Silicon Flatirons
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*Roundtable Series on Entrepreneurship, Innovation, and Public Policy**

Bringing Angel Investing Out of the Shadows

*David Mangum, Rapporteur***

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** Research Fellow, Silicon Flatirons Center

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The role of angel investors in the world of entrepreneurial finance is understood in disparate ways. Angels are viewed alternately as heroic helpers (hence the name "angel"), unqualified naïfs ("dumb money"), shrewd capitalists with Paul Bunyan-like capacities ("super angel"),[1] and members of a larger band of likeminded individuals (part of angel syndicates). These conflicting depictions reflect the very different roles that angels play in financing startup companies.

Although angels come in many shapes and sizes, anecdotal and conceptual evidence suggest that they collectively perform an increasingly vital role in startup financing.[2] Angel investing may not meet the formal definition of a public good,[3] but it offers strong positive externalities and spillover benefits, including job creation by companies that hire employees with money obtained through angel financing, private investment in local business,[4] and the creation of more and deeper connections among entrepreneurs and investors. Professor Darian Ibrahim has observed the critical function angels can perform—namely, building a financial bridge that leads startups to venture capital ("VC") financing.[5] On November 30, 2011, the University of Colorado Law School's Silicon Flatirons Center convened an invitation-only private Roundtable (the "Roundtable") with some of Colorado's leading angel investors, entrepreneurs, lawyers, and professors to discuss the dynamics and challenges of angel investing in Colorado. The lessons from that discussion, coupled with additional research on angel investing, are set forth in this report (the "Report).

The primary ambition of this Report is to illuminate several key issues associated with angel investing that are debated, frequently misunderstood, or not widely known. In other words, this Report seeks to bring angel investing out of the shadows. Some of these issues—such as deal terms in angel investment contracts—are well understood by highly sophisticated angels, commentators, and Roundtable participants. Yet this discussion merits dissemination to a wide range of entrepreneurs and investors. Other issues—such as the aggregate performance of angel investing as an asset class—are not as well understood, even by startup cognoscenti. To bring angel investing out of the shadows, then, is to attempt to catalogue some of the most important aspects and challenges of the asset class, both generally and in Colorado specifically.

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[1] Certain investors are commonly referred to as super angels but increasingly they are handling other people's money and are more accurately referred to as micro-VCs. *See*, *e.g*., Pui-Wing Tam & Spencer Ante, '*Super Angels' Alight*, Wall St. J., Aug. 16, 2010, http://online.wsj.com/article/SB10001424052748703321004575427840232755162.html.

[2] *See*, *e.g*., Jeffrey Sohl, The Angel Investor Market in 2010: A Market on the Rebound, Ctr. for Venture Research (2011).

[3] *See, e.g,* Tyler Cowen, *Public Goods*, The Concise Encyclopedia of Economics (2008), http://www.econlib.org/library/Enc/PublicGoods.html.

[4] Jan Horsfall, *The Power of Angel Investment*, Inflective Havoc (Nov. 27, 2011 8:31 PM), http://janhorsfall.wordpress.com/2011/11/27/the-power-of-angel-investment/.

[5] Darian Ibrahim, *The (Not So) Puzzling Behavior of Angel Investors*, 61 Vand. L. Rev. 1405, 1406 (2008).

Five issues are discussed and contextualized in the body of this Report. In short, those issues are:

- **The Angel Investing Paradox**
  - Investments are made when uncertainty, information asymmetry, and the potential for agency costs are arguably highest, yet most angels obtain lighter and fewer contractual protections than do venture capitalists.
- **Convertible Debt**
  - The use of convertible debt in angel deals is a topic spurring considerable investor interest with widely divergent opinions.
- **The Bridge to Nowhere Problem**
  - Angel investing in Colorado faces a "bridge to nowhere" problem: investing becomes riskier as the scarcity of Colorado-based VC funds means that more Colorado startups either fail or move to the location of the out-of-state VC that funds them.
- **Unreliable Data About Angel Investing as an Asset Class**
  - Little reliable public information exists about how angels impact the operational, strategic, and interpersonal aspects of the startup companies that they fund, and about how angel investments perform as an asset class.
- **The Potential for Better Information Sharing**
  - Better information sharing among Colorado angels and would-be angels strikes many Roundtable participants as a useful way to improve the broader startup ecosystem in Colorado.

Each of these issues merits more detailed attention. First, angel investing suggests an apparent paradox: angel investments are made at (or nearly at) the moment when uncertainty, information asymmetry, and the potential for agency costs are arguably highest. Yet most angels obtain lighter and fewer contractual protections than do venture capitalists, who typically invest in companies after angels do.[6] Some, including scholar Darian Ibrahim, have argued that comparatively "simple" angel contracts are rational because those contracts effectively lure follow-on venture capital investment.[7] An understanding of deal terms used by sophisticated angels in attendance at the Roundtable, however, suggests another, perhaps more revealing, view. Sophisticated angels frequently use more VC-like terms in their investment contracts. A lack of such investor protections in an angel investment contract may in fact be evidence of unsophisticated investor behavior.

Second, convertible debt is a topic spurring considerable investor interest with widely divergent

[6] *See id*. at 1407-08 (a complicated angel contract can deter follow-on financing from venture capitalists due to, among other reasons, the hassles associated with unwinding or modifying the complicated angel deal).

[7] *See id*. at 1408.

opinions. Some commentators and Roundtable participants argue that, from the angel investor's perspective, convertible debt is not a preferable form of investment and, moreover, often signifies that the angel is not sophisticated.[8] Others, however, suggest that convertible debt can be a rational, sophisticated investment, particularly when a proper valuation of the company is difficult to know or negotiate.[9] Multiple Roundtable participants agreed that, irrespective of the ultimate challenges it presents, convertible debt enables parties to punt on the question of company valuation and quickly provide the company with capital. When money is invested in the form of debt, the company's valuation need not be discussed because the amount invested does not immediately represent a defined ownership stake in the company.[10]

Third, the decline in Colorado-based VC funds implicates a "bridge to nowhere" problem for angel investing in the state. When angels invest in Colorado startups, a scarcity of Colorado-based VC funds means that the startups seeking additional capital often either fail or must move to the location of the out-of-state VC that funds them. From the perspective of the angel, investing becomes even more uncertain and, hence, riskier. Angel investing may indeed give companies a longer runway to become viable, revenue-generating companies. But a lengthened runway may be irrelevant if the shortage of Colorado venture capital ultimately means a higher number of angel-funded companies never make it to acquisition or IPO. As one Roundtable participant observed, there "probably are companies that should be funded that aren't getting funded" in Colorado. Diminishing levels of Colorado venture capital present a big challenge both for startups and for the angels who fund them.

Fourth, little reliable public information exists about how angels impact the operational, strategic, and interpersonal aspects of the startup companies that they fund, and about how angel investments perform as an asset class.[11] Angel investing remains practically and academically challenging. There is some reason, in fact, to suspect that angels may not perform well enough

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[8] *See*, e.g., Mark Suster, *Raising Angel Money*, Both Sides of the Table (July 19, 2009) http://www.bothsidesofthetable.com/2009/07/19/raising-angel-money/.

[9] Multiple Roundtable participants echoed this sentiment.

[10] *See*, *e.g.*, Mark Weakley PowerPoint presentation, "Silicon Flatirons: Angel Financing Terms & Trends for Convertible Notes." (On file with the author.) Of course, negotiating the valuation caps in a convertible debt deal still implicates company valuation in a sense, because the cap needs to be within a certain band of valuation in order for both the entrepreneurs and angels to agree to it.

[11] The work of Jeffrey Sohl at the Center for Venture Research is a notable exception. *See*, *e.g.*, Jeffrey Sohl, The Angel Investor Market in Q1, Q2, 2011: A Return to the Seed Stage, Ctr. for Venture Research (2011), *available at* http://wsbe.unh.edu/sites/default/files/q1q2_2011_analysis_report.pdf. *But see*, *e.g.*, Scott Shane, The Importance of Angel Investing in Financing the Growth of Entrepreneurial Startups, Small Business Administration, Office of Advocacy, [6] (2008). "Unlike venture capital investments, angel investments are made by individual investors who do not make up a known population. Therefore, much of what is reported about angel investing comes from anecdotes and surveys of convenience samples, which are prone to biases and inaccuracies."

to sustain a vibrant angel market over the long term.[12] Navigating company selection amid large information gaps is notoriously difficult.[13] Even among venture capitalists that operate as specialized professionals, variance in performance is highly divergent, leading some limited partners to "pick the 10 best and forget the rest."[14] Angel investing is a complex area of entrepreneurial finance made murkier by the highly private nature of many angel deals. Indeed, in follow up correspondence after the Roundtable, one participant stressed the need for intensified rigor in studying and understanding angel investing, particularly around the technical aspects of the asset class (deal structure and investment performance), further observing that a proper study of angel investing might benefit from analogous technical comparisons to other asset classes.[15] Despite these challenges in understanding angel investing, various key themes merit extended discussion and inquiry.

Fifth, better information sharing among Colorado angels and would-be angels strikes many Roundtable participants as a useful way to develop broader investing competence to sustain a successful startup ecosystem in Colorado. As one participant put it, the majority of Colorado angels "don't understand angel investing, don't know how to ride along in a round of multiple investors, and don't know how angel investing impacts the broader entrepreneurial community." Another participant offered further criticism, suggesting that Colorado suffers from a lack of good angel leadership, and, more broadly, from a relatively small ecosystem of angels. Improved information sharing could help entrepreneurs better manage the angel investments that they take and better streamline deal mechanics among angels themselves.

Angel investing is not a phenomenon limited to the only the densest or most developed of entrepreneurial ecosystems. Indeed, at least three factors suggest that angels are increasingly important in Colorado's Front Range. First, especially in software, angels now play in what used to be essentially venture capital territory. Plummeting information technology costs—enabled by cloud computing, Moore's law,[16] and broadband capacity—have made $500,000 the new $5 million.[17] Thus, angel-size investment rounds are now sometimes a viable alternative to VC investment, at least for companies that

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[12] *See*, *e.g.*, Mark Suster, *Angel Investing (1): Dealflow—Are You Sitting at The Right Poker Table?*, Both Sides of the Table (Sept. 14 2010), http://www.bothsidesofthetable.com/2010/09/14/angel-investing-1-dealflow-are-you-sitting-at-the-right-poker-table/. Angel investing "is stacked in favor of the few. We all think it's an even table and we have the same shots at making money as the next guy. Unfortunately that's a myth."

