

SPECIAL ISSUE: COST OF CAPITAL

With all eyes on this important topic, we are pleased to present a *BVU* special issue with coverage on the latest in cost of capital news. In addition to our special coverage, please see this month's insert for more information on the upcoming publication of the *Valuation Handbook—Guide to Cost of Capital* and the *Risk Premium Calculator*. Information also available at www.bvresources.com/dp.

The Implied Private Company Pricing Model (IPCPLM)

$$K_0 = (FCFF_1 / P) + g$$

By Bob Dohmeyer, ASA; Pete Butler, CFA, ASA; and Rod Burkert, CPA/ABV, CVA

Editor's Note: The authors have developed a model designed to be more reliable than the build-up method for estimating the cost of capital of a small privately held business. This model uses the authors' new Implied Private Company Pricing Line 2.0 (IPCPL) and is indexed directly to the IPCPL cost of capital. The model allows adjustments for differences in systematic risk (i.e., beta), diversifiable and total risk (i.e., total beta), liquidity, and debt capacity.

Introduction

In the September 2013 issue of *Business Valuation Update (BVU)*, we introduced the Implied Private Company Pricing Line 2.0 (IPCPL). IPCPL uses small private company transaction data to solve directly for the cost of capital for a typical risk private company with \$150 million or less in revenue. The feedback from the article and our webinar was excellent. *BVU* now publishes monthly the "BVR Private Company Cost of Capital Index" based on IPCPL. Please see *BVU* back page for more.

While there was overwhelming support for IPCPL, many appraisers requested that we also develop a model that adjusts the IPCPL for companies with outlier fundamental characteristics. In response, we

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It's in There! So What Else Is Included in Your Estimated Cost of Capital?

By Ted Israel, CPA/ABV/CFF, CVA

In a long-running TV ad for spaghetti sauce during the 1980s, a pitchman repeatedly responds to inquiries about the product's ingredients with the phrase: "It's in there!" This response might also apply to your estimated cost of capital.

Several years ago, while researching a method to objectively estimate company-specific risk, I found indications that the effects of many of the risk attributes I sought to address were already captured in the size premium. My findings were

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IPCPM

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developed the implied private company pricing model (IPCPM)—a derivation of the IPCPL that allows for a departure from the IPCPL line. After all, some companies have fundamentally important different characteristics that justify a departure from the average of companies that make up the IPCPL line. We show below that IPCPM is worthy of consideration because it is inherently more reliable than the build-up method.¹

Before we proceed to the IPCPM, we will review:

- Build-up method unreliability—the fundamental underlying causes of why the build-up method is inherently unreliable, making IPCPM worthy of consideration; and
- The IPCPL—the core cost of capital breakthrough that IPCPM starts from and accounts for the vast majority of the IPCPM cost of capital estimation.

The Build-Up Method: Peeling the Onion

Professor Damodaran:

The build-up approach is a recipe for disaster.²

Dr. Paglia:

In a galaxy far far away, where unicorns prance on the back of the Loch Ness monster and privately-held companies have access to public equity markets, appraisers estimate cost of capital ... [using returns of publicly traded equity securities].³

1 We have previously cited the many problematic issues with the build-up method. For example, please see our article, “The Implied Private Company Pricing Line 2.0,” which was published in the September 2013 edition of *Business Valuation Update* and is now available from BVR as a free download at www.bvresources.com/IPCPLArticle.
 2 Presentation at the ASA Advanced Business Valuation Conference in October 2009 in Boston during a debate with Larry Kasper, Pete Butler, and Christopher Tofallis regarding total beta.
 3 One of the authors of the Pepperdine Private Capital Markets Project in a LinkedIn discussion.

Pepperdine survey:

78% of respondents do not feel comfortable with the build-up methodology that uses returns on publicly traded equity securities.⁴

From the Court of Chancery of Delaware, New Castle County 902 A.2d 1130 (2006), we have this:

This court has also explained that we have been understandably suspicious of expert valuations offered at trial that incorporate subjective measures of company-specific risk premia, as subjective measures may easily be employed as a means to smuggle improper risk assumptions into the discount rate so as to affect dramatically the expert’s ultimate opinion on value. (*Gesoff v. IIC Industries*)

The company-specific risk premium (CSRP) issue:

Gary Trugman, a noted expert in business valuation, provides the list in Exhibit 1 of asset classes on a risk-descending basis to illustrate company-specific risk.⁵

Exhibit 1. Asset Classes (Risk-Descending Basis)
Junk Bonds
Small Company Stocks
Large Company Stocks
Corporate Bonds (AAA)
Certificates of Deposit
Treasury Bonds
Treasury Bills

With each and every asset class listed above, we can *observe* historical investment rates of return. With small privately held businesses, we have no data on historical rates of return. This is a critical distinction. And Trugman points out:

4 Pepperdine Private Capital Markets Project, Survey Report III, Summer 2010.
 5 trugmanvaluation.com/pdf/presentations/Company_Specific_Risk.pdf.

Although much is written about analyzing companies, when the subject of quantifying the analysis into a number called the specific company risk premium, the textbooks do not have much to say.... There is no objective source of data to properly reflect or quantify the specific company risk premium. It is a matter of judgment and experience. There are no mystical tables that an appraiser can turn to, nor can the appraiser be totally comfortable with this portion of the assignment.⁶

Shannon Pratt, et al., states:

The estimation of the effect of investment-specific (unsystematic) risk is often a matter of the analyst's professional judgment.... There is no specific model or formula for quantifying the exact effect of all the investment-specific risk factors on the discount rate.... This is ultimately based on the analyst's experience and judgment.⁷

And Jim Hitchner adds:

The final component of the discount rate is the risk specific to the company being valued and/or the industry in which it operates. This is one of the most subjective areas of business valuation.⁸

Conclusion: *Everyone* admits there is no scientific basis to test for reasonableness. Thus, unlike the asset classes listed above, where we can observe investment rates of return, we cannot observe actual rates of return for typical small privately held companies (SPC), and, as a result, a CSR of 1% may be as supportable as 21%.⁹

6 Ibid.

7 Shannon P. Pratt, Robert F. Reilly, and Robert P. Schweih, *Valuing a Business*, 4th Edition: 181.

8 James R. Hitchner, *Financial Valuation: Applications and Models*, 1st edition: 144.

9 For purposes of discussion, we will refer to the small privately held company as a "SPC"—a privately held company with approximately \$5 million in sales and predominantly bought and sold by owner-operators.

The Small Stock Premium Issue

The build-up method has the same reliability problem when it comes to the question of which small stock premium should be applied. Exhibit 2 says it all. Why do many appraisers just stop at Decile 10—either a, b, y or z—and not extrapolate to smaller (private company) sizes?

Unfortunately, Duff & Phelps are no help here either since they claim that their data are applicable for a "publicly traded minority basis."

Therefore, unlike the other asset classes listed above, where we can observe investment rates of return, we cannot observe actual rates of return for the SPC. So again, from the data in Exhibit 2, a small stock premium (SSP) of 6% may be as supportable as 35%.

