

Flotation Cost Adjustments to the Cost of Capital in Unit Principle Valuations

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Valuation analysts are often called on to perform flotation cost studies used in the estimation of the cost of capital for property tax valuation purposes. Flotation costs are the security issuer's cost associated with the public sale—or the private placement—of either debt capital or equity capital. Adjusting the cost of capital for flotation costs may have a material effect on the subject property value conclusion, particularly with regard to unit principle valuations. This discussion (1) summarizes the factors that influence the level of flotation costs and (2) explains the potential effect that a flotation cost adjustment can have on both the cost of capital and the property value conclusion in a unit principle valuation.

INTRODUCTION

Estimating the cost of capital in unit principle valuations prepared for property tax purposes may be a contentious issue between the taxing authority and the taxpayer property owner/operator. This is because small changes in the cost of capital may have a material effect on the concluded value of the subject taxable property.

Variations in the cost of capital often result from differing assessments and estimations of risk. One factor that may be considered in the estimation of the cost of capital is an adjustment for debt and equity flotation costs.

Flotation costs are the security issuer's costs associated with the public sale—or the private placement—of either debt capital or equity capital. Flotation costs include the security offering manager fees, underwriting fees, brokerage and selling concessions, and other expenses related to the sale of debt or equity securities.

Analysts are often called on to perform flotation cost studies to estimate the flotation cost adjustment that may be appropriate in a specific taxing jurisdiction or to a specific taxpayer.

Consideration of a flotation cost adjustment may affect both (1) the taxpayer's cost of capital

and (2) the value conclusion of the unit principle valuation.

The “flotation cost percentage” is often measured as the company's flotation costs calculated as a percentage of the total amount of the debt capital or the equity capital raised.

For example, let's assume that an industrial or commercial taxpayer issues \$100 million of common equity in a public stock offering. Let's assume that the total offering manager fees, underwriting fees, and selling commission fees (i.e., the flotation costs) equal \$2 million.

Based on these assumptions, the flotation costs calculated as a percentage of sale proceeds equals 2 percent (i.e., \$2 million of flotation costs ÷ \$100 million of the sale proceeds from the security offering).

Flotation cost percentages vary due to factors such as the following:

1. The size of the security offering
2. The date that the securities are offered for sale
3. The type of the securities offered
4. The characteristics of the entity offering the securities

5. The underwriter of the securities offering
6. Other factors

Given the variability in flotation costs and their potential effect on the property value conclusions, it is important that analysts understand the factors that affect flotation costs.

COMPONENTS OF TOTAL FLOTATION COSTS

Flotation costs include the security offering manager fees, underwriting fees, brokerage and selling concessions, and other expenses incurred in conjunction with the sale of debt or equity securities.

Underwriting fees often comprise a significant portion of the total flotation costs. Underwriting fees are the fees paid to investment bankers in connection with the issuance of securities.

The underwriter of an issuance of securities is typically an investment bank that receives a commission in return for:

1. pricing the securities and
2. assembling groups of buyers.

Underwriting fees are often referred to as the “gross spread” or “underwriting discount.” Underwriting fees may comprise a significant portion of the total flotation costs.

Underwriter credibility and name recognition may be particularly important to maximize the value of a securities offering. The selection of a prominent underwriter may positively influence underwriting fees.¹

Fees and expenses related to initial public offerings in the United States increased after the Sarbanes-Oxley Act (the “Act”) was enacted in 2002. The Act was enacted to improve financial disclosures and increase transparency and accountability of publicly traded companies. However, the Act resulted in substantial costs associated with meeting the regulatory requirements.

One published study concluded an increase in the cost of going public was associated with the enactment of the Act. This Kaserer, Mettler, and Obernberger study concluded, “This increase is almost entirely due to an increase in accounting and legal fees, while the underwriting fees are almost unaffected by [the Act].”²

The Kaserer, Mettler, and Obernberger study also stated, “We show that the increase in flotation costs is to a large extent an increase in fixed costs.”³

FLOTATION COSTS IN THE PROPERTY TAXATION CONTEXT

Flotation costs are often considered in property tax valuations, particularly with regard to unit principle valuations of utility-type properties. The cost of capital in unit principle valuations may be derived through an analysis of publicly traded securities transactions.

However, there are a number of underlying differences between (1) publicly traded securities transactions and (2) tangible property transactions.

