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Is the Justification of Purchase Test Always Justified?

by Gary S. Parker, CBA; George B. Hawkins, ASA, CFA; and Michael A. Paschall, ASA, CFA; all of Banister Financial, Inc., in Charlotte, North Carolina.

Some business valuation experts strongly believe that all business appraisals should include a justification of purchase test, which is a type of "sanity check" used to test the reasonableness of the value determined in the report. While the justification of purchase test, in some cases, can help provide direction to the appraiser, applying it systematically, without carefully considering the circumstances of each specific business valuation, can lead to erroneous, and even dangerously skewed, conclusions. This article will explain the justification of purchase test, highlight an example of its application, and then discuss some of the pitfalls a business appraiser must consider before applying the test. A "sanity check" is not always called for in a business valuation, and a value's failure to pass a reasonableness test does not automatically mean the value is unreasonable.

The Test Explained

For a typical going concern company that is estimated to have significant goodwill value (i.e., a value above the value of its tangible assets), most business appraisers determine the company's value using methods under the income and/or market valuation approaches. Once the value has been derived, the business appraiser might apply the justification of purchase test, or "sanity check," to examine the reasonableness of the value.

Essentially, the justification of purchase test helps determine whether or not a buyer of the business could (1) afford to buy the business at the value indicated, (2) amortize any acquisition financing, and (3) still earn a reasonable rate of return considering the risk of the investment. The owner's return is calculated after assuming a market level of compensation is paid to the executive of the business (i.e., either to the owner if he/she manages the firm or to someone else). Since the justification of purchase test assumes the entire business is being purchased, it is important to use the control value of the company when applying the test.

The way in which a justification of purchase test is employed varies within the valuation field. Under one variation used,[1] the application of the test requires that the appraiser obtain or develop the following information:

Projections of the Company's Normalized Financial Performance. The appraiser develops a five- to seven-year forecast of the company's normalized free cash flow (i.e., the funds leftover after paying down acquisition debt that is available to provide a return to the buyer of the business). This free cash flow is determined after taxes and existing debt amortization, and considers required capital expenditures and any increases in working capital that may be required to support the company's growth.

A Value Indication at the Control Level. The control value is used since the justification of purchase test presumes that the entire business is being purchased.

Typical Business Financing Terms and Rates. Some appraisers apply an asset-based lending approach assuming banks will lend a certain percentage of the company's assets (e.g., 80 percent on current receivables, 50 percent on inventory, etc.) in financing the purchase price. Others assume that banks will lend a certain percentage of the purchase price, up to 60 to 80 percent. Discussions with local bankers can help the appraiser determine the terms as well as interest rates charged. The rate charged by a bank to finance an acquisition depends on many factors such as the credit risk of the company, the associated collateral, and the capacity of the company to repay. It is not unusual to find banks charging as much as 2 to 4 percent over the prime lending rate for asset-based acquisition loans, although the pricing can be lower or higher based on the unique circumstances.

The Test Applied

The following example highlights how the justification of purchase test might be applied as part of a business valuation. This example assumes the following:

- The appraiser has gathered and/or developed the required information discussed above.
- The control value of the business determined using the income and market approaches is $5,000,000.

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Table 1 Application of Justification of Purchase Test

Control Value/Purchase Price	$5,000,000		Principal Per Year	$700,000	
Loan to Purchase Price @ 70%	$3,500,000		Buyer Cash	$1,500,000	

	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Pre-Tax Profit	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
Less: Interest on Acq. Debt*	($315,000)	($245,000)	($175,000)	($105,000)	($35,000)
Equals: Adjusted Pre-Tax Profit	$1,185,000	$1,255,000	$1,325,000	$1,395,000	$1,465,000
Less: Taxes @ 40%	($474,000)	($502,000)	($530,000)	($558,000)	($586,000)
Equals: Adjusted Net Profit	$711,000	$753,000	$795,000	$837,000	$879,000
Plus: Depreciation	$100,000	$100,000	$100,000	$100,000	$100,000
Equals: Net Cash Flow	$811,000	$853,000	$895,000	$937,000	$979,000
Less: Capital Expenditures	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)
Less: Principal on Debt	($700,000)	($700,000)	($700,000)	($700,000)	($700,000)
Equals: Net Cash Flow to Owner	$11,000	$53,000	$95,000	$137,000	$179,000

*Based on average outstanding principal during the year at an interest rate of 10% per annum.

- The sale is a stock sale, meaning all assets and liabilities transfer to the buyer. Therefore, the purchase price is $5,000,000 since the seller retains no assets.
- The bank will finance 70 percent of the purchase price in a loan, interest is charged at 10 percent per annum, and the loan is repaid in equal annual installments of principal, plus accrued interest, over a five-year period. No seller financing is provided.
- The company's financial results are stable, capital expenditures are forecasted to equal depreciation over the next five years, and no increase in working capital will be required.