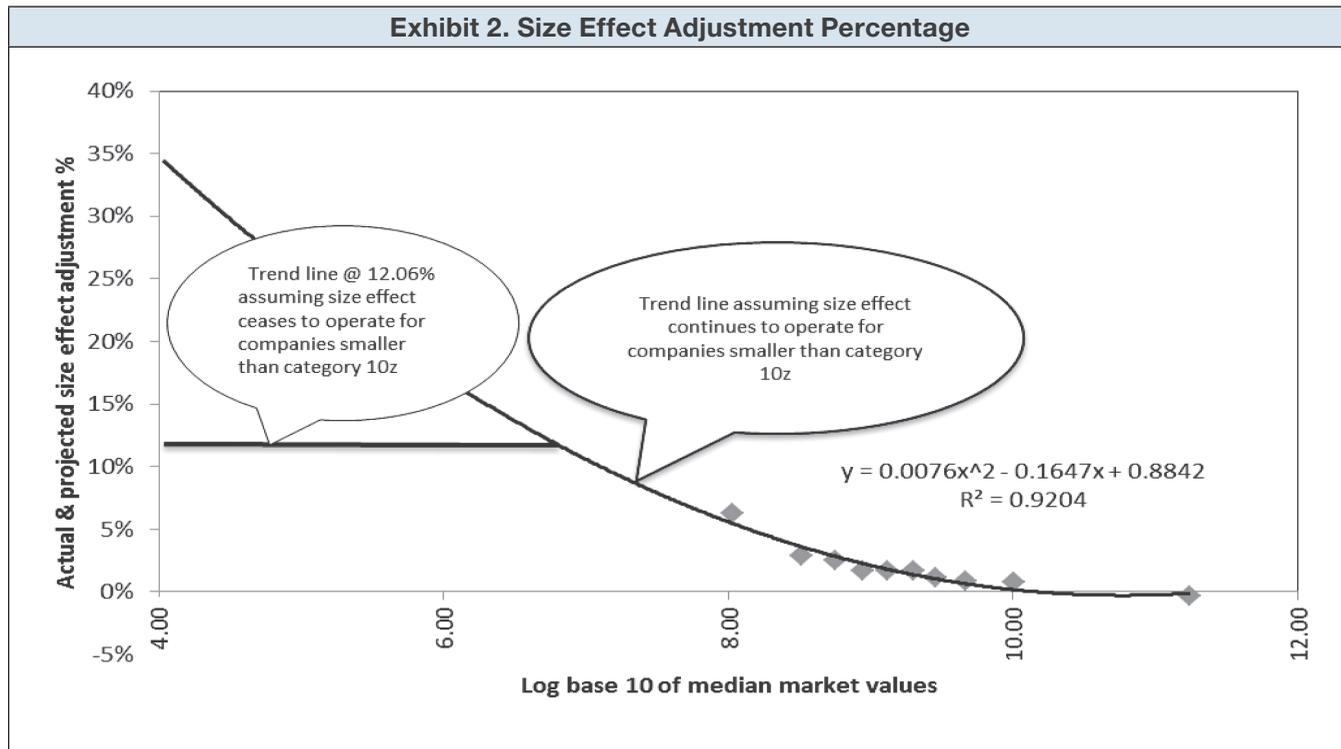
With this in mind, we have challenged business appraisers on their use of the build-up method for a SPC. It goes like this:

Questions:

- According to our surveys, nearly four times as many choose decile 10,10b, or 10a, versus 10z. This makes no sense—if we believe that size correlates to the SPC, we should pick 10z—it's a lot closer! So why not use 10z instead of 10a? Or why not extrapolate all the way to our SPC size, instead of stopping at 10, 10a, 10b, or 10z?
- Why not use a CSR of 21%? Or why not use a CSR of 1%?
- So how do you make adjustments for size and company-specific risk?

Answer: When pushed and peppered with the above, appraisers admit (paraphrasing the industry):

There is obviously nothing scientific with my CSR, and my small stock premium choice is admittedly arbitrary, but if I used something



way different, the resulting value would be unrealistic.

But since we can't observe SPC investment return evidence how do we *know* what's unrealistic?

(Paraphrasing the industry) *The market approach, generally.* If I used a 21% CSRP or a 35% SSP, for example, the present value would be too low compared to the indication of value I arrive at using the market approach.

So because we cannot observe the historical investment returns of SPCs, when you peel the onion all the way, the *only* "build-up method accuracy tethering device" is an idiosyncratic and anecdotal synchronization to observed transaction prices.¹⁰ IPCPL was specifically designed with this understanding in mind. It maximizes reliability by optimizing transaction data synchronization in a thorough and reliable manner. Thus, we believe, IPCPL is inherently more reliable than the build-up method.