Analysts need to consider these transactional differences. Some of these differences are presented in Exhibit 1.⁴

Adjusting the cost of capital for flotation costs in unit principle valuations can mitigate some of the underlying investment attribute differences between publicly traded securities and tangible property.

According to Pratt and Grabowski, “Another type of adjustment applied in certain states is a flotation cost adjustment. This adjustment recognizes that the cost of capital for an illiquid taxable property is greater than the cost of capital for public companies.”⁵

Before making a flotation cost adjustment, analysts should consider the level of risk assessed through the cost of capital prior to a flotation cost adjustment. Analysts should also consider if a flotation cost adjustment would accurately reflect the risk of the subject taxable property. This is because flotation cost adjustments to the cost of capital may have a material impact on the concluded value of the subject taxable property.

Consideration of a flotation cost adjustment to the cost of capital is a recognized procedure discussed in property valuation texts.

For example, *Property Assessment Valuation* published by the International Association of Assessing Officers explains, “The discount rate, also known as the overall yield rate [Y_0], is the weighted average cost of capital for a particular investment and includes the costs associated with issuing debt and equity.”⁶

The Ibbotson SBBI *2013 Valuation Yearbook* also discusses the adjustment for flotation costs in the context of rate setting for regulated utilities.

According to Ibbotson, “Although the cost of capital estimation techniques set forth in this book are applicable to rate setting, certain adjustments may be necessary. One such adjustment is for flotation costs (amounts that must be paid to underwriters by the issuer to attract and retain capital).”⁷

Exhibit 1

Differences between Public Securities Transactions and Tangible Property Transactions

Public Securities Transactions	Tangible Property Transactions
1. Generally homogenous properties that are competing for investment funds	1. Substantially heterogeneous properties competing for investment funds
2. Large number of buyers and sellers	2. Few buyers and sellers in any one price range
3. Relatively predictable, stable, and low transaction prices	3. Relatively unpredictable and high transaction prices
4. Relatively few government restrictions on secondary market participants	4. Secondary market participants and transactions subject to regulations, registration, and legislation at all levels
5. Fairly balanced supply of—and demand for—the subject properties	5. Volatile demand for, and sluggish supply of, the subject properties

While many analysts agree that flotation costs are appropriate to include in the cost of capital used in unit principle valuations, this adjustment is not universally accepted. Some analysts believe that by including a flotation cost adjustment, the analyst incorrectly relies on the source of funds rather than on the risk of the subject taxable property.

Additionally, some analysts believe that a flotation cost adjustment incorrectly equates the opportunity cost of capital with the allowed rate of return on invested capital.⁸

The analyst should, therefore, consider the level of risk assessed through the cost of capital prior to a flotation cost adjustment in order to assess whether a flotation cost adjustment would accurately reflect the risk of the subject taxable property.

CONSIDERATION OF FLOTATION COSTS BY TAXING AUTHORITIES

Taxing authorities may espouse differing views with regard to a flotation cost adjustment to the cost of capital in unit principle valuations.

The Western States Association of Tax Administrators Committee on Centrally Assessed Property *Appraisal Handbook* (the “WSATA Handbook”) states, “There really is no disagreement that there are costs associated with the issuance of stock and debt, the issue is whether it should be reflected in the capitalization rate. Flotation costs are not part of the opportunity cost of capital. . . . Flotation costs should be treated

as incremental (negative) cash flows; they do not increase the required rate of return. Flotation costs are the result of a financing decision and are a cost of doing business but do not affect the opportunity cost of capital.”⁹

However, the view stated in the WSATA Handbook, that flotation costs should be excluded from the cost of capital, is not uniformly held by all taxing jurisdictions, even in the western United States.

Many state tax assessment authorities prepare publicly disclosed annual capitalization rate studies that include discussion of flotation cost adjustments. State tax assessment authorities often consider input from taxpayers and analysts as a part of the development of these capitalization rate studies.

The following discussion summarizes five selected state capitalization rate studies. These five capitalization rate studies conclude an estimated capitalization rate promulgated by the state taxing authorities. The results of these studies may (or may not) be upheld in litigation.

California

The *2016 Capitalization Rate Study by the California State Board of Equalization* (the “California Study”) considered flotation costs in the estimation of the cost of capital for the state’s major industry groups.