As seen in Table 1, based on the aforementioned assumptions, it appears the company would be able to amortize the acquisition debt over the five-year period. The buyer's return on investment would be relatively low over the first five years, but once the debt was paid off, annual cash flow would grow considerably. As discussed earlier, the company's normalized pre-tax profit has already considered a market-rate owner/manager salary. Based on the above justification of purchase test, it appears that the $5,000,000 value determined by the appraiser is "reasonable." Under the theory of the test, this is said to be the case because the "company paid for itself" out of its own cash flow in five years, with excess cash flow leftover.

Advantages of the Test

Applying the justification of purchase test offers several benefits to the business appraiser, including:[2]

- **Reality Check.** The test offers the appraiser a relatively simple method to check the reasonableness of the value determined through the income and market approaches.
- **Financing Ability.** In addition to testing the value, the method determines the company's ability to repay its acquisition financing.
- **Determination of Creditworthiness.** The appraiser can calculate interest and debt coverage ratios, which might be used by the buyer in seeking bank financing.
- **Return on Investment Assessment.** In addition to determining the company's ability to finance a purchase, the test can help determine the potential investment return to a buyer.
- **Sensitivity Analysis.** The test can be easily manipulated for sensitivity analysis purposes. For example, if earnings fall by 10 percent in the next few years, rather than staying stable as forecasted, would the company's cash flow still be adequate to pay off the acquisition debt?

Potential Problems

Appraisers must be careful in blindly applying the justification of purchase test to all scenarios. The business appraiser could easily draw the wrong conclusions from results of the test. Some of the potential issues that might arise include the following:

Market Forces. Market forces may drive the value of certain types of businesses above or below the value that might seem reasonable based on a justification of purchase test. In recent years, many highly fragmented industries (e.g., auto dealers, funeral homes, video retailing, and waste hauling) have been consolidating.[3] In these industries, consolidators are typically large publicly traded companies that

seek to acquire many smaller privately held businesses operating in the same industry. Synergy might be realized through such means as removing owner perquisites, eliminating duplicate administrative and management functions, taking advantage of potential volume purchasing discounts, and obtaining access to new markets and products. In a rapidly consolidating industry, fair market value may tend to converge with investment value (the value from the perspective of the consolidator expecting to realize synergy). This happens when there are a number of synergistic buyers bidding for companies, and the non-synergistic buyer has no choice except to pay the synergistic-level price. Put another way, why would a rational business owner sell to a non-synergistic buyer at a lower price when there are a number of synergistic buyers beating down the door and offering more money?

In consolidating industries, it is not uncommon for the value determined under the market approach to be much higher than the value determined under the income approach. In these situations, using the commonly applied justification of purchase test may lead the appraiser to draw the wrong conclusions. By presuming a "common" type of financing arrangement, which might assume bank debt over five to seven years, and normalizing the company's future cash flow, it might appear that the company would be unable to repay the acquisition debt based on the value indicated. However, the consolidator might be able to "afford" the business at the value indicated, due to the anticipated synergies realized. Furthermore, the consolidator might have access to cheaper sources of financing than the hypothetical "willing buyer" commonly used when applying the justification of purchase test.

Similarly, a company's failure to have a "sane" value based on its cash flow in a reasonableness test may be entirely unrelated to what buyers and sellers may believe it to be worth. Buyers and sellers often swing to the irrational in market manias, due to the hype over the desire to want to be in a particular industry, and for numerous other reasons. As an analogy, one's house may be in a desirable location of town and worth $1,000,000 because investment bankers moving to town have to live in the "right neighborhood." Based on the house's potential rental income, it may not be able to repay a mortgage loan, much less have any money leftover for the buyer/investor. Therefore, using a reasonableness test might lead to the false conclusion that the $1,000,000 amount vastly overstates the market value, when in reality the "market decides the market value."

Presumption of Typical Financing Terms. Application of the justification of purchase test often involves determining the financing arrangements that a "hypothetical" buyer might obtain based on the creditworthiness of the company being valued. However, this presumes that all potential buyers would obtain the same financing package. There might be many circumstances where a potential buyer of the company could obtain acquisition financing at more favorable (or perhaps less favorable) terms than the assumed typical buyer. For example, a company that is very sound financially may be able to use its stronger creditworthiness to obtain much better financing terms than the hypothetical buyer. In this situation, application of the justification of purchase test using "typical" financing terms might lead the appraiser to incorrectly conclude that the value was too high. However, there might be many buyers who could purchase the subject company with less or more favorable financing terms, and in this case, the business appraiser should either modify the justification of purchase test to reflect these terms or use other types of reasonableness tests.