[13] *See* Fred Wilson, *What We Are Seeing*, Business Insider, http://www.businessinsider.com/what-we-are-seeing-2011-10 (2011); *see also* Suster, *supra* note 8.

[14] Fred Wilson, *Why Past Performance Is A Good Predictor Of Future Returns In The Venture Capital Asset Class*, http://www.usv.com/2007/11/why-past-perfor.php (Nov. 26, 2007).

[15] John Howard email dated December 1, 2011 (on file with the author).

[16] *See*, *e.g.*, *Moore's Law Inspires Intel Innovation*, http://www.intel.com/content/www/us/en/silicon-innovations/moores-law-technology.html. Moore's law states that the number of transistors on a chip will double approximately every 18 months to two years.

[17] *See*, *e.g.*, Steve Lohr, *The Rise of the Fleet-Footed Start-Up*, N.Y. Times, April 25, 2010, at BU5. "Internet companies have steadily taken advantage of the falling costs of getting up and running—often spending just hundreds of thousands of dollars instead of the millions that were required several years ago."

are not capital intensive. Second, investors in venture capital funds—the limited partners that provide capital for venture capitalists to invest in startups—increasingly disfavor VC firms with region-specific investment strategies, resulting in a contraction of Colorado-based institutional money. Combined with the retirement of the first generation of Colorado's venture capitalists, such as pioneer Steve Halstedt from Centennial Ventures, the Front Range has seen a decline in Colorado-based VC funds.[18] This decline implicates the "bridge to nowhere" problem for angel investing. Third, dense networking opportunities and high velocity information flows in the Front Range make it easier—relative to other locations—for angel investors to plug into the area's startup scene. TechStars, Open Angel Forum, Silicon Flatirons events, the Founder Institute, the New Tech Meetup, and a host of other events and organizations allow would-be angels to network and see deal flow without incurring high search or transaction costs.

This Report contains several sections. Section I explores the conceptual and technical basics of angel investing, explains how angel investing differs from venture capital, and identifies angel investing as a vital source of early financing for startups. Section II considers the various challenges to Colorado angel investing, including the angel investing paradox, the need for a larger base of sophisticated angels, the need for improved angel deal flow, and the bridge to nowhere problem. Section III advances potential solutions to Colorado's angel investing challenges, including improved angel education and information sharing. A closing Appendix provides more detailed information on the technical differences between the two major types of angel investment structures.

I. A Pillar of Early-Stage Entrepreneurial Finance: Angel Investing Basics

An overview of the fundamental aspects of angel investing shows that it is a pillar of early-stage entrepreneurial finance. The answers to four primary questions explain central elements of the angel asset class: (a) what is angel investing?, (b) how big is angel investing as an asset class?, (c) why does angel investing matter and how is it different from venture capital?, and (d) what are the basic types of angel investment structures?

A. What Is Angel Investing?

Angel investing involves the provision of capital by an investor to an early stage company in exchange for some ownership—or view toward future ownership—in the company. For entrepreneurs who determine that "bootstrapping" (i.e., launching a business *without* outside money) is suboptimal, angels occupy the early financing space between the "3Fs" (*i.e.,* friends, family and fools—early

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[18] *See* Greg Griffin, *Colorado Venture-Capital Funding Near Seven-Year Low Last Year*, Denver Post, http://www.denverpost.com/business/ci_17963668 (May 1, 2011 1:00 AM MST); *but see* Andy Vuong, *Colorado Firms Got $619 Million in Venture Capital in 2011*, Denver Post, http://www.denverpost.com/business/ci_19780060 (Jan. 20, 2012 3:41 AM MST).

outside money into a startup, often from relatives or friends) and VCs (*i.e.,* venture capitalists who professionally invest money on behalf of a fund). An angel "round" —that is, a round of outside investment into a company—varies widely and can range from between $100,000 to $2 million.

Darian Ibrahim defines angel investors as "wealthy individuals who personally finance the same high-risk, high-growth startups as venture capitalists but at an earlier stage."[19] Scott Shane offers another description: angel investors provide "capital, in the form of debt or equity, from [their] own funds to a private business owned and operated by someone else who is neither a friend nor a family member."[20] Angel investors are generally "accredited investors" under Rule 501 of Regulation D of the Securities Act of 1933, meaning that, in short, they are high net worth individuals.[21] Ibrahim's and Scott's descriptions illustrate two key components that are crucial for understanding angel investing as a form of entrepreneurial finance: (i) angel investors invest their own capital, and not the capital of third parties, in early stage companies[22] and (ii) angel investors invest at a very early stage in the company's existence (even earlier than when a VC fund might invest), meaning that angels invest in companies when uncertainty and risk are especially high.[23]

The average angel deal size (amount invested in a single round) in the first and second quarters

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[19] Ibrahim, *supra* note 5, at 1406; *see also* Tam and Ante, *supra* note 1 (stating that "There is no technical definition of an angel investor.").

[20] *See* Shane, *supra* note 11, at 6-7.

[21] It is, of course, more complicated: to be an accredited investor, one must have a net worth of at least $1M or have made more than $200k the past two years or have joint income with a spouse exceeding $300k for the past two years and a reasonable expectation of the same income level in the current year. Under the Securities Act of 1933, a company that offers or sells its securities must register the securities with the SEC or find an exemption. For some exemptions, such as rules 505 and 506 of Regulation D, a company may sell its securities (without registering) to what are known as "accredited investors." Securities and Exchange Commission, Accredited Investors, http://www.sec.gov/answers/accred.htm.

22 Discussion and research emphasized angel investing in high growth startups, not "lifestyle companies" or "small businesses"; *see, e.g., Small Business vs. Startup with Steve Blank,* http://www.youtube.com/watch?v=CIA9ikESXYI (Nov. 11, 2011).

23 *See also* Angel Capital Association, *FAQ About Angel Groups*, http://www.angelcapitalassociation.org/press-center/angel-group-faq/ (last visited Apr. 1, 2012) ("An angel is a high net worth individual who invests directly into promising entrepreneurial businesses in return for stock in the companies. Many are entrepreneurs themselves, as well as corporate leaders and business professionals.") Although some have suggested that empirical studies of angel investing could employ a more refined taxonomy for different types of angels, the Roundtable disavowed discussion about different types of angels, instead using *Star Wars*-inspired categories proposed by Brad Bernthal, Director of the Entrepreneurship Initiative at Silicon Flatirons: (1) "Han Solo" angels are wealthy individuals going it alone; some are savvy (know the industry in which they invest) and some are not ("dumb money"). (2) "Rebel Alliance" angels are groups of angels that get together for collective company vetting and deal making (examples include Open Angel Forum). (3) "Obi Wan" angels are highly sophisticated, often working professionally as venture capitalists; they invest their own money in angel deals, often to later invest a larger round of capital from a venture fund into the same company. Certain investors are referred to as super angels but increasingly they are handling other people's money and are more accurately referred to as micro-VCs. *See, e.g.,* Tam and Ante, *supra* note 1 ("These players are now raising funds with outside money, investing full time and competing with VCs.").

of 2011 was just over $338,000.[24] According to the Angel Capital Association, the median investment per round per angel group in 2008 was about $277,000; many angel groups co-invest with other angel groups and individual angels to make investments of $500,000 to $2 million per round.[25]

B. How Big Is Angel Investing as an Asset Class?

According to Ibrahim, angels provide roughly $25 billion to new ventures each year.[26] Although Shane has argued that definitional confusion regarding angels can make it difficult to compare findings across different angel studies,[27] a variety of sources suggest that yearly angel investment amounts average $25 billion and trended as high as $60 billion at the height of the dot com era in 2000.[28] One study suggests that the angel market and venture capital market are roughly equivalent in size, with each group investing approximately $25 billion in 2006.[29] A more recent study from Jeffrey Sohl at the Center for Venture Research suggests that total angel investments in 2010 were $20.1 billion, an increase of 14% over 2009, and that nearly 62,000 entrepreneurial ventures received angel funding in 2010.[30] Sohl's data also indicates that over 265,000 individuals were active in doing angel deals in 2010.[31]

Related to some of the uncertainty regarding the precise size of angel investing as an asset class is the difficulty in tracking angel investment performance. The angel investment market is characterized by "reference-driven," informal deal flow, and many angels operate with a measure of secrecy, or at least with a low profile, "to avoid being inundated with funding requests from the multitudes of new startups that require capital."[32] The consequence of the "back channel" nature of many angel deals renders thorough quantitative data about angel performance hard to obtain.[33] Drawing on a concept from Geoff Colvin,[34] Brad Bernthal observed that understanding angel investing as an asset class is like bowling through a curtain that hangs down to knee level: it is hard to know aggregated results with much accuracy, especially when many angels act individually and not as full-time professionals. Although the quality of angel investing data may be improved by the creation of large, representative

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[24] *See* Sohl, *supra* note 11.

[25] Angel Capital Association, *supra* note 23.

[26] Ibrahim, *supra* note 5, at 1406.

[27] Shane, *supra* note 11, at 2.

[28] Ibrahim, *supra* note 5, at 1419 (citing multiple sources).

[29] *See* Ibrahim, *supra* note 5, at 1419 (citing Jeffrey Sohl, The Angel Investor Market in 2006: The Angel Market Continues Steady Growth, Ctr. For Venture Growth (2006), *available at* http://unhinfo.unh.edu/news/docs/2006angelmarketanalysis.pdf).

[30] Sohl, *supra* note 2.

[31] *Id*.

[32] Ibrahim, *supra* note 5, at 1421.

[33] Ibrahim, *supra* note 5, at 1421.

[34] Geoff Colvin, Talent Is Overrated: What Really Separates World-Class Performers from Everybody Else (2008).

samples of angel investors, angel investments, and angel-financed companies,[35] nothing in the available evidence suggests that angel investing is not a large, complex multibillion-dollar asset class.

