriate method for many valuation assignments. Despite this, elements of the EEM process enhance our understanding of the relationship of the tangible and intangible assets of a business enterprise. Appraisers should consider the EEM process for the insights it provides in understanding the sources of corporate value. ꙮ

1 Shannon P. Pratt and Alina V. Niculita, *Valuing a Business,* 5th edition, McGraw Hill, 2008, p. 346.

2 Harry Howe, Eric E. Lewis, and Jeffrey W. Lippitt, "Estimating Capitalization Rates for the Excess Earnings Method Using Publicly Traded Comparables," *Journal of Business Valuation and Economic Loss Analysis, 2007,* vol. 2: iss. 1, pp. 1-10.

3 While this requirement can be viewed as a significant complexity of the EEM, it should be noted that valuations should conceptually reflect economic depreciation rather than tax or book depreciation of fixed assets. In situations where fixed asset values differ markedly from reported fixed asset values, a valuation of fixed assets in order to determine economic depreciation would theoretically be appropriate. From my personal observation, application of these additional procedures is rare.

4 Gary Schurman, "Schurman FLPERP Model – Giving a Perpetuity a Finite Life," July 2011, *http://www.appliedbusinesseconomics.com/files%5Cgvsperp01.pdf.*

5 As intangible assets become a greater source of the value of business enterprises, the overall return of businesses is increasing driven by intangibles. Given this, the need to apply the EEM would lessen when businesses are driven primarily by their investment in intangibles.