

Working Capital Considerations for Business Valuations

INTRODUCTION

The application of working capital concepts weaves its way throughout many aspects of the business valuation process. In practice, working capital concepts historically have not garnered the same amount of attention as many of the other fundamental elements of business valuations. Working capital considerations can have just as large of an impact on a business valuation conclusion as “big name” concepts such as determining discount rates, applying valuation adjustments (e.g., discounts/premiums), and selection of the appropriate business valuation approaches and methodologies.

Working capital issues primarily arise in two ways: the working capital adjustment to ongoing cash flows or as an adjustment to the conclusion of value for excess or deficient working capital. The concepts related to working capital can potentially have an impact on the income, asset, and market approaches of business valuation.

Within the income approach, working capital adjustments are a common, acceptable component utilized when determining the cash flows for a subject interest being valued. Within the market approach and income approach, it can be relevant with respect to the add-back or subtraction of excess or deficient working capital at the conclusion of the engagement. Although it has such importance, in the authors’ experience it is commonly misapplied, if not completely overlooked. This article will primarily focus on the identification and application of working capital concepts with respect to the determination of cash flows utilized in the business valuations of closely held companies.

WORKING CAPITAL DEFINED AND ILLUSTRATED

Working capital is defined as “the

amount by which current assets exceed current liabilities.”¹ *Current assets* are defined as “cash or an asset that will be turned into cash or consumed within one year or the normal operating cycle, whichever is longer.”² *Current liabilities* are defined as “an obligation meeting the following requirements: the obligation is due within one year or one normal operating cycle, whichever is longer, and the obligation will be satisfied by something classified as current (either a current asset or the incurrence of another current liability).”³ Typically, current assets include cash, pre-paid assets, accounts receivable, and inventory. Current liabilities frequently include a line of credit, accounts payables, accrued liabilities, and current portions of long-term debt. In a perfect world, all of our subject companies would provide generally accepted accounting principle (GAAP)-based audited financial statements prepared on an accrual basis. However, in practice this is frequently not the case. Therefore, some initial work may need to be done on the subject interest balance sheets to determine if financial statement adjustments are necessary for the valuation analyst to arrive at a more credible working capital balance (adjusted current assets minus adjusted current liabilities). This may include interviewing management or the subject interest’s accountant and gathering/requesting additional financial data, documents, and information (the “materials”). For example, an entity that uses the cash basis of accounting⁴ method would need to consider the business’s accounts receivables and accounts payables.

From there it is common to analyze the business’s various financial metrics and ratios. Some of the common ratios associated with working capital are the current ratio, quick ratio, and sales-to-working-capital ratio. Risk Management Associates



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(RMA) offers the following definition and description of each:⁵

Current ratio: Total current assets divided by total current liabilities

This ratio is a rough indication of a firm’s ability to service its current obligations. Generally, the higher the current ratio the greater the “cushion” between current obligations and a firm’s ability to pay them. While a stronger ratio shows that the numbers for current assets exceed those for current liabilities, the composition and quality of current assets are critical factors in the analysis of a firm’s liquidity.

Quick ratio: Cash and equivalents plus trade receivables divided by current liabilities

Also known as the “acid test” ratio, this is a stricter, more conservative measure of liquidity than the current ratio. The ratio reflects the degree to which a company’s

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current liabilities are covered by its most liquid current assets, the kind of assets that can be converted quickly to cash and at amounts close to book value. Inventory and other less liquid current assets are removed from the calculation. Generally, if the ratio produces a value that's less than 1 to 1, it implies a "dependency" on inventory or other "less" current assets to liquidate short-term debt.

Sales to working capital ratio: Net sales divided by net working capital

Because it reflects the ability to finance current operations, working capital is a measure of the margin of protection for current creditors. When you relate the level of sales resulting from operations to the underlying working capital, you can measure how efficiently working capital is being used.

Each of the above ratios indicates in various ways the ability of the subject company/business to pay current liabilities with current assets. Now that the groundwork is established, the next step is to look at the application of working capital concepts in the valuation of closely held businesses.