C. Why Does Angel Investing Matter and How Is It Different from Venture Capital?

Roundtable participants including Cooley LLP Partner Mike Platt and Keld, LLC Managing Director Nancy Pierce noted that their own angel investment contracts have many of the protective features of venture capital contracts, including preferred equity and other investor rights. Multiple Roundtable participants suggested that the use (or non-use) of investor-protective features in angel investment contracts perhaps better distinguishes sophisticated angels from unsophisticated angels than it distinguishes angels from venture capitalists. Although this question is addressed in greater detail in Section II, it identifies an important conceptual distinction: the difference between angel investing and venture capital. Angel investing plays an essential role in entrepreneurial finance not only because it is a multibillion-dollar asset class, but also because it provides funding at a stage in a startup's growth where a startup has often taken friends-and-family funding but is not yet big enough or established enough to take on venture capital funding. In other words, angel investing allows a startup to build the financial bridge from friends-and-family funding to venture capital funding.[36]

A typical VC round averages between $2 million and $10 million.[37] Although some early stage venture capital firms will invest in rounds smaller than $2 million, venture capitalists often do not invest below this threshold because (a) risk and uncertainty are especially high when the company is so young, (b) the typically large amount of money that venture capitalists raise from limited partners can be allocated more efficiently in larger amounts, and (c) the monitoring costs that venture capitalists incur when investing in a company favors investments in startups with more operating history.[38] All this means that a startup seeking, say, $500,000 in financing likely will not get a venture capital fund to make such an investment.[39] The lack of VC financing for companies at this stage is a gap: a startup that has taken small amounts of capital from family and friends, but that does not get angel capital in the $100,000 to $2 million range, may never reach a point of viability and size to get VC funding.[40] According to Ibrahim, this gap is a serious problem for startups; without financial (and nonfinancial) assistance during their first year, many startups fail to develop to the point of attractiveness for venture

[35] Shane, *supra* note 11, at 43.

[36] Ibrahim, *supra* note 5, at 1406.

[37] *Id*. at 1416.

[38] Ibrahim, *supra* note 5, at 1417.

[39] *See* Ibrahim, *supra* note 5, at 1416-17.

[40] *See* Ibrahim, *supra* note 5, at 1416. Bill Payne & Associates has described the angel funding gap slightly differently: "Angel investors usually invest between $200,000 and $1 million...Today, very few VCs will invest in deals seeking less than $4 million. Bill Payne & Associates, *The Funding Gap*, http://billpayne.com/2011/01/20/the-funding-gap-2.html (Jan. 10, 2011).

capitalists.[41] Angel investing fills this gap (i.e., provides capital in lower dollar amounts to startups that need less than a multimillion dollar VC round) until the startup is larger, more proven, and, hence, ready for VC funding.[42]

Jeff Sohl has observed that "as venture capital has progressed to larger and later stage financing, and the informal market has remained active below the $2 million threshold, a capital gap in the $2 million to $5 million range has developed, which has spawned a new hybrid of angel financing—the angel alliance" (relatively large groups of angels investing in a single company or group of companies).[43] There exists, however, discordant scholarly use of the "gap" concept. Ibrahim refers to the "gap" as the zone between friends and family financing (under $100,000) and venture capital financing (over $2 million), a zone occupied by angel investing. Sohl and Bill Payne, on the other hand, refer to the gap as the space between traditional angel financing ($100,000 to $2 million) and venture capital financing ($4-5 million), a space increasingly occupied by angel groups. Whatever the dollar amounts considered, the "gap" concept is useful insofar as it distinguishes angel/angel group investing from venture capital. Below a certain dollar threshold (whether it is $2 million or $4 million), venture capital firms do not typically invest, which creates a need for investment from angels. Interestingly, a study of European angel investment shows just how important a role angel investing could play in light of the funding gap. Some of the larger angel groups in Europe are now making multiple rounds of funding and even taking businesses to an IPO or a sale without the need for investment from VC funds.[44]

Although angel investing may help bridge the VC financing gap, it invites the question: aside from the stage of the company and the amount of capital invested, is angel investing meaningfully different from venture capital investing? Ibrahim contrasts the two types of financing:

> Venture capital is a purely financial endeavor because venture capitalists must produce returns for venture fund investors within a relatively short time frame. Angels, however, are not bound by such constraints because they invest personal funds, and therefore answer to no one for the investment. The use of personal funds gives angels flexibility to invest for nonfinancial as well as financial reasons, and, in fact, many angels do have personal reasons for investment.[45]

This description harkens back to a key definitional aspect of angel investing: angels invest their own

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[41] Ibrahim, *supra* note 5, at 1418 (citing Jeffrey Sohl, *The U.S. Angel and Venture Capital Market: Recent Trends and Developments*, 6 J. Private Equity 7, 15 (2003)).

[42] Unless, of course, the startup fails before it can even take on any VC funding.

[43] Jeffrey Sohl, *The U.S. Angel and Venture Capital Market: Recent Trends and Developments*, 6 J. Private Equity 7 (2003).

[44] Colin M. Mason, *Public Policy Support for the Informal Venture Capital Market in Europe: A Critical Review*, 27 Int'l Small Bus. J. 24 (forthcoming 2009), *available at* http://www.angelcapitaleducation.org/data/Documents/Resources/AngelCapitalEducation/ISBJ%20BA%20paper%20FINAL.pdf.

[45] Ibrahim, *supra* note 5, at 1408.

capital into startups, whereas venture capitalists invest the capital of others (limited partner investors).

Mark van Osnabrugge has offered a categorical interpretation of how angels differ from venture capitalists, at least regarding the way that each group approaches agency costs.[46] According to van Osnabrugge, angels reduce agency costs through an incomplete contracts approach, which states that because "contracts are always incomplete . . . it is really the ex-post allocation of control which is more important, rather than ex-ante screening and contract writing."[47] Van Osnabrugge is unclear on the mechanisms by which an investor allocates control in an ex post (post contracting) fashion, vaguely suggesting only that ex post allocation of control could be achieved through "active involvement in the investment."[48] Whatever the mechanisms by which an investor implements ex post control, van Osnabrugge further speculates that angels may favor this approach because "they are less frequently professional investors with research and contracting skills."[49] Under van Osnabrugge's interpretation, venture capitalists, on the other hand, reduce agency costs through the principal-agent theory, which is primarily concerned with determining the optimal contract between principal and agent. Van Osnabrugge posits that this approach emphasizes "pre-investment screening and due diligence so that information asymmetries decrease and a better contract can be negotiated."[50] Venture capitalists favor this approach, van Osnabrugge hypothesizes, because responsible behavior (due diligence and thorough contracting) "may be the best way [for venture capitalists] to signal to their fund providers that they are a high-quality organization."[51] Van Osnabrugge's analysis illuminates the larger trend, seen by many, that angels and venture capitalists invest in startups using different contractual terms.[52]

Beyond who floats the capital, angel investing and venture capital may differ in a more technical way: the deal terms they typically use. To mitigate the problems of uncertainty, information asymmetry, and agency costs inherent in startup investing,[53] venture capitalists use investment contracts employing five protective measures: (1) staged financing (the contract provides for the disbursement of funds to the startup in stages), (2) convertible preferred stock in the startup, (3) control over the startup by allocating board seats to the venture capitalist, (4) negative covenants requiring venture

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[46] Agency costs are, essentially, situations where one person (the agent; here, the entrepreneur) who contracts to do something on behalf of another person (the principal; here, the investor) does not act in the best interests of the principal. *See, e.g.,* Michael C. Jensen and William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, 3 J. of Fin. Econ. 1, at 4-5 (1976).

[47] Mark van Osnabrugge, *A Comparison of Business Angel and Venture Capitalist Investment Procedures: An Agency Theory-Based Analysis*, *Frontiers for Entrepreneurship Research* (1999) (updated March 2000), *available at* http://www.babson.edu/entrep/fer/papers99/award%203/award3.html.

[48] *Id.*

[49] *Id.*

[50] *Id.*

[51] *Id.*

[52] *See*, *e.g.*, Ibrahim, *supra* note 5, at 1407-08.

[53] *See, e.g.,* Ronald Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 Stan. L. Rev. 1068, 1076 (2003).

capitalist approval for major decisions, and (5) exit rights including redemption (or put) rights, demand registration rights, and conversion rights.[54] Ibrahim posits that angel investment contracts, on the other hand, are "strikingly informal."[55] "At a time when uncertainty, information asymmetry, and agency costs are even higher" than when venture capitalists invest in a company, he notes, "'traditional' angels do not extract any of the venture capitalists' common contract protections."[56] Divergent contract terms between angels and venture capitalists are not simply a rarefied question of academic interest; angels and venture capitalists can come into conflict when they invest in the same company.[57] Fried and Ganor have argued that when angels invest through common equity, they are vulnerable to opportunism when preferred-owning VCs later take control of the board.[58] In light of the potential for future VC investment in the company, Fried and Ganor assert that

> to the extent that angel investors anticipate that later-investing VCs will take control of the board and act opportunistically, angels will expect a lower return, which may discourage them from investing in startups through common stock or may cause them to demand a larger stake in exchange for their investment, thus raising the cost of seed capital to entrepreneurs.[59]

Despite Ibrahim's argument that angels' use of comparatively "simple" contracts is rational because those simple contracts ultimately make the startup more inviting to later venture capital investment (a point further discussed in Section II),[60] Roundtable participants identified a countervailing example: how their own angel deals have many of the protective features of venture capital contracts, including preferred equity and other investor rights.[61] Mike Platt, Nancy Pierce, and other Roundtable participants suggested that the use (or non-use) of investor-protective features in angel investment contracts perhaps better distinguishes sophisticated angels from unsophisticated angels than it distinguishes angels from venture capitalists. Nonetheless, irrespective of whether low-protection angel investment contracts differentiate angel investing from venture capital or merely differentiate sophisticated angels from unsophisticated angels, Roundtable participants acknowledged that venture capital contract terms can often be more stringent against the entrepreneur than even an angel investment contract executed by the savviest of angels. Whatever the ultimate import of

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54 Ibrahim, *supra* note 5, at 1413-15.

55 *Id*. at 1407.

56 *Id*. at 1407-08.

57 Jesse Fried and Mira Ganor, *Agency Costs of Venture Capitalist Control in Startups*, 81 N.Y.U. L. Rev. 967 (2006).

58 *Id*.

59 *Id.*

60 *See* Ibrahim, *supra* note 5, at 1408.

61 The attitude of Roundtable participants like Platt and Pierce accords with the observation of Fried and Ganor that the potential for subsequent conflict with VCs would discourage angels "from investing in startups through common stock", instead using preferred equity similar to the equity taken by VCs.

contractual distinctions between angel investing and venture capital—the two types of investing are at least somewhat different, contractually speaking—the structures and terms of angel investments merit their own overview.

D. What Are the Basic Types of Angel Investment Structures?

Broadly speaking, there are two basic types of angel investment structures: (a) equity or (b) convertible debt. Although a fuller description of the complexities of equity and convertible debt can be found in Appendix A, a brief overview of the two types of structures follows.