The California Study explains, “Flotation costs effectively reduce the net proceeds that a firm will

receive from issuing securities. The cost of capital is adjusted upward to reflect the expected flotation costs incurred to issue securities.”¹⁰

The formula used in the California Study to adjust the cost of capital for flotation costs is as follows:

Cost of Capital Adjusted for Flotation Costs =

$$\frac{k_u}{1-f}$$

where:

k_u = Cost of capital unadjusted for flotation costs

f = Flotation cost as a percentage of the value of securities issued

The California Study also notes, “Since the flotation costs are reflected in the weighted average cost of capital, the flotation costs should not be allowed as expenses in projecting cash flows to be capitalized.”¹¹

In other words, an adjustment for flotation costs can be reflected in either (1) the cost of capital or (2) the expected cash flow—but not in both valuation variables.

Nevada

The *Nevada Department of Taxation Capitalization Rate Study Calendar Year 2015* (the “Nevada Study,” latest available) included a flotation cost adjustment in its estimation of the cost of debt, common equity, and preferred equity for railroad, airline, electric, natural gas, and telecommunication property.

Similar to the California Study, the Nevada Study adjusted for flotation costs through a flotation cost multiplier. The flotation cost multiplier for the cost of debt and for the cost of preferred equity was “obtained by dividing 1 by 1 minus the flotation cost.”¹²

The flotation cost of common equity was calculated using the following formula:

$$K = \frac{D}{P(1-f)} + g$$

where:

K = Cost of common equity adjusted for flotation costs

D/P = Dividend yield

f = Flotation cost percentage

g = Growth rate

Wyoming

The *Wyoming Department of Revenue 2016 Capitalization Rate Study* (the “Wyoming Study”) adjusted the concluded capitalization rates to include flotation costs.¹³

The Wyoming Study estimated capitalization rates for airlines, communication companies, railroads, electric companies, and natural gas pipelines.

The Wyoming Study did not indicate the formula used to adjust the cost of capital for flotation costs.

Minnesota

The *Minnesota Department of Revenue 2016 Capitalization Rate Study, Revised* (the “Minnesota Study”) did not include flotation costs in its estimations of the cost of capital for utility, pipeline, and railroad operating property.

The Minnesota Study notes, “The yield rate and direct rate are not recovery mechanisms for the costs of doing business. Flotation cost adjustments were not made to the yield rate or direct rate in this study.”¹⁴

Oklahoma

The *Oklahoma Tax Commission Capitalization Rate Study* (the “Oklahoma Study”) estimated capitalization rates for the airline, electric, natural gas, railroad, telecommunications, and water industries.

Similar to the Minnesota Study, the Oklahoma Study did not adjust the concluded capitalization rates for debt or equity flotation costs.

The Oklahoma Study states, “Financial theory suggests and evidence supports that firms do not typically issue new common equity as a matter of common practice. Therefore in determining a capitalization rate, no adjustment will be made in the capitalization rate or the income stream for hypothetical flotation costs. Flotation costs actually incurred may be accounted for in the income stream.”¹⁵

Summary of State Capitalization Rate Studies

As indicated in the five capitalization rate studies summarized above, consideration of flotation costs

“[I]t is important to reflect the [flotation cost] adjustment in either the taxpayer cost of capital capitalization rate or the expected cash flow, but not in both valuation variables.”

in the cost of capital may vary from state to state. These five capitalization rate studies demonstrate the varied perspectives with regard to consideration of flotation cost adjustments to the cost of capital.

A taxpayer may benefit from reviewing the appropriate state capitalization rate study to understand if—and how—the state tax assessment author-

ity adjusts the cost of capital for flotation costs.

If a flotation cost adjustment is allowed by the subject taxing authority, it is important to reflect the adjustment in either the taxpayer cost of capital capitalization rate or the expected cash flow, but not in both valuation variables.

FLOTATION COST PERCENTAGE TRENDS

Three studies that analyzed the historical trends in flotation cost percentage trends are summarized below. All three of these studies were performed with regard to the flotation costs of securities offered through initial public offerings (“IPOs”).

A comprehensive flotation cost study may not be limited to IPOs, which may have higher flotation costs than secondary security offerings.

