

## CHAPTER 9

# **Don't Blame the Auditors (Blame the Practice Aid Instead)**

## **409A Valuation Professionals Discussing Topic 820 (FAS 157) with VC CFOs**

In preparation for this book, I held a conference with three valuation experts I know have focused almost exclusively on venture-backed company valuations and done so at difference firms. The goal of the conference was to give venture-fund CFOs and finance teams an idea of trends taking place with 409A as a result of Topic 718 audits, as those same audit firms would likely be applying some of the same requirements on Topic 820 related audit work they conducted when auditing venture funds.

I was surprised by several things that became clear immediately after the meeting. First, the venture-fund CFOs and finance teams, all of whom were extremely well versed in finance and especially well versed in VC transactions, felt like much of the conversation from the valuation experts was a foreign language. I anticipated there would be some points of disconnected terminology and experience but hoped to bridge that gap with real-world examples from venture-backed companies that went public. While there was great appreciation on both sides, the venture-fund finance teams generally felt it was too much technical information to take in given the time constraints. The next thing I realized was the degree to which auditors might, potentially, be influencing the value conclusions reached by otherwise unrelated valuation professionals. Each of the experts on the panel is clearly independent, but as the discussion proceeded, it became clear that the auditor “requests” or preferences for various approaches in these valuations might in some ways indirectly be placing the responsibility for the value conclusions reached on the auditors. This could have long-term implications,

not just with respect to valuations but also with respect to the independence of auditors, who are by definition not supposed to be making the value estimates, but rather testing them in accordance with GAAS and GAAP.

During the conference we also tried to highlight the IPO disclosures. However, it was hard for CFOs and finance teams to interpret the valuation speak while also looking at interactive PWERM models, OPM models, and illustrations demonstrating how the figures in the MD&A section started as many of the basic calculations we've reviewed in this book thus far. To improve upon that, I've broken the comments from the panelists, as well as my questions to those panelists, into sections here. After each major section, I present a relevant MD&A valuation disclosure along with some competing valuation inputs, where applicable, to emphasize the status quo in the valuation industry, the prevailing auditor recommendations, and the recommended deviations from those methods by me.

## **INTRODUCTION TO THE EXPERT PANELISTS**

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The first panelist you will hear from is Joe Orlando, AM, MBA, a venture-capital valuation expert with over 20 years of experience. In addition to being an accredited member of the American Society of Appraisers and participating on thousands of valuation, Joe was an investment banker, working on M&A and corporate finance.

Josh Cashman, JD, MBA, ASA, has been performing 409A valuations for venture-backed companies since the regulation first went into effect. Before that, he was regional VP and director of a national trust company, specializing in investment management and securities analysis. Josh is an accredited senior appraiser.

Jeff Faust, AVA, introduced in Chapter 8, has been performing valuations for high-growth ventures for more than 15 years.

LORENZO: Good morning, this is Lorenzo Carver from Liquid Scenarios and we're getting ready to start Topic 820 2/20—VC Fund YE 2010 Insights from Valuation Experts. We're very fortunate to have some bona fide valuation experts, each of whom has been known for some time now. Combined they have some 500 audited valuations of high-growth venture-backed companies behind them.

The techniques and insights that they'll be sharing today are directly applicable to every finance team of every venture-capital fund or private equity group for this year's upcoming audit.

So one of things we'll be doing is actually looking at companies that have gone public this year, since there have been so many that were venture

backed, looking at their disclosures, and trying to tie that back to how you can use the 409A valuation work that was done by experts like those that you're going to hear from today to better prepare yourself for your audits in the coming year and to better prepare the documentation for your funds on your portfolio companies.

I wanted to start by going through several items as we introduce the participants and put them into a context for valuing your portfolio in the new year and also going through some of the Liquid Scenarios models for those companies.

## **THE AUDITOR'S VALUATION "BIBLE"**

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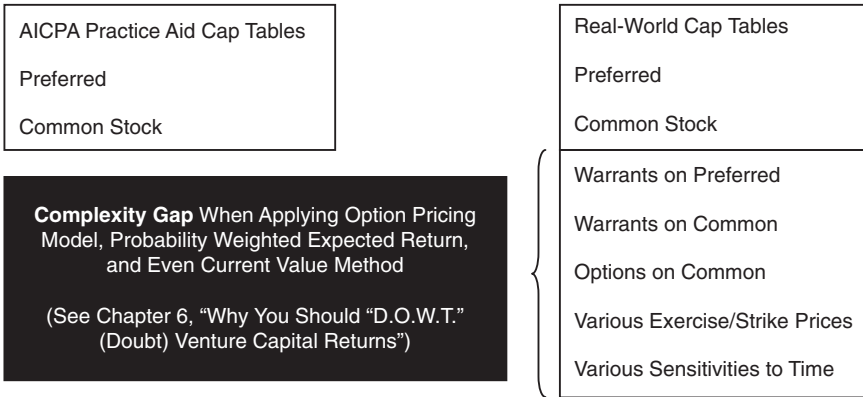
LORENZO: One of the most consistent references you'll see in the MD&A sections of registration statements for venture-funded company IPO is to the AICPA's Technical Practice Aid for Valuing Private Companies, officially titled *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*.

Joe, how heavily do auditors rely on this Practice Aid when reviewing your valuation work as part of an audit?

JOE: Sure, as a valuation expert we consider this Practice Aid to be sort of our bible in terms of methodologies not only in terms of valuing the enterprise but in terms of allocating the value. I think the biggest focus that auditors zero in on is the appropriate allocation methodology, in terms of allocating value in terms of what is most likely an option pricing model based on the stage of development of the company. The three allocation values that they look at, a current value approach and a probability weighted expected return [PWERM] certainly have their place, based on the stage of development of the companies. For the later-stage companies that are about to go public, the PWERM is appropriate, but most of the attention seems to be on the option pricing method (OPM) for early-stage companies.

I think the updated Practice Aid, which should be coming out for public consumption in the next month or so, goes through some more models in terms of some hybrid models and so forth.

LORENZO: Great. Jeff, could you follow through on Joe's point on how this Practice Aid has evolved over time? As I recall, when it first came out, it was so far from the way that actual venture-capital deals are done that some of the suggestions in it weren't applicable. But obviously it's improved a bit as auditors, venture-fund finance teams, and CFOs of the portfolio companies, along with valuation professionals such as yourself, have tried to work together to make it more relevant.



**EXHIBIT 9.1** On the Complexity Gap between the Practice Aid and the Real World of Venture-Capital Valuations  
*Source:* Liquid Scenarios, Inc.