With an equity angel investment, the investor takes an ownership percentage (a number of shares) in the company; although some have noted that angels sometimes take common shares,[62] many angels who take equity often get preferred shares.[63] Brad Feld has offered a simple description of the two main types of angel investments.[64] With preferred equity—often called "light preferred"—the angel takes preferred stock that is similar to what a venture capitalist will get, "but usually with lighter terms due to the relatively low valuation associated with it."[65] "Lighter terms" that the angel's preferred equity can have include covenants protecting the investor and other mechanisms that, on the occurrence of events like future financings or liquidation of the company, give greater protection to the preferred equity holder than a common shareholder would get.[66]

With convertible debt—which Feld calls the "easier" of the two types of angel structures—the investment is in the form of a promissory note that converts into equity on the occurrence of a later "qualified financing" (where "qualified financing" typically is defined by having a minimum amount—say, $1 million—of total investment).[67] The note will either convert at a discount to the price of the qualified financing (usually in the 20% to 40% range), will have warrant coverage (usually in the 20% to 40% range), or both.[68] The discount and/or warrant coverage gives the angel investors some additional ownership in exchange for taking the early risk of investing in the company.[69] When properly executed, the convertible notes "have conversion and redemption characteristics clearly

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[62] Ann-Marie Koss, *Best Practice Guidance for Angel Groups—Deal Structure and Negotiation*, Angel Resource Institute, at 3.

[63] *See*, *e.g*., Abraham Cable, *Fending for Themselves: Why Securities Regulations Should Encourage Angel Groups*, 13 U. Pa. J. Bus. L. 107, 127 (2010). "It is often stated that angel investors are more likely to invest in common than preferred stock. Recent studies, however, suggest that this perception is no longer accurate (if it ever was)."

[64] Brad Feld, *What's the Best Structure for a Pre-VC Investment*, FeldThoughts, http://www.feld.com/wp/archives/2006/02/whats-the-best-structure-for-a-pre-vc-investment.html (Feb. 25, 2006).

[65] *Id.*

[66] *See* Mike Platt PowerPoint presentation, "Silicon Flatirons—Angel Investing and the 'Light Preferred' Approach" (on file with the author).

[67] Feld, *supra* note 64.

[68] *Id*.; for more on these mechanics, *see* Appendix A.

[69] *Id*.

defined to protect both the investors and the entrepreneurs from any misunderstandings."[70]

The foundational aspects of angel investing—its role in entrepreneurial finance, its differences from venture capital, the variations in deal structure—can be complex in their own right and, indeed, these discrete topics have spawned their own body of inquiry from investors, entrepreneurs, lawyers, and academicians. Some of the most important aspects of angel investing, however, pertain to larger questions of capital formation, investor and entrepreneur sophistication, and potential solutions to these challenges.

II. Challenges in Angel Investing: A Range of Issues

Roundtable participants identified a variety of challenges related to angel investing, some of which pertain to deal structure and investment terms, others of which implicate larger questions of deal flow and capital formation. Two angel investing challenges with national relevance are (a) the angel investing paradox and (b) issues surrounding convertible debt and investor-entrepreneur incentive alignment more broadly; challenges with a Colorado-specific aspect include (c) building a bigger base of sophisticated angels, (d) improving deal flow (more deals with higher quality entrepreneurs), and (e) the bridge to nowhere problem (access to post-angel financing). Despite the complexity of these problems, they lend themselves to several potential solutions discussed in Section III.

A. The Angel Investing Paradox

As Ronald Gilson has observed, "All financial contracts respond to three central problems: uncertainty, information asymmetry, and opportunism in the form of agency costs."[71] Investing in early stage, high technology companies "presents these problems in an extreme form."[72] When an angel invests in a startup, the angel faces a variety of challenges that are arguably greater at the time of angel investment than they are at the time of venture capital investment. Transaction costs associated with due diligence can be higher for angels than for VCs (due diligence is part of the VC's day job), there is heightened uncertainty (the company is very early stage and hence much cannot be known about its prospects), and information asymmetries exist (the entrepreneur knows much more about his or her company than the angel investor does), thereby giving rise to potential agency costs (opportunistic behavior by the entrepreneur against the interests of the angel). The risks in angel investing are not limited to the uncertainty and risks of early-stage company development; Lori Hoberman has observed that even later venture capital investment—in many respects a sign of company promise—itself might pose a risk to angel investors: "'seed stage' investments clearly carry the greatest risks,

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[70] *See id.*

[71] *See, e.g.,* Gilson, *supra* note 53, at 1076.

[72] *See id*.

[but] they do not necessarily carry the greatest rewards, in that they are most exposed to cram-down by VCs in later rounds."[73] The apparent paradox about angel investing, then, is that investments are made at (or nearly at) the moment when uncertainty, information asymmetry, and the potential for agency costs are arguably highest, yet most angels obtain lighter and fewer contractual protections than do venture capitalists, who typically invest in companies after angels do.[74] Developing an argument based on financial risk theory, Geoff Roach has argued that angels violate one of the major ideas of the capital asset pricing model—that return from an asset should be proportional to the risk of holding that asset—by incurring (high) specific risk with the hope of earning above market returns.[75] Such high-risk investments, it would seem, merit more, not fewer, contractual protections.[76]

Despite these pressures, which one would assume give rise to contracts that are thoroughly protective of the angel investor, Darian Ibrahim suggests that the opposite is true: angel investment contracts are comparatively less protective of the investor than venture capital contracts.[77] Examples of diminished investor protections in angel contracts include: lack of staging of angel investments,[78] the use of common stock instead of preferred stock,[79] infrequently taking a board seat,[80] few negative covenants,[81] and infrequent use of exit rights.[82] Ibrahim is not alone in his identification of the relatively lightweight aspects of angel investment contracts. Scott Shane has observed that "relatively little angel investing involves the use of venture-capital like term sheet provisions."[83] Andrew Cable has also noted that "the cash-flow rights associated with [angels' preferred stock] are likely to be weaker than those associated with the stock typically issued to a VC fund," further remarking on the

[73] Lori S. Hoberman, *Show Me the Money! How to Structure the Best Venture Financing for an Early-Stage Company*, *in* Venture Capital 2004: Venture Creation, Management & Financing in the New "Post-Bubble" Market (PLI Corporate Law and Practice Course Handbook Series No. B-1457, 2004). "Cram down" is "extraordinary dilution, by reason of a round of financing, of a non-participating investor's percentage ownership" in the company. *Cram Down*, VCExperts, http://vcexperts.com/encyclopedia/glossary/124.

[74] Ibrahim, *supra* note 5, at 1407-08.

[75] Geoff Roach, *Is Angel Investing Worth the Effort? A Study of Keiretsu Forum*, 12 Venture Capital: An Int'l J. of Entrepreneurial Fin. 153, 154-55 (2010).

[76] *See, e.g.,* Gilson, *supra* note 53, at 1076.

[77] Ibrahim, *supra* note 5, at 1407-08.

[78] Andrew Wong, *Angel Finance: The Other Venture Capital,* Analysis Group, Inc at 18 (2002).

[79] Stephen Prowse, *Angel Investing and the Market for Angel Investments*, 22 J. Banking & Fin. 785 (1998). Although many contemporary sources note that angels often take preferred equity, common stock for angels is not unheard of. *See, e.g.,* Koss, *supra* note 62, at 3.

[80] Wong, *supra* note 78, at 15.

[81] Prowse, *supra* note 79, at 790.

[82] Wong, *supra* note 78, at 53; Ibrahim, *supra* note 5, at 1423 (citing Van Osnabrugge & Robinson).

[83] *See* Shane, *supra* note 11, at 31. For a different description of "high protection" and "low protection" contracts, *see* Peter Kelly & Michael Hay, *Business Angel Contracts: The Influence of Context*, 5 Venture Capital: An Int'l J. of Entrepreneurial Fin. 287, 291 (2003): "Tight" contracts imply that business angels both attach great importance to and include more contractual safeguards before investing. A "looser" contractual arrangement implies that business angels attach little importance to contractual safeguards and included fewer of them in their deal with the entrepreneur.

tendency of angel investors to "typically receive weaker control rights than VC funds."[84] John Orcutt also has found that, compared to VCs, angels also employ weaker monitoring mechanisms.[85] Orcutt asserts that many angels are content to receive common stock, rather than convertible preferred stock and its added protections against agency problems, and that they also regularly avoid detailed financing contracts.[86] "For less sophisticated angels," Orcutt comments, "their investment contracts are likely to omit even the most basic protections against agency problems or poor managerial performance."[87] Regarding control and incentives, Orcutt says that "angels are likely to control a smaller percentage of board seats than VC-fund investors and angels rarely use contractual management incentive schemes."[88]

A litany of reasons may explain why angel contracts are comparatively less protective of the investor than are VC contracts. Basing his argument in part on the suppositions of Andrew Wong,[89] Ibrahim posits three financial reasons for why angel investment contracts can be "simple" and, compared to VC financing contracts, scant on investor protections: First, the need for follow-on VC financing militates in favor of simple angel contracts;[90] venture capitalists do not want to invest a company that struck a complex angel deal that needs to be unwound for the VC to invest,[91] and overreaching angel deals reduce the likelihood of VC money.[92] Ibrahim does not address an alternative argument: that anticipation of later venture financing might drive angels to create simple contracts because "investors love precedent"—angels want to avoid a "new investor [who] says, 'I want what the last guy got, plus more.'"[93] Second, the informal, localized, and relationship-driven aspects of angel investing effectively substitute for venture capital contract protections.[94] As Prowse has contended, "the primary criterion that angels use to screen proposals is whether the entrepreneur is previously known and trusted by them or by an associate who they trust.[95] Ibrahim acknowledges

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[84] Cable, *supra* note 63, at 127 (citing Brent Goldfarb, Gerard Hoberg, David Kirsch & Alexander Triantis, Does Angel Participation Matter? An Analysis of Early Venture Financing (Robert H. Smith Sch. of Bus., Univ. of Md., Working Paper No. RHS-06-072, 2009), *available at* http://ssrn.com/abstract=1024186).

[85] John Orcutt, *Improving the Efficiency of the Angel Finance Market: A Proposal to Expand the Intermediary Role of Finders in the Private Capital Raising Setting*, 37 Ariz. St. L.J. 861 (2005).

[86] *Id*.

[87] *Id.*

[88] *Id.*

[89] *See* Wong, *supra* note 78, at 3-4 (Instead of typical VC-esque contractual mechanisms, angels use other control mechanisms: (a) entrepreneur retains larger share of company (reduces moral hazard); (b) angels syndicate risky investments (multiple angels invest); (c) geographic proximity (angels invest close to home); and (d) trust over formal control).