The studies summarized below are presented to illustrate general trends in flotation costs. These studies may not be appropriate in a specific taxing jurisdiction or to a specific taxpayer property owner.

Flotation Cost Percentage and IPO Size

The first study summarized was a study published in 1987 by Jay Ritter (the “Ritter Study”). The Ritter Study analyzed the relationship between IPO size and the IPO flotation cost percentage and whether flotation cost percentages may be affected by economies of scale.

That is, flotation costs may not increase at the same rate as increases in the amount of debt or equity securities offered for sale. Some of the costs associated with the sale of debt or equity securities may be relatively fixed, such as legal expenses.

The Ritter Study noted an inverse relationship between IPO gross proceeds and total IPO-related cash expenses (i.e., flotation costs). The Ritter Study was performed for two types of investment banking contracts:

1. Firm commitment IPO offers
2. Best efforts IPO offers

In a firm commitment IPO offer contract, after a final prospectus is issued, investment banks guarantee to deliver proceeds (net of commissions) to the issuing firm regardless of whether or not the offer is fully subscribed. In a best efforts IPO offer contract, the issuing firm and investment bank agree to an offer price and a minimum and maximum number of shares to be sold.

If the minimum number of shares are not sold within a specified period of time, the offer is withdrawn, the investors’ money is refunded, and the issuing firm doesn’t receive any money.

The results of the Ritter study are presented in Exhibit 2.

As presented in Exhibit 2, the Ritter Study indicates an inverse relationship between IPO gross proceeds and flotation costs. That is, as the amount of gross proceeds increase, the percentage of flotation costs decrease.

The second study summarized was a study published in 2012 by PricewaterhouseCoopers LLP (the “PwC Study”). The PwC Study noted an inverse correlation between IPO gross proceeds and the underwriter discount as a percentage of gross proceeds.

This study is summarized in Exhibit 3.

The Ritter Study and the PwC Study indicate that as IPO gross proceeds increase, underwriter fees and other flotation costs generally decrease.

Secondary issuances of securities have similar cost structures to IPOs. The results of these studies are, therefore, generally indicative of the flotation cost trends for the issuance of primary and secondary securities.

Historical Flotation Cost Percentages

Flotation cost percentages have not remained constant over time. In fact, there has been a generally decreasing trend in flotation cost percentages. This is because flotation cost percentages are sensitive to changes within the financial industry, such as technological changes, regulatory changes, and the level of competition in the investment underwriting industry.

Exhibit 2
Ritter Study regarding the Costs of an IPO

IPO Gross Proceeds [a] (\$000)	Number of Transactions Considered	Underwriting Price Discount [b] (%)	Other Flotation Costs [c] (%)	Total IPO-Related Cash Expenses (%)
<u>Firm Commitment IPO Offers</u>				
100–1,999	68	9.84	9.64	19.48
2,000–3,999	165	9.83	7.60	17.43
4,000–5,999	133	9.10	5.67	14.77
6,000–9,999	122	8.03	4.31	12.34
10,000–120,175	<u>176</u>	<u>7.24</u>	<u>2.10</u>	<u>9.34</u>
All Offers	<u>664</u>	<u>8.67</u>	<u>5.36</u>	<u>14.03</u>
<u>Best Efforts IPO Offers</u>				
100–1,999	175	10.63	9.52	20.15
2,000–3,999	146	10.00	6.21	16.21
4,000–5,999	23	9.86	3.71	13.57
6,000–9,999	15	9.80	3.42	13.22
10,000–120,175	<u>5</u>	<u>8.03</u>	<u>2.40</u>	<u>10.43</u>
All Offers	<u>364</u>	<u>10.26</u>	<u>7.48</u>	<u>17.74</u>
<p>[a] Gross proceeds categories are nominal; no price level adjustments were made. [b] The underwriting discount is the commission paid by the issuing firm. [c] Other flotation costs include legal fees, printing costs, and other flotation costs. None of the expense categories include the value of warrants granted to the underwriter, a practice that is common with best efforts offers. Source: Jay R. Ritter, “The Costs of Going Public,” <i>Journal of Financial Economics</i> 19, no. 2 (January 1987): 269–272.</p>				

In fact, in 2000, Ritter noted that decreases in flotation cost percentages were affected by the following:

1. Competition between commercial banks and investment banks for investment underwriting contracts
2. Changes in technology with the innovation of the Internet and online investment underwriting resources.¹⁶

Historical trends in flotation costs related to IPOs are summarized in a second study published in 2016 by Ritter (the “2016 Ritter Study”).