JEFF: Sure, it’s interesting that while the Practice Aid has become the 409A bible as Joe points out, and I agree, but back when it first came out, 409A valuations were essentially box check reports for auditors. Auditors would ask, “Have you done one?” and then check a box. Also, a lot of the allocation methods presented in the Practice Aid are so simplistic that they didn’t apply, because none of the companies I’ve ever dealt with have cap tables that are that simple. So it was hard to apply those simplified models to companies that were always more complex. It was not used early on for complex models until the AICPA published more detail later on its interpretation of how to apply the option pricing method (OPM) in greater detail. This allowed analysts to engineer their models and programs much better. (See Exhibit 9.1.)

**SAS101 TESTS, PWERMS, AND OPMs**

LORENZO: Excellent. Josh, I’d like you to continue along those same lines, regarding the applicability, in terms of auditors reacting to the models you create versus the test models they create. Also, if you could, discuss how auditor perceptions of when it’s applicable to use the different allocation methods mentioned in the Practice Aid have changed over the past several years since the Practice Aid first came out.

JOSH: Sure, Lorenzo. Joe talked a little about the current value approach and the PWERM, but the OPM is typically what we’re finding most auditors

prefer, and I think the reason for that is that with fair value accounting, that's perceived to be the least subjective. So, most of the judgment is perceived to be taken away from the valuation analyst and there's a certain amount of auditor subjectivity that goes in, but a lot of that has to do with market data. In that way, I think the OPM is viewed as a variation of a market approach. So what we're looking at is the most recent round of financing and establishing the implied equity value of the company based on the capital structure of the company, so effectively a waterfall analysis. In cases where a current value method may be relevant, the Practice Aid is fairly clear as to when the current value approach is appropriate. That's simply looking at the traditional valuation approach, and that's what we did four or five years ago before we saw the OPM taking over.

I think, and I'll let Joe and Jeff correct me here, but I think it's less clear certainly in the Practice Aid when the PWERM is most relevant. I think we all know as practitioners that a probability-weighted expected return method is (and more recently we've also recently heard it called a "Power Method"), to me, less clear when they think it's appropriate. But to me the PWERM seems more like a real options approach. Like Joe said, we typically have requests for it by auditors when a company has engaged an underwriter for an exit, and to me in my view that seems pretty late along the line. So we see the current value method applicable where there haven't been any rounds of financing, where the company is underperforming, or hasn't been meeting its objectives and may not even continue as a going concern. Then you have this huge space in between where the option pricing model is appropriate. That's what auditors seem to want to see these days.

JEFF: Josh, if I could pipe in here, one of the things we've started to see in the last year ago or so, not for companies that are in the early stage because it's a waste of time and money, but we started running all three allocations for every company that got funding. My theory was that these methods need to jibe and work together, and the stage of the company should drive the allocation approach, but at what point should you be switching allocation? When we started running all three in tandem, we started noticing a significant relationship between the methods and we've made some hard stances because of that analysis as to when the company should be switching methods. The typical rule we arrived at was at stage Series A you just do a waterfall, as a company matures you do the option pricing method, and when you get close to an exit then you start incorporating the PWERM. When an actual transaction is imminent, then of course you do the actual waterfall for the liquidity event, so you more or less go full-circle back to the waterfall for fair value. So we'll try to do more quantitative and qualitative analysis on that to try to get more data behind our theory and how they relate.

JOE: Yes, I can chime in also. From the reports that I've seen, as a resource to our audit group at Frank Rimmerman, I've seen a lot of different uses of the PWERM, which Josh mentioned. I think the PWERM is appropriate when there is data for specific industries, life science in particular. I do think that some valuation firms are looking at the PWERM as a multiple or a return on invested capital, based on some proprietary data. In those cases it's an interesting application of the PWERM for very early-stage companies and even those that are maturing where an option pricing model may be used. I have seen what Jeff mentioned, using all three methods and reconciling those methods. There is a school of thought that says the PWERM should reconcile with the OPM in many respects, given what the PWERM's looking at in terms of specific scenarios versus the normal distribution of an option pricing model. But I do think that all of that information is a good reconciliation for a valuation expert to come up with a final conclusion.

JOSH: Lorenzo, just to beat this dead horse a little more, this is Josh Cashman again with Intrinsic. What we have been asked to do a few times is to do a variation on the PWERM and the OPM. This is in the space where the company is entertaining an exit but hasn't necessarily locked in a date or an underwriting. In cases like that you can run a variation on the IPO, acquisition, or OPM along with a PWERM.

LORENZO: Great, that's ton of information and a good place to link that to some of the fund managers, finance teams, and accounting teams on this call, because one of things we experienced early on, as I'm sure you are all aware of, is that auditors would focus on creating waterfalls manually and a lot of those waterfalls had errors in them. They just weren't accurate. When they were doing it with the valuation professionals, they were billing the client, but the valuation professional in a lot of those early cases had to eat the cost of showing the auditor how the auditors' test model was incorrect. However, it seems like now as things have become more sophisticated, we see a much higher quality of questions from the auditors and with that the auditor requirements for those valuations.

Part of the motivation for this conference was anticipating that some of the trends we've seen in 409A valuation audits might start to move over to venture-fund audits. So, for instance, last year (2009), most auditors when reviewing venture fund valuations of portfolio companies would pretty much ask for just a waterfall, or current method analysis, for most portfolio companies. The exceptions tended to be ones that were more sensitive, in which cases they might dig into whether a PWERM or comps would be more appropriate. Going forward, it appears that the standard may be increasing, so the documentation and the use of multiple methods may start to get more substantial.

So, based on that, one of the comments you made earlier, Joe, was with respect to life-science, or biotech companies, for instance, and how you've seen the PWERM used there. Is that accurate?

## **PWERMS AND rNPV/eNPV MODELS**

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JOE: Yes, I think that industry lends itself given the phase of development and defined growth periods based on FDA approval. There's a lot more data out there about probability and success.

LORENZO: Right. This is why even the terminology in calling it the PWERM is kind of interesting. Are any of you familiar with the expected net present value method (eNPV) also known as the risk-adjusted net present value method (rNPV)? Because it's pretty similar to the PWERM. You see it used a lot for life science and biotech companies a lot, and looks a lot like the PWERM where they apply a probability for each phase, so pre-clinical, Phase 1, Phase 2, Phase 3, and then assign a probability and adjust the expected cash flows based on the reduced risk as the company moves from one stage to another.

JOE: Yes, I've definitely seen that before. You're absolutely right—it [rNPV] does lend itself toward that fundamental methodology of probability weighting some expected scenarios.