[90] Ibrahim, *supra* note 5, at 1428.

[91] *Id.* at 1408.

[92] *Id.*

[93] *See* Brad Feld & Jason Mendelson, Venture Deals: How to be Smarter than Your Lawyer or Venture Capitalist 58 (2011).

[94] Ibrahim, *supra* note 5, at 1431.

[95] Prowse, *supra* note 79, at 789.

that VC investments are also very relationship driven, but argues that the pressure to generate timely returns for limited partners "inevitably forces venture capitalists to sacrifice some of the intimacy and familiarity with [startups] that angels without downstream pressure enjoy."[96] Third, Ibrahim argues that the cost of contracting (determining, negotiating, monitoring, enforcing, and drafting contractual provisions) favors simplicity in angel contracts because there are lower dollar amounts at stake than in a typical venture capital deal.[97] Brad Feld has also noted that an angel investor's "light preferred equity" has lighter terms "due to the relatively low valuation associated with it."[98]

Nonfinancial rational reasons also may explain why angel contracts do not robustly protect angels: angels invest for the fun of staying engaged in startup companies and culture[99] or for the altruistic motivation of giving back to the entrepreneurial community.[100] Additionally, reputational constraints might prevent entrepreneurial opportunism at the expense of angels, thereby mitigating the importance of a highly protective angel investment contract.[101] Alternatively, angels may fall back on litigation (the specter of court sanctions against entrepreneurs) as a substitute for complex contractual protections.[102] Ibrahim suggests that it is unclear (at best) to what extent reputation or court sanctions are rational reasons to forego protective investment contracts.[103]

Ibrahim considers, but ultimately discredits, several other possible explanations for the simplicity of angel contracts: angels lack bargaining power over entrepreneurs, they protect themselves by investing in a portfolio of startups, or they are unsophisticated investors who are willing to settle for few protections because they do not know any better.[104] Ibrahim categorizes this last argument, that simple angel contracts are the doing of unsophisticated investors, as "conventional wisdom," but he argues that such an explanation suffers from two flaws: most angels are high net worth individuals qualifying as (sophisticated) accredited investors and most angels are overwhelmingly ex-entrepreneurs who understand startup investing.[105] Although Ibrahim's point is not unreasonable in the context of his larger argument, the experience of the angels in attendance at the Roundtable, many of whom acknowledged that they invested in companies with the expectation that those companies later take VC funding, would suggest that even accredited investors and ex-entrepreneurs (i.e., many angels) can still be unsophisticated in matters of angel investing. Indeed, a lack of investor sophistication is

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[96] Ibrahim, *supra* note 5, at 1432.

[97] *Id.* at 1433.

[98] Feld, *supra* note 64.

[99] Ibrahim, *supra* note 5, at 1439.

[100] *Id.* at 1440.

[101] *Id.* at 1436.

[102] Ibrahim, *supra* note 5, at 1437.

[103] *Id.*

[104] *Id.* at 1425-26.

[105] *Id.* at 1426-27.

precisely the point on which many Roundtable discussants focused their explanation for, and criticism of, simple angel contracts.

Roundtable discussion suggested a counterargument to Ibrahim's insistence that simple angel contracts are rationally designed to lure venture capital investment: sophisticated angels use more VC-like terms in their investment contracts, and a lack of protections in an angel investing contract may in fact be evidence of unsophisticated irrationality. Roundtable participant Nancy Pierce expounded this view, saying that she does not invest in companies because with "bad," unsophisticated contracts in place with angels. As Pierce put it, "a seed Series A without investor rights is garbage." Roundtable discussants' preference for and use of sophisticated deal terms suggests doubt about Ibrahim's contention that simple angel contracts are essentially rational. Richard Sudek's research bolsters the argument of Roundtable discussants that angel contracts with few investor protective features could be the result of lesser sophistication, claiming that "angels perform less due diligence than VCs, invest more opportunistically, rely more on instincts, and do not calculate internal rates of return."[106] Indeed, the experience and opinions of Roundtable participants would seem to suggest that low-protection angel contracts are the hallmark of an unsophisticated investor. Of course, even the sophisticated investors and lawyers in attendance discussed investment structures in terms of "light" preferred equity and convertible debt, which does not adequately resolve the angel investing paradox—even the sophisticated Roundtable angels appear to use protections that are not as dramatic or robust as the protections used by venture capitalists, even if those protections are more substantial than what Ibrahim suggests is common.[107]

Although additional empirical research might help answer the question of whether low-protection angel investment contracts signify a categorical difference from venture capital or merely evince lack of angel sophistication, the fundamental paradox remains: even among sophisticated angels using VC-esque investor protections, angel contracts do not appear to be as robustly protective of investors as the levels of uncertainty and risk would suggest. The persistence of the paradox—even sophisticated angels of the sort in attendance at the Roundtable admitted to not using full-scale VC terms—is perhaps validation for Ibrahim's larger point about maximizing opportunity for later VC investment, even as it throws into question Ibrahim's smaller claim that angel contracts "do not extract

[106] Richard Sudek, *Angel Investment Criteria*, 17 J. Small Business Strategy 89, 90 (2006-07).

[107] *See*, *e.g.*, Scott Shane, Angel Investing: A Report Prepared for the Federal Reserve Banks of Atlanta, Cleveland, Kansas City, Philadelphia, and Richmond 30 (2005), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1142687. Key terms in angel deals are fairly similar to VC terms, though "perhaps slightly less harsh."

any of the venture capitalists' common contract protections."[108] Perhaps to the delight of researchers in entrepreneurial finance, angel investing is fraught not only with this question, but also with other questions, both quantitative and qualitative, that implicate angel sophistication, deal structure, and the overall ecosystem of entrepreneurial finance.

B. Issues Presented by Convertible Debt and Incentive Alignment

The use of convertible debt is another challenge in the world of angel investing. As both scholarship and Roundtable discussion imply, convertible debt is a topic spurring considerable investor interest.[109] Some commentators, such as Mark Suster, have argued that, from the angel investor's perspective, convertible debt is not a preferable form of investment and that in most cases it signifies that the angel is not sophisticated.[110] Others, however, suggest that convertible debt can be a rational, sophisticated investment, particularly when a proper valuation of the company is difficult to know or negotiate.[111] Juxtaposed against the convertible debt skeptics like Suster are people like Scott Shane, who note that "some highly sophisticated accredited angel investors affiliated with organized angel groups" use convertible debt in angel investments.[112] Of course, terms like "sophisticated" and "not sophisticated," bandied about by commentators and Roundtable participants alike, are only as useful as the reasoning that undergirds application of such descriptions. A summary of Roundtable discussion, coupled with a brief overview of commentary from others, is useful in clarifying some of the potential problems that arise with convertible debt and whether convertible debt is, in fact, a sensible investment structure. The pros and cons of convertible debt demonstrate angel investing issues more broadly, including valuation questions, the need for follow-on financing, and the general sophistication (or lack thereof) of the base of angel investors in Colorado (a topic more fully addressed in Section II.C).

Mark Suster has suggested that unless an angel is in the rare position of having access to some of the hottest deals in the world (and perhaps might see reputational enhancement by being in such "hot" deals), the angel should "price"—i.e., invest in the form of equity, not convertible debt.[113] Suster

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[108] Ibrahim, *supra* note 5, at 1408; Roundtable discussion suggests that, if anything, Ibrahim probably overstates the categorical simplicity of angel investing contracts. As an interesting counterpoint to Roundtable participants' emphasis on the importance of investor protections in angel contracts, some months after the Roundtable, participant Jan Horsfall said that several startups in Colorado Springs have gone so far as to take crowdfunding for their ventures, entirely cutting out Colorado Springs angels who insisted upon using full-ratchet anti-dilution protections in proposed angel deals. This anecdote invites reflection on another type of unsophisticated Colorado angel: one who insists on draconian contractual protection to the detriment of healthy investor-entrepreneur relations and incentives.

[109] For additional discussion of convertible debt, including technical features like valuation caps, see Appendix A.

[110] *See* Suster, *supra* note 8.

[111] Multiple Roundtable participants echoed this sentiment.

[112] Shane, *supra* note 11, at 8 (citing Wong).

[113] Suster, *supra* note 8.

goes so far as to suggest that "most convertible debt deals by angels are done by people who are not [professional] investors"[114] and that convertible debt angel investors either "don't know any better" or want access to "hot" deals that they could not invest in otherwise using an equity structure.[115] Suster avers that angel investors should invest with equity as opposed to debt because angel investment "helps the entrepreneur get through a difficult period" and an angel investor faces considerable risk due to the uncertainty of follow-on VC financing.[116] As Suster would have it, entrepreneurs should take priced equity rounds (which are likely to come from sophisticated angels poised to connect and assist the entrepreneur in ways beyond mere capital investment) instead of convertible debt, which is likely to come from unsophisticated investors unable to meaningfully help the entrepreneur beyond capital invested.[117] Roundtable participant Jan Horsfall largely echoed Suster's view, observing that "there is more dumb money in a convertible debt [angel] deal" than in an equity deal; Horsfall also speculated whether, if macroeconomic conditions improved, more angels would do equity deals because they could better afford lawyers to draft the investment contracts.[118] Suster acknowledges that he is only one voice among many on the issue of convertible debt,[119] but his argument highlights an important underlying question in angel investing: are angels adequately compensated for the degree of risk and uncertainty they incur in doing a deal? Suster maintains that equity instead of convertible debt better reflects this risk, but goes one step further to suggest that barring certain rare circumstances—having "very deep pockets" or investing in the midst of an intense bull market where companies are quick to exit—angel investing is "a sucker's bet."[120] Fred Wilson has voiced similar skepticism about convertible debt, stating, "I also do not like to purchase or own convertible debt myself. I want to know how much of a company I've purchased and I do not like taking equity risk and getting debt returns."[121]

Roundtable presenter and participant Mark Weakley noted that convertible debt can create incentive misalignment between the angel and company founder: if an angel invests in a company using convertible debt, then at the next financing round the company founder likely will want a higher pre-money valuation than the angel will want because the angel wants his or her debt to convert

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[114] *Id.*
[115] *Id.*
[116] *Id.*
[117] *Id.*
[118] *See also* Feld, *supra* note 64. The "preferred equity approach is fairer to the investors as they'll more clearly be participating in the upside on terms that are agreed to early in the life of the company."
[119] *See* Suster, *supra* note 8.
[120] *Id.*
[121] Fred Wilson, *Financing Options: Convertible Debt*, AVC, July 11, 2011, http://www.avc.com/a_vc/2011/07/financing-options-convertible-debt.html. ("However, later on in a company's life convertible debt can make a lot of sense..." [anecdote recalling a company needing one last round of financing; company took convertible debt instead of equity, "built the company for another year, sold it and did much better in the end because they avoided the dilution of the last round."]).

to equity at the lowest valuation possible in order to maximize the angel's ownership stake in the company.[122] (The company founder, on the other hand, is not *converting* to equity but already owns a number of shares and options, and would stand to own a more valuable stake in the company as pre-money valuation increases.)[123] In other words, where a company has a convertible debt angel investor whose debt is set to convert to equity upon the next round of financing, the angel and company founder may want different pre-money valuations of the company, which can impact negotiations and relationships among the company's investors. Brad Bernthal was quick to note in the Roundtable discussion, however, that if the deal provides for a conversion cap, and if the angel plans to participate in the next round of investment, the potential misalignment is reduced in severity.