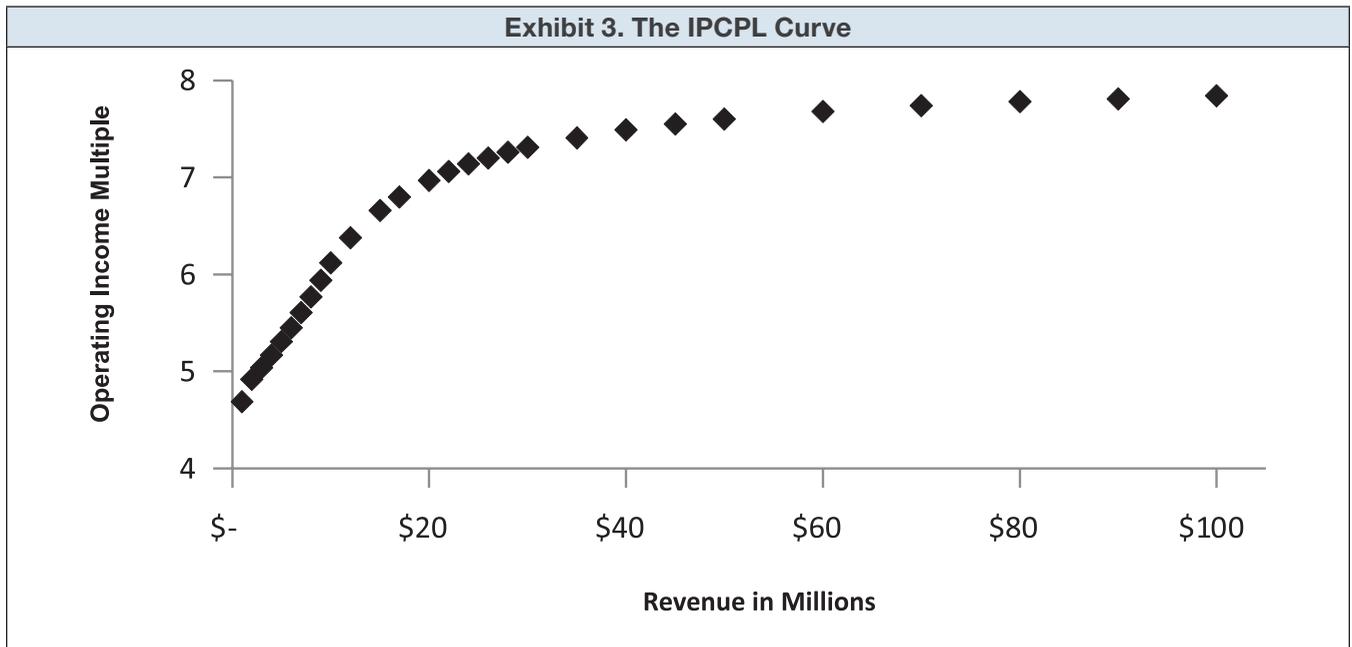
¹⁰ One may argue that they are tethered by common usage of other experts, but that is circular. Also, polls show experts are all over the map on these issues.

The IPCPL: A Way Forward

IPCPL aggregates 500 *Pratt's Stats* private company transactions and directly estimates the aggregate IRR on free cash flows. This ex-ante approach of measuring the IRR is fundamentally the same as Professor Damodaran's monthly calculation of the implied equity risk premium. By using fair market value prices paid for small privately held companies, all of the public security return extrapolation issues are rendered moot. Effects of liquidity, unsystematic and systematic risk, and taxes are already reflected in (i.e., "baked-in") the SPC market clearing prices. Using lower discount rates would yield values in excess of this market evidence; using higher discount rates would yield values below this market evidence.

Thus, IPCPL solves these dilemmas:

- What tax rate should I use?
- How should I adjust for the lower liquidity of small privately held businesses, if at all?
- What equity risk premium and risk free rate should I use?



- Should I adjust for the higher-than-S&P-500 systematic risk of small privately held businesses? If yes, how?
- How much debt should I assume in my WACC? How do I unlever and relever beta? And how do I determine the amount of “excess” cash?¹¹
- Should I adjust for the much higher unsystematic risk of privately held companies? If yes, what level of diversification should I assume?
- Should I use a SSP? If yes, which SSP should I use? How do I extrapolate it to a small privately held business without double counting liquidity and higher systematic risk?
- Data Point 1 is based on transaction prices of 500 SPCs from the Pratt’s Stats transaction database, published by Business Valuation Resources (the IPCPL 500).
- Data Point 2 is based on the cost of capital, adjusted for the cost of going and staying public, of microcap publicly traded companies in the range of \$150 million revenues.

As expected, our K_o calculations indicate a higher required return for the smaller-sized companies of Data Point 1 and a lower required return for the larger-sized companies of Data Point 2. Further, the two points are connected by a curve that is shaped by the “no-arbitrage” rule to mitigate any possibility to arbitrage or profitably roll up the smaller companies into larger ones.

IPCPL is the private company cost of capital line (curve) shown in Exhibit 3 and is created by connecting two data points:

IPCPL Data Point 1:

The IPCPL cost of capital is derived from the well-known valuation axiom $K_o = (FCFF_1/P) + g$. Since K_o is axiomatic, Point 1 is the natural result if the inputs $FCFF_1$, P , and g are sound. Exhibit 4 summarizes IPCPL Point 1.¹²

¹¹ Pratt’s Stats data are market value of invested capital (MVIC). Therefore, all K_o optimal debt financing is included in the MVIC. Consequently, the IPCPL result is automatically adjusted for actual FMV transaction debt proportions and, therefore, is an optimal cost of capital.