LORENZO: But the difference appears to be that in the biotech space when they apply a probability, like you said the risks are kind of defined because there's a large population where they can say this is the percentage of leads, candidates, or new drugs that apply at this stage and this is how many get through. So, based on a large sample size, this is the probability that a new drug candidate will get to the next stage. That compares to one of the criticisms of the PWERM that I'd like all of you to perhaps give your opinion on, which is that it tends to be more subjective. I realize there are techniques that valuation professionals use to attempt to quantify the probabilities that are assigned if possible, but even the Practice Aid suggested that these are target returns that should be used by stage. Similarly, other people have suggested these are guideline probabilities that might be assigned by the venture-backed company stage in a given industry. Perhaps each of you could speak to how you address subjectivity when using a PWERM in your valuations.

## **SUBJECTIVITY AND THE PWERM (OR "POWER") METHOD**

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Management teams, VCs, and even valuation professionals appear to prefer creating PWERMS in part because they allow the opinions of management

to come through in the form of a model of various scenarios. For this reason, some have started to refer to the method as the “Power” method. But this may be fading, as auditors have begun to rely on models that backsolve for the PWERM values in an attempt to objectively measure the reasonableness of probabilities and weightings. The discussion that follows reflects the experience of the valuation professionals we interviewed in this regard.

JEFF: Typically, what we do is we work with clients pretty significantly in terms of what sort of opportunity they have at present, what’s going on in their space, what sort of acquisitions are going on. That helps us support the probability of certain events. The same thing applies to IPOs: If they’re in a space that hasn’t had any IPOs for a while, that could limit their probabilities if the time horizon is shorter, but it depends on how far out they go. It’s not only your probability of a specific event, but at what time frame. You could be 10% probability of an IPO, but that could be five years from now and that could keep your values down.

Again, when we started running all three allocations and shifting from an option pricing method, we have to make sure the PWERM is not coming with a lower value than the option pricing method from a prior year in some cases. So proper weighting of the probabilities should help to take care of that. We have to be careful, because a lot of times entrepreneurs are optimistic and will in cases give you the optimistic hope of an IPO timeline for the PWERM. But that’s not what we want to use, because putting 40% probability on an IPO for an early-stage company would of course spike the price per share you arrive at. We have to be realistic because as a company starts moving from one stage of development to another, we are remeasuring how far away it is from an acquisition. We typically work very specifically with clients when working with their models, trying to identify when certain exit events will occur.

JOE: Coming from the audit side, which Jeff comes from as well, it’s not something that’s defined in Webster’s as auditable, but certainly the PWERM has audit risk in terms of the subjectivity you mentioned. The only time we would have more objective measurements would be, like you said, in cases of the life sciences or drug companies. I think the PWERM is really two numbers, taking an outcome and then assigning a probability to that outcome. Both of those generally have very subjective components to them, and I think the valuation expert’s job is to get an understanding from the client and to get as defensible a position as possible for those inputs, making sure that methodology is as sound as possible.

JEFF: I wanted to comment on how many people in companies don’t value the 409A valuation—they think it’s a commodity or a box check where they have to pay this price and that’s it. Really, I think companies need to start changing attitudes on that. The 409A valuation can give significant



insights into capital structures, waterfalls, and possible exits for the company. Companies should understand that not only is all of that valuable information but, as Lorenzo alluded to earlier, these methods are going to start working themselves over to the other side of the valuation for VC funds. So when venture funds are dealing with their auditors, they're going to have to start understanding these methodologies, which is of course a good reason for those funds to start paying a lot more attention to the 409A analysis. There's a lot of great information in there's that I think both the companies can use and the VC firms can use as well.

## **FINDING INPUTS FOR THE OPM MODEL**

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LORENZO: Maybe that's a good place to start moving into some of the sample companies that we have, so for instance, in the 409A valuation reports, you will notice that there are a number of methods used and the MD&A section of a registration statement will show how an appraiser applied a weighting to each of them. So one of the things we've talked to different venture funds about is how they can use some of those variables to create their own models. Even if they're not going to use that model as an input they present to the auditor, but rather simply for running an alternative OPM analysis, they might go to the 409A valuation report and see what would happen if they use the volatility estimate the analyst used. We've suggested that they can go to the 409A valuation and perhaps have a record of how one version of comps were arrived at or how the risk-free rate was matched to a given time horizon, or the marketability discount was applied to the common stock. So perhaps we could talk through how a venture fund might repurpose a couple of those variables for a quick comparison to its own models and the process each of you goes through when you select those variables. The hope is that some of the venture-fund CFOs and finance teams on the line can use those resources from reports they've already paid for to populate some of their models.

As an example, Josh, could you share with the CFOs how you go about finding an appropriate risk-free rate to use for an OPM analysis?

JOSH: What I'm typically looking at, depending on how far out we're going—in other words, in an option-pricing method, I can either use the Black-Scholes method or the binomial option pricing model. Typically, I use Black-Scholes, in which case one of the variables is theta, or time to expiration. Time to expiration in these models is generally the point in time that you expect an exit, and I'm usually looking at a three- to five-year window, but certainly nothing in excess of five years. But I'm also interesting in learning what Joe and Jeff use in terms of their theta (time) in their

option-pricing models. But what happens if you go too far out in time is that the value of those options increases, which is kind of the inverse of what you'd anticipate because in a privately held company where you're holding that company for a longer period of time, in fact the value of those securities would decrease. Because without the liquidity or marketability, having to hold onto those securities longer would have an inverse effect of what a Black-Scholes model would imply. So what I'm normally looking at is the time to expiration.

So if it's a three-year time period, I'm looking at three-year Treasuries for my risk-free rate. Typically in finance, you're looking at a 10-year Treasury as the risk-free rate. But again, in the Practice Aid there's this suggestion that you're using consistent time periods both looking backwards and forward. For instance, vega, or volatility, another one of the variables in the option pricing model, is based on the time to expiration. So if you are looking out three years, we calculate volatility by looking back three years. Again, all of that is meant to be as consistent as possible.

JOE: I would confirm that relative to matching the risk-free rate to the term that's used [if it's a three-year time period, for instance, a three-year treasury will be used]. I think, like Josh said, the issue with the option-pricing model is the higher the term, the greater the value of the option. I think that really flows into the normal distribution in terms of the basis for the Black-Scholes methodology.

To deal with the term, what we will do if the company is expected to remain private for a long period of time is to look at the different expected scenarios for a company and apply a probability to each of those. Weighting the time periods from those scenarios using the same probabilities, we can arrive at a probability-weighted term.

## **ENTERPRISE VALUES VERSUS ALLOCATIONS**

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LORENZO: Great. So I guess it would be helpful for some of the venture-fund CFOs and finance teams to get an understanding of how you come up with an enterprise value versus an allocation and how those act as a test for each other. I think it sometimes gets confusing even for people when they're practicing, having a discussion, or just digesting a valuation report that they've received in terms of understanding the difference between how you allocated the value versus what the enterprise value conclusion is. It can get even more difficult in certain circumstances when you're using the allocation to confirm what you came up with for the enterprise value. Does that question make sense?