The results of this study are summarized in Exhibit 4 on the next page.

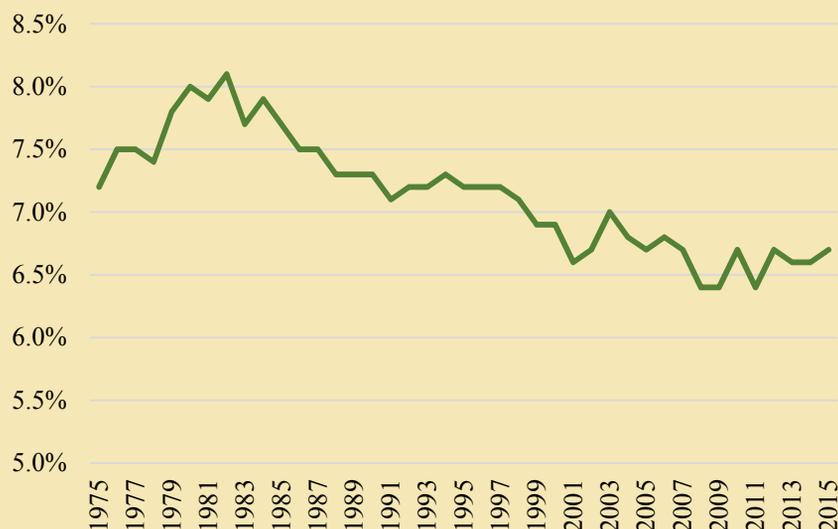
As indicated in Exhibit 4, the mean gross spread generally decreased from a high of 8.1 percent in 1982 to 6.7 percent in 2015.

While IPO flotation costs are likely higher than flotation costs for the secondary issuances of securities, the results of this study are generally indicative

Exhibit 3
PricewaterhouseCoopers Study regarding the Costs of an IPO

Gross Proceeds (\$Millions)	Number of IPOs	Underwriter Discount (%)
0-50	41	6.9
51-100	115	6.8
101-200	115	6.6
201-300	45	6.3
301+	73	5.5
<p>Source: Martyn Curragh, Henri Leveque, and Neil Dhar, et al., “Considering an IPO? The Costs of Going and Being Public May Surprise You,” PricewaterhouseCoopers LLP (September 2012), http://www.strategyand.pwc.com/media/file/Strategyand_Considering-an-IPO.pdf (accessed March 29, 2017).</p>		

Exhibit 4
2016 Ritter Study
The Mean IPO Gross Spread



Source: Jay R. Ritter, "Initial Public Offerings: Underwriting Statistics through 2015," University of Florida, March 8, 2016.

of historical flotation cost trends for all security issuances.

APPLICATION OF FLOTATION COST ADJUSTMENTS

An adjustment to the cost of capital for flotation costs can have a significant effect on the concluded value of the subject taxpayer tangible property. Let's consider the following analysis for a hypothetical taxpayer, Natural Gas Distribution Company ("NGDC"). NGDC is located in California.

The analyst has determined that a flotation cost adjustment would accurately reflect the risk associated with the illiquid subject taxable property. Exhibit 5 summarizes the effect of a flotation cost adjustment on the value indication of the income approach, direct capitalization method.

As presented in Exhibit 5, adjusting the NGDC cost of capital for flotation costs decreases the indicated total unit value by \$22 million.

Flotation cost adjustments to the cost of capital may also affect (1) the level of economic obsolescence cost in the cost approach analysis and (2) the intangible asset value encompassed in a unit principle valuation of taxable property.

For example, an adjustment to the cost of capital for flotation costs may affect the indicated level of economic obsolescence. One method to estimate

the level of economic obsolescence is the capitalization of income loss method. In this method, the analyst compares:

1. the cost of capital to
2. the actual return on assets.¹⁷

An increase in the cost of capital for flotation costs could, therefore, increase the indicated level of economic obsolescence.

The intangible asset component of the taxpayer unit of total operating property may also be affected by a flotation cost adjustment. Intangible assets are often encompassed in the unit principle valuation conclusion.