¹² The actual IRR in our model after adjusting for midperiod receipt of cash flows is 22.12%.

The IPCPL 500's 19.69% IRR represents the cost of capital (pretax FCFF discount rate) most consistent with actual clearing prices for the asset class—SPC.¹³ Stated differently, the \$1.928 billion aggregate fair market value (or “P” in the K_0 equation) inherently reflects the market's net

adjustment for unsystematic risk/CSRP, illiquidity, debt capacity, size, and pass-through entity taxes, etc.

IPCPL Data Point 2:

Point 2 on the IPCPL curve is for otherwise comparable companies with \$150 million revenue. Given that private companies of this size can go public, we employ standard K_0 estimation using the Fama-French three-factor model on the most broadly traded microcap exchange traded fund, iShares Micro-Cap ETF (Ticker IWC). We then adjust the result for the costs of going and staying public to convert to a private company equivalent.

Connecting the dots:

As previously noted, we assumed a “no-arbitrage” approach to develop the curve between Data Point 1 and Data Point 2. Otherwise, investors could roll up companies, take them public, and earn excess returns. The resulting nonlinear curve is set forth in Exhibit 3, showing that the proxy for liquidity and unsystematic risk is nonlinear.¹⁴

Exhibit 4. IPCPL 500 From Pratt's Stats	
IPCPL 500 <i>From Pratt's Stats</i>	
	\$ Millions
Revenue TTM	\$3,293
Operating Income TTM	\$335
Operating Income Margin (%)	10.17%
Market Value (P)	\$1,928
Operating Income Multiple	5.76
Estimated Growth (G)	3.27%
Operating Book Capital % of Revenue	27.3%
Operating Income Year+1	\$346
Operating Book Capital	\$899
Operating Book Capital Growth Year+1	\$29
Operating FCFF Year+1	\$317
Operating FCFF Year+1 / Market Value	16.42%
$K_0 = FCFF1/P + G$	19.69%
Present Day Adjustment	0.76%
$K_0 = FCFF1/P + G$ Present Day	20.45%
Holding the above relationships constant:	
$FCFF1 = \$335 * 1.0327 - \$899 * 3.27\% = \$317$	
$K_0 = \frac{FCFF_1}{P_0} + g$	
$= \$317/\$1,928 + 3.27\% = 19.69\% = IRR$	

IPCPM: The Solution

IPCPL, using the Gordon growth model axiom, solves for SPC K_0 and uses the no-arbitrage rule to adjust K_0 for size. However, all SPCs of the same size do not necessarily have the same K_0 . IPCPM starts with the IPCPL K_0 estimate and adjusts for *intra same size outlier SPC* differences. Therefore, it can be described as a “build-out” model that builds out from the IPCPL line. Consequently, the average build-out adjustment to IPCPL K_0 is zero. If the SPC is typical, then the IPCPM result equals the IPCPL result. In other words, the IPCPL result is the best K_0 estimate. If the SPC is atypical, then the IPCPM result is the better K_0 estimate.

13 Even though the marginal buyer of the SPC is a pass-through entity, a plurality of SPC appraisers assume a 35% tax rate. IPCPL/IPCPM converts the IRR to any assumed after-tax rate equivalence such that the observed Pratt's Stat's 500 index valuation remains constant.

14 Please see our IPCPL webinar archive, FAQs and IPCPL paper at www.bvresources.com/IPCPL.

IPCPM has four adjustments and uses the colloquialism of “all other things equal.”¹⁵ Thus, for a given SPC:

1. All other things equal, higher *systematic risk*, as a share of total risk, impacts value negatively;
2. All other things equal, higher *unsystematic risk*, impacts value negatively;
3. All other things equal, higher *illiquidity* impacts value negatively; and
4. All other things equal, lower *debt borrowing capacity* impacts value negatively.

Based on our experience with SPC transactions, what we learned from the IPCPL data and IPCPL curve, and research of the relevant theory, we have developed the following IPCPM adjustments to IPCPL.