Issues of incentive alignment are not limited to convertible debt; scholars and Roundtable participants alike have discussed incentive alignment as a salient consideration in any angel investing deal, noting that if investor and entrepreneur incentives too widely diverge, deals can fall apart. As Stephen Prowse has observed, "the main incentive mechanism used by angels is managerial ownership of equity. Angels like to see managers with large blocks of stock in the company, and appear happiest when the managers' financial survival depends on the company's success."[124] Roundtable participants similarly noted the importance of reserving sufficient equity in the company to entice later venture capital investment[125] and to motivate the entrepreneur to continue working hard to realize a valuable company exit. As Mike Platt put it, "if you can't give 25-40% in a later round for venture capitalists to own," then angels have taken too much.[126] Illustrating the interest that angels have in aligning their interests with the interests of entrepreneurs (and angels' interest in maximizing the chances for follow-on venture capital financing), John Ives noted that angels should not strive for too much control or ownership of the company lest they undermine entrepreneur motivation to continue working hard to build company value. As Ives put it, "you do not want angels to damage the cap table."

Another interesting alignment issue is the disparity in importance that most angels ascribe to a deal versus how much importance the entrepreneur ascribes to a deal. Various Roundtable participants stressed that angel investing is not their full-time job, yet for most serious entrepreneurs, building (and obtaining financing for) their companies is. Yoav Lurie, Roundtable participant and CEO of Simple Energy, mentioned an example of this phenomenon: Aventura CEO Howard Diamond (also at the Roundtable) was interested in investing in an angel round that Simple Energy closed in 2011. Just

[122] *See* Weakley, *supra* note 10.

[123] *See id*.

[124] Prowse, *supra* note 79.

[125] *See*, *e.g*., Feld & Mendelson, *supra* note 93, at Introduction 2, "Many companies end up with multiple venture capitalists who invest in the company at different points in time, resulting in different ownership percentages, varying rights, and diverging motivations."

[126] In follow-up correspondence, John Howard somewhat contextualized the alignment issue, noting that incentive alignment is not unique to angel investing: "every business needs to align investors with management and employees. This is a fundamental problem in all businesses whether it has no profits or billions."

before the round closed, Diamond was extraordinarily busy with his own company and did not have time to make the investment in Simple Energy. As Lurie described the situation, getting Diamond to invest in Simple Energy was one of Lurie's absolute highest priorities, but for Diamond, it was, understandably, a much lower priority.

Jason Mendelson has observed that convertible debt has several advantages when compared to a preferred equity investment: convertible debt deals are cheaper to consummate and therefore quicker to close, the parties need not lock in a company valuation at the time of investment, and the angel investor can more easily be bought out (should the need arise) simply by selling his or her notes to another investor.[127] Mendelson also notes an aspect of convertible debt that is less favorable, at least from the perspective of the company founder: debt holders have rights that equity holders do not. Debt holders can call their loan and request their money back, which means that they can potentially shut down the company if it does not have cash to repay the debt (subject, of course, to the deal negotiated).[128] Multiple Roundtable participants agreed that, irrespective of the ultimate challenges presented by it, convertible debt enables parties to punt on the question of company valuation and quickly provide the company with capital; because the amount of money is invested in the form of debt, the company's valuation need not be discussed because the amount invested does not immediately represent a defined ownership stake in the company.[129]

Building on the topic of company valuation as invoked in the Roundtable, participant Howard Diamond went so far as to argue that, because of the uncertainty inherent in early stage, unproven companies, valuations are "a totally hypothetical discussion," even if equity is used and that the advantage of convertible debt is that parties can sidestep such a hypothetical discussion. In follow up correspondence after the Roundtable, John Howard drew a parallel to corporate restructuring to offer a counterpoint to Roundtable sentiment that startup valuation is a uniquely challenging problem, maintaining that "in a turnaround, you have to value a company not on an absence of profit, but on the fact [the company is] losing millions, tens of millions, or hundreds of millions of dollars; in a turnaround you structure equity and debt based on all the same factors discussed" at the Roundtable. Howard's point suggests that further analogous comparisons of angel investing to other asset classes

[127] Jason Mendelson, *Should Entrepreneurs Be Worried About Convertible notes as a First Financing Event?*, http://www.askthevc.com/wp/archives/2007/06/should-entrepreneurs-be-worried-about-convertible-notes-as-a-first-financing-event.html (June 13, 2007); these advantages are considered from the company founder's perspective, though they arguably are advantages from the perspective of the angel investor as well.

[128] *Id*.

[129] *See*, *e.g*., Weakley, *supra* note 10. Of course, negotiating the valuation caps in a convertible debt deal still implicates company valuation in a sense, because the cap needs to be within a certain band of valuation in order for both the entrepreneurs and angels to agree to it.

might yield improved understanding of angel investing challenges and solutions.[130] In addition to the utility of convertible debt in avoiding valuation questions between entrepreneurs and investors, other contractual features can make convertible debt additionally appealing as an angel investment structure. The use of certain provisions like valuation caps renders convertible debt more similar to equity than it would be otherwise because such caps provide the convertible debt investor with compensation for investing in the company very early: even if the company's valuation at the time of the next financing is higher than the valuation cap, the convertible debt converts to equity as if the valuation were set at the cap, thus rewarding the convertible debt investor with more shares.[131] Nancy Pierce similarly remarked that she prefers to do Series A equity investments, but is not categorically averse to doing convertible debt investments that contain a valuation cap or price discount. She also noted that there is increasing convergence, in terms of both economics and control provisions, between convertible debt and equity deals.

Although Roundtable discussion was not decidedly pro- or anti-convertible debt, the diversity of opinion on the issue illuminates one of the benefits of convertible debt: reducing transaction costs and uncertainty. Mike Platt commented that an equity round with multiple angels "does not work without good [angel] leadership" and that one of the useful aspects of convertible debt is that it enables more straightforward angel group investing that permits a more sophisticated later investor to adjust the company's capitalization table down the road. Yoav Lurie echoed Platt's comments, saying that in Simple Energy's own angel deal, negotiation over company valuation was a big issue for investors, and that had there been a strong lead investor/negotiator among the angels who invested in Simple Energy, the deal would have been for equity, not convertible debt. Illustrating the importance that company valuation seems to have in determining whether angels invest via equity or debt, Dave DuPont, CEO and Founder of TeamSnap, remarked that his company took convertible debt investments "because no one had any idea" of the company's valuation. Another investor in attendance at the Roundtable, Jody Shepherd, recalled being told by certain companies seeking angel investment that they would take on equity investors if he would lead the round. The comments from Platt and from the assorted entrepreneurs and investors identify several key considerations in angel investing: attempting to minimize transaction costs (without good leadership, multiple "equity" angels can be complicated), investor sophistication (ability to comfortably negotiate company valuation and lead an angel group investment), and avoiding uncertainty (questions of company valuation should not create messy haggling over the capitalization table).

Of course, not all Roundtable participants were as sanguine about convertible debt.

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[130] *See also* email from Vic Fleischer, Associate Professor of Law, University of Colorado Law School (Dec. 6, 2011) (on file with the author): "There are a couple of ways that angel investing can have more extreme versions of these familiar challenges; some founders have no track record, and the business model more often turns on technological changes that are uncertain and more difficult to quantify."

[131] *See*, *e.g.*, Mendelson, *supra* note 127.

Roundtable participant Mark Wiranowski observed in follow up comments that excessive convertible debt can discourage Series A equity investment for two related reasons. First, the debt will dilute the equity stake received by the Series A investors. Second, the company may need considerable cash by the time that it raises a Series A, but the more cash put in by the Series A, the more the debt will dilute the Series A. Wiranowski noted that as a company raises more convertible debt to increase its "runway," company valuation has a longer timeframe to rise, meaning that valuations at the time of Series A investment are likely to exceed the valuation cap in the convertible note, thus enabling the convertible debt holder to convert to equity at a lower effective price than the Series A equity investors get.[132] The lower effective price of conversion enjoyed by the convertible debt holder thus reduces the ownership stake that the Series A investors take, which in turn diminishes their incentives to invest in the company. On the other hand, if the Series A investors keep the investment (and therefore the pre-money valuation) small, the company may not get enough cash to grow to a Series B. Roundtable participant Rob Delwo further remarked on this issue, noting his concern that the size of convertible notes the companies make could negatively affect their ability to raise capital. These comments, valuable in their own right, also further instantiate the importance of follow-on financing as an angel investing consideration. Just as the bridge to nowhere problem, by its very nature, evinces the symbiotic relationship that angel investing and venture capital investing have (some angels are concerned that their investment will die on the vine due to a lack of follow on venture capital), concerns about convertible debt implicate the same overarching issue.

Although Roundtable discussion about convertible debt and how it compares to equity investment yields insight into some of the larger considerations inherent to angel investing (valuation, incentive alignment, follow-on financing), several participants emphasized a broader argument: analyzing convertible debt and how it compares to equity is, in a sense, irrelevant. Howard Diamond was skeptical altogether on the merit of the "convertible debt versus equity" debate, observing that equity deals can be good and bad, and convertible debt deals can be good and bad, further asserting that the equity/debt comparison ultimately does not yield much valuable insight about angel investing. Nancy Pierce concurred, saying that, ultimately, successful angel investments, whether equity or debt, come down to how well the people involved build company value. Roundtable participant Tom Keller further pushed the point, contending that an angel's decision to invest is not predicated on the company's valuation or whether the investment should be in the form of debt or equity. Rather, the decision is predicated on the company's CEO persuading the angel to invest capital (in whatever form) to the company. Keller further suggested that the real value of the Roundtable discussion was not in the technical aspects of debt and equity angel deals, but in the larger vision and insight that Roundtable participants could have for improving the overall angel investing climate in Colorado. Keller's comment spurred assent from multiple participants that either structure (debt or equity)

[132] *See also* Mendelson, *supra* note 127.

must ultimately align incentives between investors and entrepreneurs. Indeed, the general agreement among participants that the issue of incentive alignment, which underlies both debt and equity, is fundamentally important, echoes commentary from Jason Mendelson that the pros and cons of a deal structure (convertible debt or equity) ultimately depend on the specific terms negotiated.[133]

Although the convertible debt discussion at the Roundtable was engaging and illustrative of larger concerns in angel investing, two repeated contentions—that convertible debt is more typically "dumb money" and that unsophisticated angels tend to shy away from company valuation (and hence from equity investments)—implicate another challenge in angel investing, one that has particular importance for Colorado: how to build and deepen a base of sophisticated angel investors.