In a unit principle valuation, the intangible asset value may be subtracted from the total unit income approach and market approach value indi-

cations, where appropriate. The cost of capital is often used to estimate the entrepreneurial incentive required to develop intangible assets.¹⁸

An adjustment to the cost of capital for flotation costs may therefore affect the concluded intangible asset value in a unit principle valuation.

DEVELOPING A CREDIBLE FLOTATION COST STUDY

In order to develop a credible flotation cost study, it is important for the analyst to understand the factors that influence the level of flotation costs.

Flotation cost percentages may vary significantly and may correlate to the following factors:

- Size and date the securities are offered for sale
- The type of securities offered
- The characteristics of the firm offering the securities
- The underwriter
- Other factors

Several databases are available to provide flotation cost data to analysts. These databases include Bloomberg and Thomson ONE.

Exhibit 5
Hypothetical Taxpayer Natural Gas Distribution Company
Income Approach, Direct Capitalization Method
Value Summary with and without Flotation Cost Adjustment

Estimation of Unadjusted Direct Capitalization Rate		
Estimated Cost of Equity Capital	10.0%	
Multiplied by: Equity/Invested Capital	<u>50.0%</u>	
Equals: Weighted Cost of Equity Capital		5.0%
Estimated Cost of Debt Capital	3.5%	
Multiplied by: Debt/Invested Capital	<u>50.0%</u>	
Equals: Weighted Cost of Debt Capital		<u>1.8%</u>
Indicated Yield Capitalization Rate		6.8%
Less: Expected Long-Term Growth Rate		<u>0.0%</u>
Direct Capitalization Rate		<u><u>6.8%</u></u>

Adjustments for Flotation Costs	
Unadjusted Cost of Equity	10.0%
Equity Flotation Cost Percentage	<u>3.0%</u>
Adjusted Cost of Equity [a]	10.3%
Unadjusted Cost of Debt	3.5%
Debt Flotation Cost Percentage	<u>0.5%</u>
Adjusted Cost of Debt [a]	3.5%

Estimation of Adjusted Direct Capitalization Rate		
Estimated Cost of Equity Capital	10.3%	
Multiplied by: Equity/Invested Capital	<u>50.0%</u>	
Equals: Weighted Cost of Equity Capital		5.2%
Estimated Cost of Debt Capital	3.5%	
Multiplied by: Debt/Invested Capital	<u>50.0%</u>	
Equals: Weighted Cost of Debt Capital		<u>1.8%</u>
Indicated Yield Capitalization Rate		6.9%
Less: Expected Long-Term Growth Rate		<u>0.0%</u>
Direct Capitalization Rate		<u><u>6.9%</u></u>

Unit Principle Valuation	Scenario Using	Scenario Using
Income Approach	Unadjusted Direct	Adjusted Direct
Direct Capitalization Method (\$000s)	Capitalization Rate	Capitalization Rate
Net Operating Cash Flow	100,000	100,000
Divided by: Direct Capitalization Rate	<u>6.8%</u>	<u>6.9%</u>
Equals: Indicated Fair Market Value of Total Unit of Operating Assets (rounded)	1,471,000	1,449,000
Less: Intangible Asset Value	<u>(400,000)</u>	<u>(400,000)</u>
Equals: Indicated Tangible Asset Value	1,071,000	1,049,000
	Difference of \$22 Million	

[a] In this example, the formula used to estimate the flotation cost adjustment is the formula specified in the 2016 California Study of:

$$\frac{k_u}{1-f}$$

Bloomberg is an online database that provides financial information on:

1. nearly all active and inactive U.S. publicly traded companies and
2. active and inactive international companies.

Debt, common equity, and preferred equity securities may be searched by numerous criteria including size, date, industry sectors, and Standard Industrial Classification (“SIC”) codes.

The information in this database is updated frequently. More information is available at www.bloomberg.com/professional/.

Thomson ONE is an online database that provides financial information on approximately 52,000 public companies and over one million private companies. Debt, common equity, and preferred equity securities may be searched by numerous criteria including size, date, Global Industry Classification Standard codes, and SIC codes.

The information in this database is updated frequently. More information is available at <http://thomsonreuters.com>.

Analysts can search these databases based on numerous criteria to identify public issues of debt, common equity, or preferred equity of companies that are sufficiently comparable to the subject taxpayer company.