Systematic and Unsystematic Risk

Unfortunately, this is a subject of business valuation where continuing education is lacking. Indeed, based on our informal and anecdotal surveys, most appraisers believe that a beta of 1.5 means that the company’s stock is 50% more volatile than the stock market.¹⁶ In fact, beta (systematic risk) represents the *contribution* of risk to a diversified portfolio. An asset can have extreme volatility, but, if its price is not correlated with the stock market, its beta is zero.

So if the marginal hypothetical willing buyer is completely diversified with a net worth of \$60 million, he or she can pay \$2 million for a SPC and only care about the SPC correlation/contribution of risk (beta) to his or her portfolio. At the other end of the diversification spectrum, if the marginal hypothetical willing buyer has only \$2 million to buy the SPC and his or her entire

net worth is based on the single SPC volatility (total beta), then correlation is irrelevant to the marginal hypothetical willing buyer’s total asset risk, at least initially.

Moreover, the Morningstar industry risk premium, the most common method for adjusting for systematic risk, is unreliable in many cases. For example, these data frequently suggest a zero to negative adjustment for restaurants. McDonald’s has a beta of approximately 0.30 and Ruth’s Chris Steakhouse, an expensive dinner house that is far more sensitive to economic downturns, has a beta of nearly five times this amount—yet they both get the same Morningstar risk premium.

Unsystematic risk represents uncertainty of future cash flows that is uncorrelated with the economy and unique to the SPC. An example of unsystematic risk is where the existing SPC trucker restaurant is subject to two potential new highway routes that would either increase or decrease customer traffic flow by 50%. Unfortunately, many appraisers believe that the adjustment for unsystematic risk is for when we adjust the hypothetical highway to where the new route can only hurt customer traffic and the appraiser adjusts the unsystematic risk to account for both uncertainty and the cash flow numerator downside. But this is not how to account for risk.¹⁷

Market Clearing Price Beta

While some appraisers may have difficulty with some of these concepts, or what metrics may capture their impact, they know how to answer a well-crafted question that gets them to the same place. The IPCPM asks the pertinent questions and then adjusts the cost of capital (developed from the IPCPL) as appropriate—resulting in either a higher cost of capital (more risky company than average company of same revenue) or a lower cost of capital (less risky than average company of same revenue).

¹⁵ These are the four SPC K_V /non-numerator considerations recognized by Professor Damodaran.

¹⁶ In fact, a leading business appraisal resource describes beta this way. This actually represents total beta, not beta.

¹⁷ At the 2013 San Antonio ASA Advanced BV Conference, Pratt and Grabowski made a special effort to stress this point.

For example, for systematic risk, the IPCPM asks the appraiser to rank the risks facing the company, with the following simple questions/illustrations:

How correlated and sensitive is the business and future profits with the economy? For example, restaurants: expensive dinner house = high, McDonald's franchise = low. Aerospace: private jets = high, defense = low. If the average company is a 5 on our 0-to-10 scale, the expensive dinner house may receive a ranking of 8 and a very high implicit market clearing price beta. These selections naturally increase the discount rate and lower the value of the subject company, all else being equal.

For unsystematic risk, the IPCPM asks the appraiser to rank the risks facing the company, with the following simple questions/illustrations:

How uncertain is the cash flow forecast? If revenue and earnings history are highly variable and difficult to forecast, = high. If business has only one product with a highly uncertain future, = high. The opposite answers would result in low uncertainty.¹⁸

Liquidity and Debt Capacity

The liquidity of the SPC is a hotly debated topic. In our IPCPL webinar with BVR on Nov. 7, 2013, we polled the audience members on whether they discount a DCF control interest for illiquidity. The results: 59% applied an illiquidity discount to a 100% interest, and 41% did not. The pro-discount crowd has to divine the discount for a 100% interest in a small privately held business (unobservable) and divine and remove the illiquidity included in the SSP.

The no-discount crowd will begrudgingly admit that, all other things equal, more illiquidity equals less value and the SPC is not perfectly liquid. So apparently these people believe that

the liquidity issue for a 100% control interest in the SPC is handled in the SSP and/or CSRP. Many of the no-discount crowd believes that "since the seller has the cash flows while they wait for the sale, there is no discount." However, clearly, 100% of cash immediately is better than yield for a seller who wants his or her cash now; if he or she were indifferent to the cash now versus the yield, she would be indifferent to selling the SPC. Also, what if the business is losing money? This illustrates the problem with a rigid one-size-fits-all approach to the issue.