JOSH: I think it's an interesting question, and I think it's something we've all talked about. I know Joe and I are part of the Fair Value Forum and I know it's been up there before. I think traditionally in finance, equity value has been based on enterprise value. So I think all of our calculations are first targeting the enterprise value and thereafter distilling in the equity value, and thereafter for these types of companies establishing the common stock value based on the capital structure. Those are the steps, and I think those steps are based on principles of finance established by Modigliani and Miller. Those are the steps involved in each of our valuation approaches.

JOE: Yes, I agree with Josh. I think what you're talking about, Lorenzo, is the backsolve of the enterprise value from the recent equity round of financing and basically going from the bottom up to the enterprise value and then allocating back down using the option pricing model to get the value of the common stock. I agree, it's a rub sometimes for CEOs who have done a very good job of negotiating terms for a VC round of financing where there's no participation and the pre-money value of the company is very high. But what happens is the value of the common stock is a reflection of those negotiations, so the value of the common stock is actually higher than what they would normally see or normally want.

JEFF: Despite popular belief, 10% of preferred is not always the value of the common stock, even in the early stage. That's a great point by Joe, since the non-participation causes common to be worth more earlier than you would want, especially in the earlier stage.

LORENZO: I'd like you all to expound on that a little to tailor it to the cases of the venture funds. In the case of the venture funds, pre-money or post-money value isn't that reflective of the most recent round of financing in a lot of cases, because of the way that it's expressed versus the definition. In a lot of cases, like you've said, when the founders say this is the pre- or post-money value of the company and compare that to the common stock value you arrive at, they just multiply that by the fully diluted shares and get confused or even upset because the number they arrive at is lower than their perceived value of the company. Is that essentially what you guys are saying?

JOE: Yes, exactly. I think if you were to look at it very simplistically, pre- and post-money would assume that the value of the common and the preferred are equal, and we know that's not correct based on the rights and the preferences of the preferred over the common. So you're right. If you were to go to the extreme, the opposite direction, and based on an option-pricing model, and multiply the value of the common by the number of fully diluted shares, you'd be saying the value of the preferences associated with the preferred stock are worth nothing. So the answer is somewhere in between, and the hard part is really reconciling with the CEOs, the CFOs,

and the board members how our value of equity from an enterprise value is different from the pre- and post-money.

JEFF: Let's also be clear, too, and I get kind of frustrated about this when I get auditors who are focused on a particular close or round when it's strategic—that's not fair market value. 409A is clear that our job is to establish fair market value. When these rounds are closed, I question whether these are fair value because a lot of times when VCs invest in these companies, they are paying an intrinsic value, or attempting to peg what it could potentially be worth in the future. So the pricing for these rounds is essentially backed into often. If I'm putting in 2 million and getting 25% of the company, then all of a sudden the company's worth \$8MM? But that doesn't necessarily mean that's fair market value. So when you run allocations on the pre of \$8MM or the post \$10MM, you already may know that there's no way that \$8MM or \$10MM is fair value and therein lies some of the frustration.

JOE: Coming from the audit side, when we see a fact patten like that, from a creation perspective we'll make sure we reconcile with a discounted cash flow approach. From an audit perspective, we'll make sure to ask the valuation expert what he's done to reconcile that value and whether there are some strategic inputs that went into the pricing of the round. In fair value parlance, it's a level two input, not a level one input, so you're not really looking at the sale value of common, you're looking at the implied value of common based on the sale of preferred. But you certainly want to incorporate that data point, regardless of whether it's strategic, and make sure that you reconcile.

## **NEXT ROUND PRICING AND TOPIC 820**

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LORENZO: Directly in the context of what we are talking about today, most of the venture funds are faced with supporting the values they have for preferred stock. As you've mentioned, that's often opposite of some of the issues that are at play when valuing the common, although in theory all of these approaches should fit together with some consistency. One of the reasons I believe they don't tend to fit together is because different parties tend to count the shares differently.

So, for instance, if the company is doing an IPO, then the underwriters generally consider (or deem) only shares that are actually outstanding as issued when they arrive at a capitalization for the company. This is the opposite of how the pre-/post-money capitalization is being arrived at for purposes of a venture-capital investment round, then of course it's fully diluted and you're counting as many shares as possible. To just apply a market cap

approach, where you say price per share times number of fully diluted shares equals enterprise value, you know right off the bat that the implied enterprise value will be overstated at least by the amount of the reserved options pool, especially if it's a seed or very early-stage company. However, down the road, as the company gets closer to an exit, the post-money values and enterprise values start to become closer, but even then there's a difference between that and the implied pre-money market capitalization since both granted and unissued reserve shares will be excluded from the IPO calculation.

Do any of you have comments or insights on that?

JOSH: There's no doubt that when you're looking at the traditional post-money capitalization on a VC financing round, you're looking at all issued shares and all authorized options, whereas in our calculations we're not necessarily looking at all authorized options. Though those options may represent earmarked common stock to be issued in the future, they are not outstanding as of the issue date, so in our calculations we're looking at all outstanding options. That's an area I've heard some disparity or some disagreement on that subject.

JOE: Yeah, the only other issue that I'd bring up is to make sure that if you're going to use that method (of including the options), that you are taking into account the cash that's going to be generated from the exercise of those options. We tend to use the treasury method when we're looking at the options and allocating and just making sure that we don't need to skew the cash generated by the exercises by using the treasury method to get to a net option count.

LORENZO: That's also an issue we've seen for venture-fund fair value calculations [Topic 820 (FAS 157)] and also the 409A valuation side, which is where a company has a cap table and so much of the pool is reserved. So regarding the timing of the exit, Joe and Josh, you mentioned going out three to five years for the variables in the OPM models. Do you adjust the capital structure based on the valuation date of shares outstanding or the expected capital structure three to five years from the valuation date?

JOSH: That's an interesting point, Lorenzo, and I'm sure there may be cases where (and maybe this is something where Jeff brought up earlier) a VC's initial investment in a company is not likely to be its only investment in a company. That investor may participate in additional rounds of financing over the course of a number of years, in which case the capital structure of the company would change, and that would be a way of capturing any adjustment based on fair market for the foreseeable future. That's a fairly rigorous study, but it's something that can be done, and it's certainly something anyone on this call who's a valuation professional has had to do, to capture the fact that a VC is not necessarily going to make one investment in a company, but rather that VCs are setting the stage to make a series of investments.