CAPITALIZATION OF BENEFITS METHOD

Under the capitalization of benefits method within the income approach, the valuation analyst is charged with determining the cash flows available to a stakeholder⁶ and then capitalizing that amount to convert it to value. The basic equity net cash flows formula is as follows:⁷

	Normalized net income
+	Normalized noncash charges
=	Gross cash flows
-	Anticipated capital expenditures
+ or -	Working capital necessary to support growth (or generated due to negative growth)
+ or -	Debt borrowings or repayments
-	Preferred stock dividends
=	Net cash flows to common equity

As can be seen from the preceding formula of equity net cash flows, increases or decreases in net working capital need to be factored into the amount that is available to an equity stakeholder. In general, for a company to generate increased sales into the future, it will also need support from its working capital. The question then becomes: How is the change in working capital determined and what are some factors that need to be considered? A starting place is to look at financial materials of similar companies/businesses.

WORKING CAPITAL DATA SOURCES

When looking for comparable financial materials, there are many commonly acceptable sources a valuation analyst can utilize. Brief descriptions of several follow:

Risk Management Association Annual Statement Studies⁸

RMA is a not-for-profit, member-driven professional association serving the financial services industry. RMA's stated purpose is to advance the use of sound risk management principles in the financial services industry. RMA has approximately 2,500 institutional members from which they are able to obtain data. These include banks of all sizes as well as nonbank financial institutions.

The RMA Annual Statement Studies are a summary of financial ratios, common-sized balance sheets, and income statements sorted by industry. Within a particular industry, data are further segregated by the size of assets or sales of the businesses. Data are provided by year. The finan-

cial data used are derived directly from member institutions such as private banks, trust companies, investment banks, finance companies, economic development corporations, leasing companies, governmental agencies, and professional firms that provide services related to risk management. The 2016–2017 RMA Annual Study includes over 257,000 statements of borrowers and prospects. Sources of this data can be income tax returns, audited, compiled, or reviewed financials.

A potential weakness commonly sighted with the RMA data is that the information provided is derived primarily from businesses with interest-bearing debt that are looking to refinance. Strengths of this data source include the volume of materials available, ease of use, and common utilization within the valuation community.

First Research⁹

First Research provides industry profiles covering over 1,000 industry segments. Materials are updated monthly; industry profiles contain critical analyses, statistics, and forecasts. Within First Research's Industry Profiles there are business benchmark materials, including common-size income statements and balance sheets, and financial ratios. The materials are sorted by Standard Industrial Classification codes (SIC code)¹⁰ or North American Industrial Classification System (NAICS) codes¹¹ and organized into revenue categories. Large businesses/companies are those with revenue over \$50 million, medium between \$5 and \$50 million, and small under \$5 million.

The underlying data in the First Research Industry Profiles are provided by MicroBilt Corporation. MicroBilt Corporation is a credit data and risk management company that collects data from 32 different data sources representing over 4.5 million privately held businesses in over 900 industries.

A strength of the First Research materials are the vast number of com-

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panies and volume of industries represented in the data. A weakness of its materials is the lack of underlying supporting data that would enable a user to convert the information from debt-included to a debt-free basis, a concept discussed in further detail later in this article.

ValuSource¹²

The ValuSource product IRS Corporate Ratios makes available financial data, which is summarized from actual income tax returns and sorted by industry code. The underlying data come from the IRS Corporate Ratios database and contain 10 years of data from the Internal Revenue Service's *Corporation Source Book of Statistics of Income*. IRS Corporate Ratios uses the data to determine financial statement percentages and various ratios. The materials are grouped into industries using the NAICS. IRS Corporate Ratios allows you to view and print IRS data, export IRS data to spreadsheet software, or download into ValuSource applications. Data can be presented in multiple ways, controlled by two criteria: a single year versus multiple years, and including or excluding companies that did not report net income.

A weakness of the ValuSource materials is the time lag between the period the information relates to and when the information becomes available to the public. An additional limitation is there are less industries available than with other publications. A strength is the materials are available for up to 10 years of historical financial data/information. This is useful for valuation analysts preparing a business valuation as of a specific historical date. ValuSource also allows the valuation analyst to sort the data to only include companies/businesses with positive net income. A final strength is the ValuSource data can be easily exported to Microsoft Excel.