We know that it takes nearly a year on average to sell a SPC and, based on our IPCPL data and the above analysis of systematic and unsystematic risk pricing, there is strong evidence that the marginal investor in the SPC requires a substantial premium for illiquidity.¹⁹

Professor Damodaran has the following to say about the liquidity of the SPC:

When you buy a stock, bond, real asset or a business, you sometimes face buyer's remorse, where you want to reverse your decision and sell what you just bought. The cost of illiquidity is the cost of this remorse. In the case of publicly traded stock in a heavily traded company, this cost should be small. It will be larger for stock in a small, over-the counter stock and will *escalate for a private business, where there are relatively few potential buyers.*

One way of capturing the cost of illiquidity is through transactions costs, with less liquid assets bearing higher transactions costs (as a percent of asset value) than more liquid assets. The trading costs associated with buying and selling a private business can range from substantial to prohibitive, depending upon the size of the business, the composition of its assets

18 We estimate an equal weighting of the importance of systematic and unsystematic risk at the smaller sizes, consistent with a no-arbitrage view of increased systematic weight as size increases.

19 For an analysis of the varying illiquidity of the SPC, see Daniel L. McConaughy, Vicentiu Covrig, and Donald Bleich (2010) "Location and the Liquidity of Private Businesses." *Business Valuation Review*: Spring 2010, Vol. 29, No. 1, pp. 23-31.

Exhibit 5. SPC Market Clearing Price (FMV) Dynamic					
Market Micro Structure:		"Liquid" Market HWBs Intrinsic Value		Illiquid Market HWBs Intrinsic Value	
		909,091	25.0%		
Cash Flow	\$ 200,000	952,381	24.0%	1,052,632	22.0%
CF Growth	3.00%	1,000,000	23.0%	1,111,111	21.0%
"Liquid" Market Clearing Price (1)	\$ 1,428,571	1,052,632	22.0%	1,176,471	20.0%
10 Bidders		1,111,111	21.0%	1,250,000	19.0%
Illiquid Market Clearing Price	\$ 1,176,471	1,176,471	20.0%	AVG K _o	20.50%
4 Bidders		1,250,000	19.0%		
Illiquidity Discount	-18%	1,333,333	18.0%		
(1) Less Illiquid		1,428,571	17.0%		
Clearing Price (FMV)		1,538,462	16.0%		
Winning Bidder		AVG K _o	20.50%		

and its profitability. There are relatively few potential buyers and the search costs (associated with finding these buyers) will be high. In fact, if the investor buying it from you builds in a similar estimate of transactions cost she will face when she sells it, the value of the asset today should reflect the expected value of all future transactions cost to all future holders of the asset.

In conventional valuation, there is little scope for showing the effect of illiquidity. The cash flows are expected cash flows, the discount rate is usually reflective of the risk in the cash flows and the present value we obtain is the value for a liquid business. With publicly traded firms, we then use this value, making the implicit assumption that illiquidity is not a large enough problem to factor into valuation. In private company valuations, analysts have been less willing (with good reason) to make this assumption. The standard practice in many private company valuations is to apply an illiquidity discount to this value. But how large should this discount be and how can we best estimate it? This is a very difficult question to answer empirically because the discount in

private company valuations itself cannot be observed.²⁰

We emphasize this point Damodaran makes above: "(Illiquidity costs will) ... escalate for a private business, where there are relatively few potential buyers."

The SPC, due to the tendency of an owner-operator, is marketed predominantly in a local market. This makes for the number of market participants for the SPC to be extremely low compared to common stock securities of even microcap companies that are traded on an exchange where anyone in the world can invest or speculate with just a few shares.

Every local market participant for the SPC has his or her unique ("nonhomogeneous") risk and liquidity preferences. Therefore, the market clearing price of the SPC will be a positive function of the number of hypothetical willing buyers, all else equal.

²⁰ *Marketability and Value: Measuring the Illiquidity Discount*, Dr. Aswath Damodaran, Stern School of Business, July 2005.