For example, let’s consider a flotation cost study performed to assist a taxpayer railroad owner/operator in determining its cost of capital. For this study, the analyst may exclude debt offerings from security issuers (i.e., debtors) that primarily operate in the finance or real estate industries.

Debt offerings from the finance and real estate industries may be excluded. This is because companies in these industries operate under a different (and somewhat unique) regulatory environment compared to companies that operate in other industries.

Analysts may have to balance:

1. narrow criteria that identify only debt or equity offerings for companies with a high degree of comparability to the subject taxpayer with
2. the need for a statistically significant number of data points.

This balance may require significant analyst experience and professional judgement.

After screening a database using the above-mentioned factors, the analyst should carefully review the indicated results for flotation cost data that do not fit the analyst’s screening criteria. By reviewing the security offering prospectuses filed with the Securities and Exchange Commission, the analyst can verify that the indicated securities offerings are relevant to the subject flotation cost study.

After screening and verifying the flotation cost data, the analyst should then compile the data in a useful format. The analyst may identify meaningful estimations of the flotation cost percentage for the subject tangible property by selecting an indicator of central tendency from the compiled data.

Lastly, a credible flotation cost study should be well documented and should provide a thorough discussion of the procedures that the analyst applied to develop the flotation cost analysis.

CONCLUSION

Consideration of flotation costs in the cost of capital of unit principle valuations may be a contentious issue between taxing authorities and taxpayer property owners. This is because small variations in the cost of capital may result in material changes in the concluded value of the subject taxable property.

Many factors affect flotation cost percentages. These factors include the following:

1. The size of the security offering
2. The date that the securities are offered for sale
3. The type of securities offered
4. The characteristics of the entity offering the securities
5. The underwriter of the securities offering
6. Other factors.

Before making a flotation cost adjustment, the analyst should consider the level of risk assessed through the cost of capital prior to a flotation cost adjustment.

And, the analyst should consider if a flotation cost adjustment would accurately reflect the risk of the subject taxable property.

Continued on page 85

FLOTATION COST ADJUSTMENTS

Continued from page 32

Notes:

1. Hsuan-Chi Chen and Jay R. Ritter, "The Seven Percent Solution," *The Journal of Finance* 55, no. 3 (June 2000).
2. Christoph Kaserer, Alfred Mettler, and Stefan Obernberger, "The Impact of the Sarbanes-Oxley Act on the Cost of Going Public," *German Academic Association of Business Research* 4, no. 2 (December 2011): 126.
3. Ibid.
4. Robert F. Reilly and Robert P. Schweihs, *Guide to Property Tax Valuation* (Chicago: Willamette Management Associates Partners, 2008), 153.
5. Shannon P. Pratt and Roger J. Grabowski, *Cost of Capital in Litigation: Applications and Examples* (New York: John Wiley & Sons, 2011), 229.
6. *Property Assessment Valuation*, 3rd edition, (Kansas City: International Association of Assessing Officers, 2010), 305.
7. Ibbotson SBBI 2013 Valuation Yearbook (Chicago: Morningstar, 2013), 25.
8. Richard Simonds, "Income Capitalization, Flotation Costs, and the Cost of Capital," *Journal of Property Tax Assessment and Administration* 3, no. 4 (2007).
9. *Western States Association of Tax Administrators Committee on Centrally Assessed Property, Appraisal Handbook: Unit Valuation of Centrally Assessed Properties* (2009), III-30, III-31.
10. California State Board of Equalization, 2016 Capitalization Rate Study (2016), iii.
11. Ibid.
12. Nevada Department of Taxation, Capitalization Rate Study Calendar Year 2015 (2015), 6.
13. Wyoming Department of Revenue, 2016 Capitalization Rate Study (March 31, 2016), 2.
14. Minnesota Department of Revenue, 2016 Capitalization Rate Study, Revised (May 23, 2016), 10–11.
15. Oklahoma Tax Commission, Capitalization Rate Study (January 2016): 4.
16. Hsuan-Chi Chen and Jay R. Ritter, "The Seven Percent Solution," *The Journal of Finance* 55, no. 3 (June 2000)
17. Reilly and Schweihs, *Guide to Property Tax Valuation*, 266–267.
18. Entrepreneurial incentive is the fair rate of return on the time and money investment in the intangible asset development project to economically motivate the development process.

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