JEFF: I've been told by auditors, especially when looking at cash flow, that we can't take into consideration cash coming in from future rounds or cap structure, so it's an interesting discussion, but we typically don't try to factor that in.

But, Lorenzo, you bring up an interesting issue. My personal thought is that in the option pricing method, the pricing term should try to estimate when and how long the company can go until the next round. I know the prevailing practice is to measure until the assumed exit, but really, if you're close enough to see an exit, you should be using a PWERM. So my opinion is that the option pricing method's term should be until the next round so that you're taking into consideration the capital structure, since I know the company's not going to make it unless it gets another round. So why are we estimating exits in that specific cap structure? Now, it's hard to estimate what the possible future capital structure will look like, but I think we need to be looking at shorter pricing (OPM) terms to take that into consideration.

JOE: Yes, but I think the difficulty in modeling that out has led us not to include future rounds in the allocation using the option pricing model. But we have looked at technology to more easily model those future financing scenarios and incorporate them reasonably into our models. Because otherwise, as Josh mentioned, figuring out what's the potential future pricing for those rounds, their terms, the size, how the cash will be used, and so forth is a tedious and time-consuming task. So I think the biggest thing you want to look at in terms of coming to a conclusion of value is what the least wrong number is.

## **DIFFERENT WAYS OF TREATING GRANTED, UNVESTED, AND RESERVED OPTIONS**

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LORENZO: One of the other questions that's come up that we've actually seen with venture funds, especially for larger holdings that they have, provides us with a great opportunity to reconcile what the venture funds might see on a 409A valuation versus what they encounter with their auditors, with respect to a waterfall. This has to do with the dilutive impact of future option grants on the value of the preferred. That tends to have not as much to do with additional rounds of financing, but simply relates to the passage of time. In most years when I've looked at auditor comments, I've noticed they are not taking in to account future grants of stock options. Is that consistent with what you've seen recently?

JEFF: For the most part, yes, that's true. But in some cases, particularly recently, I've seen times when auditors have insisted that the future grants be

taken into consideration, particularly when it's anticipated that a large number of grants will be happening after the round currently being negotiated.

JOE: Yeah, and I've had that question before, and we look at it as a sensitivity analysis. So we'll look at the outstanding option pool, and we will initially not take it into account. But if we are asked to look at it and allocate those future grants, we'll assume that it's iterative and that all the options get priced at the final conclusion of value for the common stock in our analysis.

LORENZO: That's great to know, because we see a different between how auditors approach for purposes of 409A and how they approach it for venture funds. It has seemed to not be applied consistently.

So, we've pulled out some of the MD&A notes from some of the filings of venture-backed companies that went public in 2010, and I thought we'd go through those terms with you valuation experts so some of the fund CFOs can get more familiar with some of the terms that are being used with respect to fair value and how that terminology has evolved.

Two related terms you see a lot in the MD&A sections are claims on the company's assets and allocation. So, allocation between debt and other equity classes, I believe that used to be referred to in the context of the OPM as a contingent claims mode. Do you recall that?

JOE: I'm not sure what the previous terminology was, but I think there was initially a huge discussion among the Big 4 as to whether debt should be used as the first breakpoint of an option pricing analysis in terms of that contingency because there was a thought that the allocation using the option pricing model in this context should start with an equity value versus a capital value. But that would assume that the value of the debt was equal to its face value, whereas when you run the OPM analysis, it's possible that the value of the debt can be less. Josh and Jeff, have you seen that evolve over time as well?

JEFF: I have, but you know my preference is to go from enterprise value down to equity, taking out the debt, and then running that through the model. But you're right, it does raise an issue I asked one of my analysts the other day about whether we think this debt is worth what it's being shown at to allow us to make that comment. But that's something that I think is interesting to analyze as certain liquidity issues come up with companies where maybe the value of debt is not its face value dollar for dollar. We don't do that now but we are doing it now.

JOE: That's one of the biggest comments we get: If you use debt as the first breakpoint, you will always get a value of debt that's lower than the face value based on a normal distribution that assumes a value of zero as the starting point in the lowest extreme. We've been asked whether our allocation methodology using an option pricing scheme is in fact deriving

a fair market value for the debt, and I think that's a big topic that's being discussed at the AICPA relative to this update of the Practice Aid.

JOSH: Well there have been times where we've had just round after round of convertible debt into a future round that hasn't been issued. Have you seen that before?

JOE: Definitely. We've seen debt used as that first breakpoint, and we use it as our first breakpoint because we assume there's a possibility it can go to zero. That's why we have a dissolution scenario in there and value the debt as at risk if a dissolution scenario occurs. Granted, they have the first right, but that's why they're the first breakpoint.

JEFF: I think the characteristics of the debt will drive some of that also. Are they convertible, are they event convertible, are they convertible based upon a vote of all the other equity holders? There are a lot of variations to the debt. You have to be aware of them and make decisions that are appropriate to each in your model.

## **VALUING WARRANTS IN VENTURE-BACKED COMPANIES**

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LORENZO: Yes, that's something we saw a lot of in late 2008 and early 2009. There were a lot of convertible notes issued in response to the financial crisis. A lot of those convertible notes had multiple liquidation preferences on them. Instead of having a 1X liquidation preference, which ordinary debt generally has, these issues could have a 2X or even a 4X liquidation preference. So when you do a Black-Scholes on it, you actually end up with an indicated value for the debt that's higher than its fair value, because of the optionality.

JOE: Right, and that doesn't take into account the value of the warrants that they were issued as well.

LORENZO: Yes, and that's right because another issue that comes up is the valuation of the warrants. A lot of these deals have warrants, so you can allocate some of the equity value to the warrants using the option pricing method, but then you still have to adjust that value based on the expected life of the warrants, or the contract life of the warrants. One of the things we see is that sometimes there's a difference in how you account for the warrants if the underlying stock is redeemable preferred versus preferred stock that's not redeemable. Have any of you come across that at all?

JOE: We've come across some warrants that have a put feature, but usually when we see a warrant it's simply a straight. I've actually done the valuation of a warrant portfolio for a large bank, and we've seen the vast majority of those [warrants] on preferred but also some on common. It's a



creative instrument for the banks, but depends on whether they want more warrant coverage or greater liquidation preference.

JOSH: I haven't seen that relationship between warrants and redeemable preferred, but we have seen the anti-dilution provisions that have to be measured on redeemable preferred as a contingent liability. But we haven't seen an impact on the redeemable preferred and the warrants.

LORENZO: I asked because we see instances where a portfolio company has to have an outside valuation professional calculate the fair value of the warrants on redeemable preferred to arrive at a discount, because of the account accounting rules around beneficial conversion features. The accounting rules sometimes require that if the preferred is redeemable, you have to book the warrants as interest expense. So to do so, you have to first come up with the fair value first. Have any of you been involved in those engagements?