Illiquidity, Intrinsic Value, and FMV: An Illustration of How ‘Thin’ Markets Work

In Exhibit 5, we show the SPC market clearing price (FMV) dynamic when the number of hypothetical willing buyers falls. The model assumes that each hypothetical willing buyer has the same cash flow estimation but that each has a unique minimum acceptable hurdle rate of return as compensation for his or her personal feeling about the risk and liquidity of the SPC (varying intrinsic value estimates).²¹

In a competitive market to purchase the SPC that spans nearly one year, the seller accepts the *best* bid, not the average bid. Therefore, slightly oversimplifying, the market clearing price (FMV) from *competitive* bids is conceptually based on the hypothetical willing buyer with the lowest minimum hurdle rate (highest intrinsic value) bidding just over the hypothetical willing buyer with the second highest intrinsic value. This market microstructure illustrates a flaw in the standard theoretical framework that many appraisers employ when appraising the SPC.²²

Debt Capacity

Capital structure theory is very complex. Worse, the accepted models that relate to this subject (e.g., the Hamada model and other derivatives) center around the valuation of the tax benefit related to the large C corporation double tax eliminated by debt interest. Based on our research, however, buyers of the typical SPC are other PTEs. Modigliani and Miller make a powerful proof that with no double C corp. tax under a “no-arbitrage” framework (that ignores

liquidity issues described above) that capital structure is irrelevant.

However, all other things equal, higher debt capacity lowers the amount of funds required from the marginal hypothetical willing buyer in the competitive market for the SPC described above. Since it adds to the number of market participants and adds a source of financing that intuitively has a lower price of liquidity, we estimate a significant advantage to higher debt financing capacity.

IPCPM starts with the IPCPL K_0 estimate and adjusts for intra same size outlier SPC differences.

Lenders are also generally well diversified and, therefore, have relatively predictable cash flow from loans and as a consequence have relatively low liquidity preferences compared to the owner operator with limited net worth and limited ability to predict future needs for liquid capital.

IPCPM in Practice

We developed a build-up method DCF and cap model with IPCPL and IPCPM running in the background. You can download it at www.biz-app-solutions.com. Here is how it works:

On the IPCPM tab, rate how your subject company compares on the spectrum for each of the four parameters described above, from 0 to 10. Then select whether you want to perform a DCF or a capitalization. Fill in the pertinent historical financial results and projection(s). Next, fill in the appropriate build-up inputs (see the purple cells).

The IPCPM will now compare your two calculations: the IPCPM conclusion and the build-up conclusion (or really any other method you may be using). If the two indications of value are within 10% of each other, then we believe this result has corroborated your conclusion using the (unreliable) build-up method, for example, and indicates your analysis is “OK.” If a discrepancy of more than 10% exists, it will alert the appraiser

21 In both markets, the average minimum hurdle rate is 20.50%

22 Many appraisers do not consider how thin the market is for their subject SPC. They inherently assume that intrinsic value is homogeneous across all hypothetical willing buyers.

that the build-up method results in either too low or too high an indication of value. Appraisers may then want to look at their assumption in the build-up model to determine whether something looks amiss.

The IPCPM will be updated monthly along with the IPCPL, essentially providing real-time cost of capital data.

Conclusion

We demonstrated above that, after peeling the onion, the build-up method uses critical arbitrary inputs and is inherently unreliable without reliable transaction data. We cannot stress too strongly that the issue is not whether IPCPL and IPCPM are perfect—they are not. Instead, the issue is whether they are a significant improvement over the build-up method. They are.

With our DCF build-up model with IPCPL/IPCPM running in the background, you get the benefit of this model as a reasonableness check with almost zero extra work. In summary, it's like having a cost of capital expert with you during your valuation engagement to help you through the many pitfalls of the build-up method.

Feedback wanted

The introduction of new methods and approaches to business valuation is essential to the development of the profession. Also, an open dialogue on new ideas should be encouraged to discuss new concepts. What is your opinion of the authors' IPCPM model? *BVU* received a great deal of feedback on the IPCPL method, so we look forward to your comments on IPCPM.

Email your thoughts, criticisms, and questions to the *BVU* editor at:
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HEALTHCARE

The BVR/AHLA Guide to Healthcare Valuation

Third Edition



Edited by:
Mark O. Dietrich



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The *Guide to Healthcare Valuation* is the premier resource for appraisers, attorneys, and healthcare administrators involved in any healthcare valuation. Edited by renowned healthcare valuation thought leader Mark Dietrich, CPA/ABV, this guide is an essential tool for understanding the complex relationships, changing legislation and other influencing factors as they relate to the value of healthcare practices and facilities.

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