Specific Guideline Companies

If specific comparable publicly traded companies have been identified, their ratios and statistics may be applied to

the subject business/company being valued. These ratios are easily obtained through company filings or through the EDGAR database.¹³ The operating section of the cash flows statement provides valuable materials about the changes in the current assets and current liabilities from year to year. This information can then potentially be applied to the subject business/company being valued.

The strengths and weaknesses of using specific public company data are the same strengths and weaknesses often associated with the guideline public company method¹⁴ for valuing a business under the market approach. Public companies provide "real-world" verifiable, objective data directly from the source. A potential weakness is the inability to find publicly traded companies that are comparable to the subject business/company being valued. If public companies within the same general industry as the subject business/company are identified, significant care must be taken to determine if factors such as the size and the business model are similar enough to allow for a meaningful comparison.

ADDITIONAL WORKING CAPITAL CONSIDERATIONS

- *Level of reliance placed on the subject business/company's actual historical working capital*

When analyzing and evaluating working capital, the valuation analyst will often begin by looking at actual historical data of the subject business/company being valued. Since valuation is forward looking, the question becomes how much reliance to place on historical working capital metrics versus those observed in the market or from the available financial materials of comparable companies (comparables).¹⁵ For example, a subject business/company can historically have a higher sales-to-working-capital ratio than peer companies, which could indicate it needs less investment in working capital to support sales than other

guideline businesses/companies that you may use as a proxy for your valuation analyses. The opposite scenario could also exist; a subject business/company can historically have a lower sales-to-working-capital ratio than guideline peer companies, which could indicate it needs more investment in working capital to support sales than other businesses/companies. The question arises, then, is it fair to adjust to empirical market materials (obtained from peers or industry sources) and either increase or decrease cash flows based on empirical market sources?

These two scenarios could be the result of internal efficiencies or inefficiencies compared to its guideline peers, or the uniqueness of the particular business/company in comparison to the comparables or industry data. It is up to the valuation analyst to determine if a hypothetical willing buyer would have the ability to maintain or improve the sales-to-working-capital ratio into the future or if it would ultimately need to change and operate consistent with the market data.¹⁶ The ownership attributes such as controlling versus non-controlling are relevant to these particular considerations, as a minority owner generally does not have the ability to change the operating structure of the subject business/company being valued.

- *Debt-free versus non-debt-free information*

An additional consideration, once sources and ratios have been identified, is whether the data/information being used are on a debt-free basis.¹⁷ One of the most fundamental concepts within business valuation is applying the materials on a consistent, correct basis. A common example of this matching principle is using a capitalization or discount rate that is consistent with the underlying economic benefits stream (e.g., cash flows). This consistency concept is also relevant in the application of working capital with

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respect to debt-free or non-debt-free data. If you are using a sales-to-working-capital ratio from an industry source, it could be prepared including or not including interest-bearing debt. The industry source may need to be adjusted to a debt-free basis if that is the basis under which the subject business company's materials are being used.

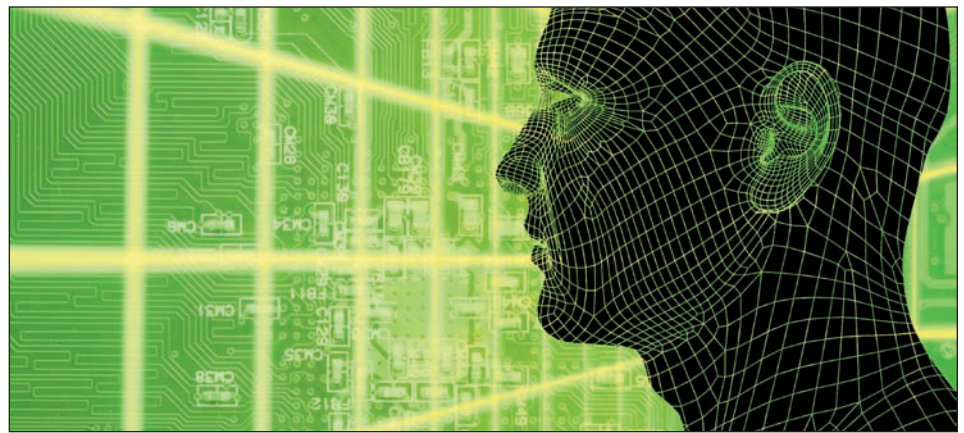
• *Coordinating the adjustments*

If an adjustment has been made for an increase or decrease to cash flows for net working capital, the ramifications to other aspects of the business valuation must be considered. Some questions that should be considered are:

- Is it consistent with the add-backs in other areas, such as any excess or deficient working capital determined?
- Is the adjustment applied appropriately between the capitalized cash flow and discounted cash flow methods?
- Is the adjustment consistent between the approaches?