JOE: We have not been engaged to come up with the interest, but we have been asked to value the underlying preferred so that the company can do its own valuation using Black-Scholes for that exact reason. So we don't really value the warrants, we give them a value for the underlying [security] so they have the tools to value the warrants.

LORENZO: One of the other reasons that I asked is because I'm wondering if that's going to impact the way that the funds are required to value their warrants. In certain circumstances, you'll see the value of the common stock used to extrapolate the value of a preferred warrant, and in other cases we've seen where the warrants aren't included at all because when they're issued with the preferred, there's the question of how much value goes to the preferred that I purchased and how much value, if any, goes to the warrants I received for leading the round. So you can see how that becomes its own allocation exercise.

## **QUANTIFYING QUALITATIVE INPUTS TO VALUE CONCLUSIONS FOR VC-FUNDED COMPANIES**

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LORENZO: One of the items that I thought would be worth reviewing are some of the less quantifiable disclosures we see regarding how people value these companies: for instance, important developments regarding the company's line of business, the company's stage of development, how the company meets any financial milestones, where a company is compared to its business strategy, and how complete its management team is. Can you go over, perhaps at a high level, how you incorporate some of these factors into your conclusions and how they relate to any quantifiable inputs into the models or enterprise values that you arrive at?

JEFF: What we typically do in those situations is try to assess what stage the company is in. The practice guide outlines six stages of development for a startup and addresses things like each of those aspects you've mentioned. Each of those aspects helps identify what stage a company is in and then corresponds to which allocation method is appropriate.

So if it's in the middle stage, it might have made some progress on its business model, not have the management team completely built but hired a few key roles. It could be generating some revenue but isn't profitable. Each of those things would suggest to me that this company is a middle stage company, so I would argue that using anything other than an option pricing method in that case would be hard to argue, especially if the company has closed a recent round. So I think each of those characteristics helps me determine which stage a company is in.

JOSH: Yes, I'd agree with Jeff. The six stages that are outlined in the Practice Aid help us map a correlation to the level of the enterprise, whether it's seed or early stage, first stage, and so forth. So we're able to integrate that into our income model in our discounted cash flow model to an appropriate discount rate based on VC hurdle rates. The various stages of development are a big part of how we go about selecting an appropriate discount rate and aligning it as closely as we can.

JOE: I agree with both Jeff and Josh. We certainly do look at it in terms of the stage of development. Where a company is in the development stage has a large influence on what allocation method we use. We certainly take into account those risks and opportunities, which are the less quantifiable lists that you mentioned as our adjustment to the discount rate in terms of the company's specific risk premium. But we also take these less quantifiable inputs and work them into our probabilities used for a probability-weighted return, the probability of an exit scenario, or determining the term of the option pricing model.

## **DISCOUNTS FOR LACK OF MARKETABILITY (DLOM) AND VENTURE-FUND PORTFOLIOS**

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LORENZO: The other area that we suspect might become more important for venture-capital funds going forward is the various discounts applied for lack of liquidity, lack of marketability, or lack of control that you see applied in traditional valuations of private company securities. In the case of your valuations of common stock for venture-capital-financed companies, you always apply a discount for lack of marketability to the common stock. On the other hand, there's of course a prevailing theory that such discounts are incorporated into the price of the preferred already, since a knowledgeable

party made the purchase fully aware of the relatively illiquid security he or she was buying. I think it would be helpful if each of you could walk the venture-fund CFOs and finance teams, at a high level, through what goes into the discount for lack of marketability and how you might envision some of the venture funds or private equity funds applying that to various securities that they encounter in their valuation efforts.

JOE: I think we could probably spend a full day talking about discounts for a lack of marketability. It's the one single topic in valuation where you see a passionate disagreement in terms of how you look at it, how you calculate it. I think the best way that we look at marketability when it comes to a round of financing is that we would assume that the preferred round is marketable and that common by definition has a semi-marketable component to it if you arrive at an enterprise value that backsolves using the last round of preferred. Because there's a market component of willing buyer and willing seller for that last round of financing, we're assuming that the preferred is marketable. A lot of this discount for lack of marketability in terms of what you use and how you use it is really based on the starting point for the enterprise value.

If I do a discounted cash flow analysis as my starting point for my option pricing model, I'm assuming that has a minority component to it but that it's a marketable minority value. If I apply a market approach, using guideline public companies, because I'm starting using minority value in terms of per share value, from which a market capitalization was arrived at, I'm also assuming a marketable minority value. But if I use transaction analysis, there's a control component in there, so I'd assume the value I'm getting for the enterprise from the transaction analysis is the control marketable value. When I apply my discounts, I have to take into account both the discount for lack of control as well as the discount for a lack of marketability. So I think the starting point for the enterprise value is really the jumping off point for the discussion of discounts for lack of marketability.

Do you agree with that, Josh and Jeff?

JOSH: Absolutely. But first let me say that I'm glad that you had to answer that question first, Joe. I've seen a lot of work done on this particular area, including work done by Joe, and a lot has changed just over the last several years. If we looked at fair market value just a few years ago, fair market value discounts for lack of marketability were in that context in the tax realm; they were based on empirical studies. You would use databases that had restricted stock studies or others comparing restricted stock purchases of publicly traded companies to prices paid for their publicly traded counterparts, or pre-IPO studies that looked at transactions in shares of companies that were about to go public and evaluated the impact that had on the marketability of their shares. More recently in the context of fair

value, and I think what's generally promoted these days, also in the context of fair market value or tax, are quantitative studies. Quantitative studies look at a protective put, or similar methods that rely more on calculations. I think that over the next few years we're going to see even more developments in terms of applying real discounts for lack of marketability based on the secondary market for restricted stock. We're seeing different venues such as auction sites where restricted stock in privately held companies can be sold, and it'll be interesting to see what discounts are implied by those transactions as well.

So the discount for lack of marketability is something that's evolving. I think it's something that we're all getting a lot of guidance on and, like I've said, Joe's done a lot of work in this area, and it's a space where there's still a lot of work to be done. This includes further understanding both the discount for lack of marketability and the discount for lack of liquidity.

They are, at least theoretically, discrete. But, Joe, I'd be interested, I know this is something you've talked about before, if you wouldn't mind elaborating on the relationship you generally see in terms of what you've been asked by most auditors as the maximum discount on common as it relates to the most recent round of preferred, when applying a discount for lack of marketability. I know you've talked about that before, but just talk about the relationship between common, the price for common, the price for preferred in the most recent round of financing.