C. Building a Larger Base of Sophisticated Angels

Roundtable participants loosely identified several weaknesses in the Colorado angel scene, all of which implicate the larger perception of a general lack of sophistication among angel investors in Colorado. In broad strokes, Roundtable participants lamented two different types of unsophisticated angel behavior in Colorado: (a) at the tactical level, there is a lack of investor-protective deal terms and (b) at the strategic level, many high new worth individuals do not understand the broader implications of a healthy angel investment ecosystem and the attendant company creation that it nurtures. Roundtable participants also noted some untapped potential in Colorado's base of possible angel investors. As Mike Platt noted, "this community has more individual wealth than is represented by angel capital investments." Although Section II.A above addresses the broader Roundtable sentiment that a lack of investor-protective deal terms evinces a lack of angel sophistication, an important aspect of this criticism is that most Roundtable participants opined that such a lack of sophistication is common in Colorado. As Nancy Pierce put it, when comparing the degree of investor protection in east or west coast angel deals to angel deals in Colorado, "Colorado angel investing seems infantile." Pierce's primary criticism—that she has decided not to invest in companies because they had "bad," unsophisticated contracts in place with angels—was in reference to Colorado angel deals. Jan Horsfall further commented that Colorado angels often invest using "bad paperwork" because they cannot afford (or will not pay) for good lawyers to review the investment documents.

Beyond the issue of sufficient contractual protection for angels, participants also discussed the apparent lack of a broader investing competence or long-term vision among many Colorado angels. As Horsfall put it, the majority of Colorado angels "don't understand angel investing, they don't know how to ride along in a round of multiple investors, and they don't know how angel investing impacts the broader entrepreneurial community."[134] Mike Platt offered further criticism, suggesting

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[133] Mendelson, *supra* note 127.

[134] Horsfall has separately blogged that angel investment serves an important community function: it is "private investment in our own local businesses." Horsfall, *supra* note 4.

that Colorado suffers from a lack of good angel leadership, and, more broadly, from a lack of a larger ecosystem of angels. Better information sharing could facilitate a larger, healthier ecosystem, Platt implied, which would help entrepreneurs better manage the angel investments that they take and better streamline deal mechanics among angels themselves. Although not in attendance at the Roundtable discussion, Colorado-based venture capitalist Joe Zell offered another perspective on angel sophistication in Colorado, noting that he is "shocked" at companies receiving angel financing not from active (sophisticated) Boulder angels, but from angels without appropriate experience and training in this area of investing.[135] As Zell framed the issue, he has seen many Colorado companies take angel money from unsophisticated investors who often agree to terms, structures, and valuations that are inappropriate to enable future institutional fundraising. Perhaps further complicating the picture about angel investing in Colorado, Zell added that many of these less sophisticated angels may be actively investing in early stage deals that some of Colorado's more sophisticated angels do not know about, thereby missing the opportunity to work with experienced angels that could help these less savvy angels improve the deals in which they participate.

Drawing on his experience with other asset classes, John Howard offered an investing guideline showing how the presence of unsophisticated investors can actually disincentivize sophisticated angels from doing more deals: "know who you invest with" and "don't get into deals with desperate or ignorant people." As Howard put it, "I'm not investing in an angel deal or any other deal no matter how good the product or service where I don't believe in the management, *the other investors and the* [deal] *structure*."

The perceived scarcity of sophisticated angels in Colorado may very well be a long-term challenge facing the Colorado entrepreneurial ecosystem, but Roundtable participants focused as much, if not more, attention on another problem: improving high-quality angel deal flow and due diligence.

D. Improving Angel Deal Flow and Due Diligence

Roundtable participants widely expressed interest in finding more high-quality, Colorado-based deals in which to invest. The issue of high-quality Colorado angel deals touched upon two main questions. First, are better information sharing or more/bigger angel groups adequate solutions to improved deal flow and due diligence? Second, what percentage of promising Colorado companies worthy of angel investment actually receive funding, and how can we collect data on that question?

Roundtable participants speculated on a few ways to streamline the angel investing process for Colorado angels so that they could reduce time spent on due diligence for any one company and

[135] Several experienced investors and entrepreneurs, including Zell, David Cohen, Brad Feld, Dave Jilk, and Nancy Pierce, spoke about angel investing at the Silicon Flatirons Entrepreneurship Initiative Board meeting held in early December, 2011.

gain exposure to a larger number of potential deals. Bret Fund wondered if angels might get more deals done with a process or formal organization reducing the amount of due diligence that any one angel must perform to make an investment decision. Acknowledging that some angels, like Howard Diamond, do not have much free time to do thorough due diligence, Fund proffered angel groups as a potentially valuable mechanism to mitigate the due diligence challenges that individual angels may face. Tom Keller similarly conceded that time constraints are an issue for angels in terms of both due diligence and deal flow more generally, and that there must be a more efficient way to get deals done. "Angel investing is not my day job, it's a hobby, and most of my deals are word of mouth in what is a very illiquid market," Keller said. Mike Platt's comments about a potential solution to the lack of angel sophistication were similarly on point regarding improving angel deal flow: a broader network of angels sharing information could help entrepreneurs better streamline deal mechanics among angels.

Scholarship on angel investing yields additional insight into the possibility of angel group investing as a solution offering improved deal flow, better due diligence, and even investor-protective contracts of the sort preferred by most Roundtable participants. Darian Ibrahim notes that angels likely form into groups for a "steadier stream of deal flow, increased opportunities for interaction with other angels and venture capitalists, the chance to fund larger deals through [resource pooling], and the ability to invest in amounts large enough to justify the transaction costs of preferred stock."[136] Indeed, the Angel Capital Association notes that its membership includes more than 160 angel groups and 20 affiliate organizations across North America, representing more than 7,000 accredited investors.[137] Positing that "a radical transformation in angel investing has begun," Ibrahim maintains that "angels are increasingly abandoning informal operation in favor of professional organization."[138] The angel investing contracts seen in these groups, Ibrahim notes, "closely resemble early-stage venture capital contracts."[139] Ibrahim offers four explanations for why these angel group contracts are more "VC" in nature. First, angel groups can be more "aggressive" in their investment contracts because they are "more professional" in nature than individual angels, they tend to invest higher amounts of capital, and they tend to invest at slightly later stages in companies' life cycles—qualities that all resemble early-stage venture capital.[140] Second, the "arms-length" nature of the relationship between angel groups and startup companies favors more rigid contractual provisions to account for the heightened uncertainty, information asymmetry, and agency costs that accompany this greater "relational distance."[141] Third, the higher transaction costs inherent in more robust investment contracts are justified by higher

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[136] Ibrahim, *supra* note 5, at 1443.

[137] Angel Capital Association, http://www.angelcapitalassociation.org/data/Documents/ACA%20Benefits%202012.pdf.

[138] Ibrahim, *supra* note 5, at 1409.

[139] *Id*.

[140] *Id.* at 1410.

[141] *Id.*

amounts of capital invested.[142] Fourth, angel groups derive private benefits that are not hindered by the use of detailed investment contracts: perhaps more than venture development, "angels want to meet other angels."[143] Ibrahim's fourth explanation for the growth in angel groups—that angels want to meet other angels—was echoed by another sophisticated Colorado-based entrepreneur, Dave Jilk. Although Jilk was not in attendance at the Roundtable, he speculated that some of the challenges in improving Colorado angel deal flow exist because people have focused on connecting angels with entrepreneurs, when "maybe the real connection is to find ways to connect angels to angels." An endeavor emphasizing angel-to-angel connections, Jilk suggested, might better cohere the base of Colorado investors and would-be investors to do more deals.

The potential merits (and downsides) of angel groups as a solution to improved deal flow and due diligence are further discussed below in Section III.B. The insistence of Roundtable participants that better deal flow is an important challenge in Colorado angel investing implicates another challenge: the bridge to nowhere problem.

E. The Bridge to Nowhere Problem

Brad Bernthal observed that angel investing may be particularly important in Colorado, not only for the role of angel investing as a bridge to venture capital, but also because there is not currently a lot of venture capital activity in Colorado.[144] As described in the introduction, the decline in Colorado-based VC funds implicates a "bridge to nowhere" problem for angel investing: if angels invest in Colorado startups but a scarcity of Colorado-based VC funds means that Colorado startups either fail or move to the location of the out-of-state VC that funds them, then from the perspective of the angel, angel investing in Colorado becomes even more uncertain and hence, riskier.

In Bernthal's estimation, angel investing may indeed give companies a longer runway to become viable, revenue-generating companies, but a lengthened runway may be irrelevant if the shortage of Colorado venture capital ultimately means a higher number of angel-funded companies never make it to acquisition or IPO. Mike Platt echoed Bernthal's concern, acknowledging that there "probably are companies that should be funded that aren't getting funded" in Colorado and that Boulder has a vibrant angel scene, but only a handful of major VC players. Yoav Lurie and Howard Diamond similarly acknowledged the venture capital problem in Colorado, invoking the experience of the company Foodzie, a Colorado company that did not get local VC funding, instead took California VC money, and moved to California when it got funded.[145] An entrepreneur in private dialogue has identified a related problem that the relative scarcity of tier 1 Colorado venture capital firms poses for

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[142] *Id.*

[143] *Id.* at 1450.

[144] *See supra* note 13.

[145] *See Foodzie Moved to San Francisco*, Foodzie, http://foodzie.com/blog/2009/02/foodzie-moved-to-san-francisco/ (Feb. 5, 2009): "We also just raised capital with about 80% of our investors located out in the Bay Area."