SUMMARY AND CONCLUSION


Working capital is an important topic that can have significant ramifications in the business valuation of a closely held entity, and therefore must be given due professional care. While this article was not written with the intention of identifying all considerations, it identifies several of the most prominent issues to consider. Due professional care involves analyses of the subject company's/business's actual current and historical materials to make credible decisions about the future. The analyses can include evaluating the quality and the classification of the items included in the subject entities' net working capital. Simple accounting errors such as incorrect classification of an asset as current or the overstatement of accounts receivable could distort the results. Empirical guideline company and other market materials can also be used to assist



in this endeavor. Some of the various sources of information for conducting the research discussed in this article include RMA, First Research, and ValuSource. Once research on the materials has been conducted, the appropriate application is equally important. This can involve application on the appropriate basis, such as debt included or debt free.

Once all decisions have been made, it is a good idea to step away from the preliminary business valuation indicators and perform some high-level reasonableness tests. Some final questions that might be considered are:

- Does management agree with the assessment of *their* working capital needs?
- How many days' worth of expenses does this leave the company?
- What are the company's ratios *after* applying the valuation analyst's determined working capital adjustments?
- Overall, do these working capital analyses make sense with what is known about the subject business/company?

With the resources and concepts illustrated in this article, the business valuation community can strengthen their conclusions and the level of service offered to clients. 

¹ *Glossary – ASA Business Valuation Standards*, p. 32.
² "Definition of a 'Current Asset,'" *U.S. Master GAAP Guide*, Topic 210: Balance Sheet, p. 1.
³ "Definition of a 'Current Liability,'" *U.S. Master GAAP Guide*, Topic 210: Balance Sheet, p. 1.

⁴ A true cash basis of accounting deducts expenses when paid and records revenue when the cash is received.
⁵ The Risk Management Associates, *2016-2017 Annual Statement Studies: Financial Ratio Benchmarks*.
⁶ *Stakeholder* in this context is a general term used by the authors to describe an equity owner of a business. An alternate formula would need to be used if the stakeholders were debt and equity investors. For purposes of this article, we are referring to stakeholders as equity owners.
⁷ Gary Trugman, *Understanding Business Valuation: A Practical Guide to Valuing Small to Medium Sized Businesses*, third edition (AICPA, 2008), p. 312.
⁸ Risk Management Association, <https://rmau.org>.
⁹ First Research, <http://www.firstresearch.com>.
¹⁰ According to the Bureau of Labor Statistics, "For over 60 years, the Standard Industrial Classification (SIC) system served as the structure for the collection, presentation, and analysis of the U.S. economy. An industry consists of a group of establishments primarily engaged in producing or handling the same product or group of products or in rendering the same services."
¹¹ According to the United States Census Bureau, the "North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy."
¹² ValuSource, www.valusourcessoftware.com.
¹³ U.S. Securities and Exchange Commission - <https://www.sec.gov/edgar.shtml>.
¹⁴ *International Glossary of Business Valuation Terms*, Appendix B, VS Section 100 – "Valuation of a Business, Business Ownership Interest, Security, or Intangible Asset," p. 45 defines *guideline public company method* as "a method within the market approach whereby market multiples are derived from market prices of stocks of companies that are engaged in the same or similar lines of business and that are actively traded on a free and open market."
¹⁵ The authors define *comparables* as companies that have similar characteristics to the subject company in such areas as industry, size, earnings, geographical location, etc.
¹⁶ The scenario described assumes the engagement is being performed under the fair market value standard of value as often defined by Revenue Ruling 59-60.
¹⁷ Debt-free basis in this context is defined by the authors as working capital (and sales-to-working-capital ratio) calculated with the removal of structured debt from current liabilities.