Very Fast Growing Companies. The justification of purchase test as traditionally applied might not accurately reflect the value of a rapidly growing company that is temporarily experiencing negative cash flow to support its growth. In considering the case of many Internet-related companies, some may argue that these companies are greatly overvalued (and perhaps rightly so). But, investors may simply be discounting their expectations of these companies' future cash flows. If one applied the justification of purchase test using traditional means of financing (i.e., bank debt), the appraiser might believe the original value estimate is much too high. However, in this situation, venture capital financing might be a more appropriate source of financing, and repayment might come from the proceeds the venture capitalists expect to receive once the company has its initial public offering, rather than from annual loan repayments. Therefore, in this type of situation, the justification of purchase test as commonly applied would be totally irrelevant.

Companies with Valuable Intangible Assets but No Cash Flow. A company may have intangible assets of real value in the marketplace even though it has no earnings or cash flow. Examples of such assets might be a patent that has not yet been exploited, trademarks, and a highly skilled workforce (e.g., a biotechnology firm with the top researchers in a specific field). Under a blind application of the justification of purchase test, such a company might incorrectly be said to have little or no value.

Minority Interest Valuations. Business valuations often involve estimating the value of minority interests for gift tax purposes. Suppose an appraiser is valuing one percent of the shares in a medium-sized company where it would be appropriate to use the guideline public company method as part of the market approach. In this situation, applying the justification of purchase test would require that the appraiser also calculate the company's control value purely in order to apply the justification of purchase test. If the value had been determined using the guideline public company method, which would generate a minority, marketable value, the appraiser would then need to include a section in the report reviewing market control premiums and then determine the appropriate control premium to use

for the subject company (note that it may not always be appropriate to apply a control premium to arrive at a control value). This control value would then be used in applying the justification of purchase test to determine whether the value estimate is reasonable. However, if the assignment is to value a one percent minority interest, does it really make sense to go through this control premium analysis and the justification of purchase test simply in order to determine if the value is reasonable? Would not the multiples suggested by the guideline public company method under the market approach already indicate that the value is reasonable, prior to adjustment for the additional lack of marketability inherent in the non-traded interest? Is not the appraiser introducing another level of uncertainty into the valuation by performing a control value analysis simply in order to apply the justification of purchase test? Furthermore, the holder of the small minority interest would not have the prerogatives of control necessary to force the company to use its cash flow resources to repay the presumed acquisition debt.

In this type of situation, application of the income and market approaches within the valuation itself should suffice as a reasonableness test. That is, a sound appraisal, which correctly applies the appropriate methods under the various approaches, should produce a reasonable value. Since the appraiser is relying on real world data (e.g., public company multiples, comparable sales data, historical Ibbotson rate of return data, etc.) when determining the value, the methods themselves should imply reasonableness. Also, consider the alternative implications. If the minority shareholder cannot force the company to use its resources or pay dividends to give the buyer funds to repay the purchase price, and the company pays out nothing, under the justification of purchase test analysis the shares would be worthless and imply that only a $0 value is reasonable. While the minority shares may not be worth a great deal, it may be unreasonable to say they have no value.

Conclusion

The justification of purchase test can be a useful method to determine the reasonableness of an appraiser's value in some cases. It is relatively easy to apply, and it provides a simple "sanity check" on the value estimate. Some closely held companies are perfect candidates for a justification of purchase test. However, business appraisers must be very careful before relying on the justification of purchase test in every situation or doing so blindly. It may not be appropriate to apply for many reasons.

Furthermore, the results of the justification of purchase test should not immediately invalidate the appraiser's value estimate since every valuation is unique. There might be very valid reasons why the value determined in the appraisal is realistically much higher or lower than what is found to be "reasonable" by the justification of purchase test. As all good business appraisers know, there is no one formula that can be applied to every business valuation, and the same is true with the justification of purchase test. The term "sanity check" implies that the result derived under the "check" is sane, however, in certain instances it may be the sanity check itself which generates a conclusion that makes no sense whatsoever.

Although the justification of purchase test is a helpful and handy tool, and it forces the business appraiser to rethink whether the values by the various methods are realistic, business appraisers should proceed with caution and carefully think through its application before making it a standard part of every valuation report. ◆

END NOTES

[1] Rand M. Curtis, FIBA, MCBA, ASA, "The Justification of Purchase Test: An Essential Appraisal Tool," *Business Appraisal Practice* (Fall 1999). *Business Appraisal Practice* is a publication of the Institute of Business Appraisers.

[2] *Ibid*.

[3] For more detail on industry consolidation, please see "What Does Industry Consolidation Mean for Your Company's Value?" co-authored by George B. Hawkins, ASA, CFA, and Gary R. Gerlach, ASA, ABV/CPA, in the February 2000 issue of *CCH Business Valuation Alert*.