JOE: Yes, I think the most conservative approach in terms of a discount for the lack of marketability when you're solving for the last round of preferred is to assume that the preferred has some kind of market component to it so it's a semi-marketable enterprise value being derived. So what we'd do in that case is take an incremental discount for lack of marketability based on what we think the implied discount for lack of marketability built into the preferred round is, less what we think the total lack for discount of marketability is. So, for example, if the last round of financing were priced and we thought there was a 15% lack of marketability built into that pricing, that implies the buyer was making the purchase assuming there was some kind of discount associated with that. In that case, the incremental discount for lack of marketability on the common may be 5% because the total discount for lack of marketability was 20%, but 15% of that was thought to be allocable to the preferred. We believe that considering an incremental discount for lack of marketability attributable to the common versus the preferred is a conservative approach. I think that there are situations where you can push for a discount for lack of marketability that's higher than that, and that subjective component is based on the rights and preferences of the preferred compared to the common. So, if I have a preferred that's a non-participating preferred that in many ways except for the liquidation

preference looks like common and has a high probability of being converted to common because it's a later stage company, that discount for lack of marketability for the preferred may be very similar to the discount for lack of marketability attributable to the common. It all depends on those rights and preferences associated with the preferred at the last round financing and what the implied discount for lack of marketability is for that preferred.

**JEFF:** Great. I got off free for both of those. I don't want to go too much further into it because I think you guys did a great job. But I did want to quickly add that I personally think that discount for lack of liquidity is not the same as the discount for a lack of marketability; I think they're drastically two different things. While each one of them can have a little bit of a component of the other, I think they are completely different and they should be applied carefully and you have to make sure that you are applying it to the right asset. I wouldn't just blindly apply a discount for lack of liquidity unless I know that that asset has liquidity issues versus marketability issues.

**JOE:** Yes, and I think that's a very good point because the discount for lack of liquidity is really more in terms of a tax realm, where gaining liquidity is expected to have some costs associated with it in terms of realizing proceeds. That's certainly not the same basis by which determining fair value looks at marketability.

**LORENZO:** In a practical context then, it sounds like in most cases anyway there's not a strong argument in a lot of these cases for applying a discount for lack of control to any of the preferred stock in your opinions. I know it's hard to make generalizations, but is that a fair assumption?

**JOE:** Well, it depends on what percentage ownership the last round has and whether that has a control component to it. If it does, then you may want to look at a discount for a lack of control relative to the other securities. But normally we don't see that, so when we look at a marketability discount, we're assuming that control is taken into account at the starting point of the enterprise value. Most likely we'll use a discounted cash flow method or a guideline public company approach, which assume a minority ownership to start with. If you're backsolving for a round of preferred that has a minority component associated with it, you're going to get a minority value as well. So usually that control is taken out of the equation based on the methodology that's used. But like I said, if we used a transactions approach, which we do when we value a winery, for instance, where there's good data that looks at actual transactions, we'll take a discount for lack of control before we take a discount for lack of marketability.

**JEFF:** I think that's the key point here; there are a lot of discounts floating around here, a lot of issues that we're discussing. The key thing is that you don't apply them in all situations. Every method shouldn't have a

discount for lack of marketability or a discount for lack of control, because as Joe alluded to, there are times when you're comparing it to control transactions. The key is to make sure you are consistent with the enterprise value assumptions and apply the appropriate discount for that situation.

## **SHARESPOST, SECONDMARKET AS MARKET INPUTS**

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LORENZO: Josh, one of the other items that you had mentioned was regarding secondary sales. As you've pointed out, these have become more popular, especially for some of the Internet and social media companies, and it's starting to expand to other types of companies as well through some of the marketplaces like SecondMarket or Sharespost, for instance. In addition to that, we've also seen, because of the long road to liquidity during the first decade of this century, more stock repurchases, where you have a stock repurchase financed by a venture fund. So essentially a venture fund comes in and buys Series D stock, for instance, and then the company will use some of those proceeds to repurchase common stock from people who have left the company or people who have been there for a certain period of time. Obviously, those transactions have multiple implications with respect to the value of the common stock and also with respect to the value of the preferred stock to a certain degree. I was wondering if any of you would like to comment on those as separate pieces. First, looking at secondary transactions in some of these marketplaces where parties, not necessarily in coordination with the company, buy and sell shares of a venture-funded company. How would that impact your valuation analysis, if at all, today?

JEFF: I'll take this one since you guys hit the last one. I take into consideration all transactions. I get calls all the time asking, "What happens if we have a sale out here, are you going to take that into consideration? How much is that going to impact the value?" My general answer is that I am absolutely going to take it into consideration and it really depends on the details as to how it might impact the value. I think you have to look at the details of some of these transactions and the block of stock we're looking at. So in the example you've presented, in that situation you have a lot of people being able to buy stock or being able to sell stock and I think that's a pretty good indication of value. I think it's important for you to look at those blocks of shares. I had a client disclose a transaction to me, and I said I would probably weight that a pretty good amount of the transaction. The client tried to argue his way out of putting weight on it because it was significantly higher than what we were coming up with on a separate standalone basis. The more he talked, the worse it got, as we came to find out it was

more than one transaction but a very large purchaser buying shares from lots of shareholders. Then we discovered it wasn't just a onetime transaction, but that those sales had taken place throughout the year, so I ended up putting 100% weighting on those transactions. Since these were significant investors, very well informed about what was going on, paying this price, versus the company's argument that these were a bunch of rich guys that didn't know what they were paying. My position was, I don't think so. People don't generally get rich in this space by making poor decisions around valuation. They must know something. So I do think these transactions are very important, although I'm a little concerned about what these marketplaces are going to do to private company price per shares and how are they going to be paralleling the 409A. As I said before, I think people consider 409A as too much of a commodity, whereas there's a lot of value in those analyses that should be taken into consideration when people go to the secondary markets. Otherwise, you can end up with a big problem down the road, a big disconnect.

JOSH: You know, I think this is a fascinating area. It's one that's just now growing up and I'm not sure we fully understand it, and by "we" I mean me. We've had a number of cases where we've dealt with Big 4 audit groups and they've said, no, no, no, that most recent transaction isn't relevant. Exclude it entirely, and we've done our best to defend our 409A value or Topic 718 value for fair value on the basis of what the market is shown to bear based on transactions in the secondary market. I will say that from a tax perspective, Revenue Ruling 59-60 implies that an isolated transaction goes to Jeff's point, in that you have to look at who's involved in that transaction. Is it an arm's length transaction? Is it simply an isolated transaction where you have executives disposing of shares? If that's true, then, and you can't necessarily factor in blockage discounts in that transaction. These may be sophisticated investors that don't consider it. So I think all of those factors are relevant in deciding whether to use that transaction in a secondary market as a data point. I think you could make a compelling case one way or another depending on the facts and circumstance of each particular case on whether you're going to weight that transaction. This is an area that I think we're going to see a whole lot of change in as the secondary market matures.

JOE: This topic came up twice over the last couple of weeks: once at the Fair Value Summit in San Francisco when the founder of SecondMarket spoke at that summit and once at a followup at our Fair Value Forum meeting in terms of just bringing up the topic. The question I asked at the Fair Value Summit of the founder of SecondMarket was for a company like Facebook, which is traded on the SecondMarket, is does it even require a 409A valuation because the SecondMarket value is a Level 1 input according

to Fair Value terminology? His answer was yes, the client still does have to get a 409A valuation done and that is used to reconcile with what's being traded on the open market. But for Facebook, which has a significant volume attached to it because it is the single highest volume company for SecondMarket in terms of private company trading, it has to be looked at and it has to be taken into consideration.

Now the flipside is at the Fair Value Forum where I brought the same topic up, there were two people in the room from the Big 4, and both had varying degrees of opinion. One said that you have to look at it, and if anything you have to look at it as a primary indication if there are more than three to five sales. If it's an isolated single sale, then you may want to look at it with a little less weight. But when you have three, five, 10, or even a hundred sales, you have to look at what that trending price is in terms of reconciling value, since by definition a willing buyer and willing seller, third party, is the most pure input for determining value. The other Big 4 participants said, well you have to look at who's buying and why are they buying it. Are they buying it as a marketable product or are they buying because they just want to say "I love Facebook and I want to own Facebook, no matter what the price is"? Also a lot of that has to do with the amount of information they have available to them to price the market. The 409A valuation certainly looks into all of the data with full disclosures of financials, forecasts, and access to management, whereas a SecondMarket transaction generally doesn't have any of that data association with it because there are no information rights associated with the ownership of that stock.

So it's something, like Josh said, that's growing up over time and growing up before our eyes. I don't think investors will have the available information they need to make a sound judgment as to what these companies are worth unless a research model develops around these companies. So you have to take it as it is as a transaction, but maybe not a transaction that's done at a fair market value based on the fundamentals. But I come from an investment banking background, and when I was working on IPOs in 1999 and 2000 at Credit Suisse, fundamental value never played a part in pricing an IPO. The fair value is what a buyer is willing to pay for it.

LORENZO: Exactly.

JOE: When you're dealing with companies that have no revenue or you're valuing it based on eyeballs or page views back in the late 1990s it's tough to throw a fundamental approach to it.

LORENZO: Great. So what I have up here is the University of Texas report on IRRs for funds, which I'm sure everyone's seen. Obviously, one of the biggest components now for fund performance is the unrealized value, which is heavily dependent on how different funds estimate value from period to period.



From a valuation perspective, obviously this has some of an impact on the value of the fund stock. But also the secondary sale of common stock in these marketplaces has some impact on the marketability of all shares. So a lot of what we have been discussing is with respect to using transactions as a data point. But what I'm curious about is how do you adjust your marketability discounts to reflect that fact that there's obviously a venue to liquidate common interests in some of these companies? Does that make the value of everyone's stock worth more, depending on the enterprise value you took, since the preferred shareholders, if they wanted to, could either convert to common and effect a sale or more likely sell the more desirable preferred shares they have in a secondary transaction?

JEFF: Yes, I definitely think so. I've done a lot of ESOP work, and the existence of a put option for your ESOP lowers the marketability discount, and the same theory should apply here. Granted, most of those companies trade a very limited volume, so it wouldn't eliminate the discount, but it could lower it. Now, obviously, this is a growing industry so it will take time for us to get data that says what kind of reduction to the marketability discount is needed when the secondary market exists. Is there a trading window? What kind of volume is there? All of those things will have to be taken into account.

JOE: Yes, I've looked at the possibility of adjusting the lack of marketability based on the bid-ask spread, and I think you can learn a lot in the secondary markets, not by the prices where sales occur, but rather by the bid-ask spread. So I would assume that if you have full access to a market as a common stockholder and you have a transaction that occurred at a price, you take the same approach you take when looking at restricted stock for a publicly traded company or an option to own those shares. We all end up with a smaller discount for a lack of marketability when looking at that methodology.

JOSH: To continue on Joe's point, it's kind of a continuum. On the one hand, you have a liquid market, and that liquid market would be measured by a narrow bid-ask spread or by significant trading volume regularly, as well as adequate breadth and depth of trading volume. On the other end of the spectrum, you have a privately held company for which there is absolutely no market. So a zero discount applies to the liquid market, and 100% of the available discount applies to the privately held company without a market for its stock. You'd have to make an argument based on your judgment as to where a given company on SecondMarket falls on that continuum. Thus far, I haven't seen any evidence that this is truly a liquid market, yet. I would continue applying discounts for lack of marketability. It [secondary market transactions] would lie somewhere on that continuum that we've all described.

JOE: Yes, I agree. I think that Facebook would be an outlier here, because Facebook represents the highest percentage of volume, so in that case the discount for lack of marketability would be the lowest, if not zero. But it's still not by definition a fully liquid market.

LORENZO: We could easily take this just one step further. Suppose we move beyond the secondary markets and move on to the repurchases of stock. For instance, in addition to Facebook, Groupon had a similar significant transaction with DST where DST would acquire a significant portion of common stock as part of its investment in the company. You saw the same thing with Zynga, where a substantial portion of the common stock would be acquired as part of the investment. Obviously, that creates liquidity for everyone immediately and sets the price for the common stock as well as all the other securities. So each of your comments, as well as the techniques we've discussed, supports approaches to addressing the issue of both market inputs (market approaches to valuation) and marketability discounts (the continuum you've referred to). Thanks for those insights.

## **SUMMARY**

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In this chapter many of the techniques that were introduced and covered throughout this book were discussed with expert valuation practitioners who use them daily in their work for venture-capital-financed companies. The shortcuts presented earlier, as well as the methods for identifying weaknesses in value conclusions to enhance profits, can be applied quickly in most cases. However, the techniques these professionals apply, and the way in which they present their analyses and conclusions, can determine if auditors, tax authorities, and securities regulators approve of their reports. In an ideal situation, all of these elements would converge and find equilibrium at a similar value conclusion, adjusted for differences in standards of value. In the real world, sometimes simply having a better understanding of how and why different parties reach their respective conclusions can allow you to more effectively close that gap with your own insights, intuition, and analysis.

In Chapter 10, we will quickly review some of the techniques and keys to remember to avoid losing your share of the millions foregone daily in the world of venture-backed companies due to failure to understand "value."