Colorado startups: if they do not get funded by one of the small number of highly reputable venture investors, they are tainted if and when they seek venture capital from outside Colorado. Another Colorado entrepreneur has acknowledged as much, saying that "most of Colorado has very weak local early stage investing; angel investing has sustained early stage activity because there is no venture capital activity in many places" in the state.

Angel investing clearly faces a variety of challenges, both systemically at the national level and in Colorado specifically. Although it is beyond the scope of this report to exhaustively prescribe all possible solutions to these challenges, a few propositions could have positive impact.

III. Solutions: Angel Education and Information Sharing

As much as the Roundtable emphasized challenges facing angel investing in Colorado, participants also considered changes that could help make angel investing a more robust answer to entrepreneurial financial needs in Colorado's Front Range over the next five to ten years. Although Roundtable participants did not propose a clear-cut solution for every major type of angel investing challenge, two themes emerged as potential solutions to the related challenges of expanding the base of sophisticated Colorado angels and improving angel deal flow and due diligence: deal term standardization and improved angel education and information sharing.

A. Deal Term Standardization

One potential solution to reducing angel investing transaction costs and encouraging angels to use sensible contractual protections is deal term standardization. Multiple Roundtable participants remarked on the frequently low quality deal documents used by many would-be angels and company founders in Colorado, implying that the standardization of deal documents would not only help streamline angel deals from a transaction cost perspective, but also would help improve the overall quality of angel deals done in the state. Examples of standardization exist outside of Colorado: Scott Shane has done research suggesting that some angels just use boilerplate investing terms downloaded from National Venture Capital Association "to prepare the ventures . . . for later rounds of investment by venture capitalists."[146]

Invoking the experience of his own company's acceptance of angel financing in 2011, Simple Energy CEO Yoav Lurie maintained that better uniformity of documents would have made the consummation of the round considerably less complicated. Expressing a desire for more readily available "industry standard" angel financing documents, Lurie commented that "when every deal is new and everyone must put on their lawyer hat for each deal, it makes things more difficult for

[146] Shane, *supra* note 107.

all parties involved."[147] Mike Platt similarly expressed interest in improved contract standardization, though he was careful to point out that for every investor wanting standardized deal documents, a lawyer might argue why standardization is hard to achieve. Platt's broader point, however, was that standardization is an important consideration that, if achieved, would generally improve contractual terms and lower "lawyering expenses" for both equity and debt deals.

Although the mechanisms by which deal term standardization occurs at a systemic level were beyond the purview of the Roundtable discussion, one of the pillars of Colorado's entrepreneurial community, TechStars, suggests a useful precedent for how to more widely disseminate standardized deal terms: making documents available online.[148] Furthermore, organizations that straddle the worlds of education and professional entrepreneurship, such as Silicon Flatirons Center[149] and Startup Colorado,[150] could play a useful role in more expansive knowledge transmission through online education and in-person classes or seminars.

B. Angel Education and Angel Groups

As noted above in Section II.D, a variety of Roundtable participants expressed interest in the potential for angel group formation to at least partially resolve the problems of angel investing sophistication and deal flow. More precisely, some speculate that angel groups can reduce search costs (help angels find more deals quickly), due diligence and negotiation costs, and post-investment monitoring costs. Indeed, angels increasingly are abandoning informal operation in favor of organization into regional angel investor groups.[151]

A few Roundtable participants described their experience in angel investing groups, ranging from smaller groups (Boulder Angels—eight angels) to the much larger ones (CommonAngels in Boston, with nearly 100 angels). John Ives, a member of Boulder Angels, briefly outlined the structure of Boulder Angels: the group contains 8 people, and each investor makes, on average, 1.5 new investments per year. Investment amounts are typically $250,000 to $1.2 million. Further reflective of Roundtable sentiment that more sophisticated angels invest with VC-like terms, Ives noted that Boulder Angels stages its investments, usually does equity rounds, and usually takes a board

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[147] Of course, others in attendance, such as Keith Olivia, countered that not all deals are alike and many angel deals lend themselves to "creative" (i.e., customized) contracting solutions.

[148] David Cohen, *TechStars Model Seed Funding Documents*, TechStars Blog, http://www.techstars.com/techstars-model-seed-funding-documents/ (Feb. 7, 2009).

[149] Silicon Flatirons Center at CU Boulder pursues three major goals: to elevate debate around technology policy issues, to inspire student interest in technology and entrepreneurship, and to facilitate networking, the development of "human capital" and the promotion of entrepreneurship in the Colorado technology community. *See* Silicon Flatirons Center, www.silicon-flatirons.org.

[150] Startup Colorado is one of the startup regions under the Startup America Partnership. It is a statewide initiative to spur new company creation in Colorado and deepen the communal backdrop out of which new companies emerge. *See* Startup Colorado, www.startupcolorado.com.

[151] Darian Ibrahim, *Financing the Next Silicon Valley*, 87 Wash. U. L. Rev. 717 (2010).

seat on any company in which the group invests. Furthermore, Boulder Angels consistently obtains observation rights that persist through subsequent rounds, with monitoring activities shared among members of the group. Perhaps most tellingly regarding the broader viability of angel groups as a solution to angel investing challenges, Ives identified one of the reasons why Boulder Angels remains small: he wants "to trust the people" he invests with and there is "too much uncertainty in larger angel groups."[152] Ives's comment identifies a potential flaw with angel groups as a solution to angel investing challenges: they may need to be small enough to ensure adequate trust among group members, but the smaller and more discrete the groups are, the harder it may be to spur effective technical knowledge transmission.

More bullish on angel groups than many in attendance at the Roundtable, participant Steve Pearse commented on his experience with the CommonAngels[153] in the Boston area, offering that the value of group discussions of the sort enjoyed by Roundtable participants is for a larger number of angel investors to learn about investing "screwups" to avoid. Angel groups, Pearse stated, can enable angels to learn about "the things to avoid blowing in angel deals." He further speculated that "the pitfalls you want to avoid as an angel investor can be solved with size; if you grow a group large enough in terms of group buying capability, getting legal fees down, getting professional management to screen investments—that might [produce a net positive effect on increasing the number of angels and angel investments]."[154] One potentially useful structural aspect of angel groups, Pearse explained, is that a group can hire a full-time director who hosts monthly angel meetings in which 75-80 vetted angels come for breakfast and see a TechStars-like pitch by five or six companies over a few hours.

Brad Feld was not a participant in the Roundtable, but when later confronted with the question of angel groups in Colorado, he argued that there should not be a formal structure for angel investors and succinctly stated: "Don't do it." Feld expressed skepticism about better-known angel groups in Colorado, doubting their value and criticizing both their formality and general lack of actual investments. Feld's comments dovetail with a study prepared by the MIT Entrepreneurship Center, citing the opinion of venture capitalists that angel groups are little more than "dinner clubs" that do

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[152] To be sure, angel groups can be set up in ways that discourages more investment. Scott Shane has identified data demonstrating that angel groups that are required to invest in the state in which they are domiciled and angel groups that seek to invest in companies within four hours drive of their location have significantly fewer investors than other angel groups. *See* Scott Shane, *Angel Groups: An Examination of the Angel Capital Association Survey* (2008), *available at* http://www.angelcapitaleducation.org/data/Documents/Resources/AngelCapitalEducation/Scott_Shane_-_ACA_Data_Analysis_of_the_ACA_Survey.pdf.

[153] *See* Common Angels, www.commonangels.com: "CommonAngels is an angel group focused on making investments in early-stage information technology startups...In addition to our angel group, we have a micro-cap venture fund, managed by our two managing directors, that makes its own investments in seed-stage companies and adds to the capital from the group in early stage opportunities."

[154] One unexplored consideration regarding angel groups (particularly the "group buying" concept advanced by Pearse) is whether an angel investing group creates any issues under the Sherman Antitrust Act.

not sufficiently leverage their expertise or connections.[155] Another potential challenge with groups is the possibility that "contractual frameworks become quite complex when there is a need for several investors to come to agreement both amongst themselves and with the entrepreneur."[156]

Nancy Pierce, present at both the Roundtable and at the separate discussion with Brad Feld, expressed a highly Darwinian view on the ultimate utility of angel groups and the ostensibly reduced expense for due diligence and deal flow that they might offer: "If someone cannot get a personal introduction to me through someone I know, I don't want to talk to them." Pierce's comment certainly suggests an admittedly more critical view of the angel group debate: the absence or relatively thin presence of angel groups may ultimately spur a "survival of the fittest" culture in Colorado angel investing. Feld was more positive, however, on angellist.co, which he praised as "a process you would want" because it is "not angels referring stuff to one another, but a system in which [investors] can follow other angels [that they] are interested in."[157] As Feld summarized his views on angel groups, he said that the people that are actively investing in companies are the most valuable connections, and those people often do not participate in some of Colorado's more publicly known angel groups. David Cohen, present at the same discussion attended by Brad Feld, invoked another potentially useful model to improve connections among Colorado angel investors—the Open Angel Forum—in which a small group of angel investors (who need to have done at least four investments in the previous year to participate) have dinner with entrepreneurs three times per year.[158] Cohen suggested that this model could be a base for recruiting new investors to learn from experienced angel investors.

Researchers also have examined the potential for angel groups to resolve angel investing challenges. Kerr, Lerner, and Schoar have remarked that angel groups increasingly are structured as semi-formal networks of high net worth individuals who meet in regular intervals.[159] In these groups, the researchers posit, angels can pool resources to make larger investments, each angel can invest smaller amounts in individual ventures, allowing for diversification and participation in a wider range of opportunities, and costly due diligence can be performed as a group.[160] Such groups frequently include some of the most sophisticated and active angel investors in a given region, and because they are more visible to entrepreneurs, they lead to better deal flow.[161]

Of course, whatever the ultimate utility of angel groups or deal standardization, the rubber

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155 MIT Entrepreneurship Study, MIT Entrepreneurship Center, Venture Support Systems Project: Angel Investors 64 (2000), http://www.angelcapitaleducation.org/data/Documents/Resources/AngelCapitalEducation/Research VentureSupportProject.pdf.

156 Kelly & Hay, *supra* note 83, at 303.

157 One Roundtable participant admitted to frequently investing in a company when Feld does.

158 *See* Open Angel Forum, www.openangelforum.com.

159 William Kerr, Josh Lerner, & Antoinette Schoar, *The Consequences of Entrepreneurial Finance: A Regression Discontinuity Analysis* (HBS Working Paper 10-086, 2010).

160 *Id.*

161 *Id.*

meets the road on actual execution. The leaders of such efforts perhaps have not yet surfaced, but the base of Colorado's existing successful entrepreneurs and investors, as well the state's various entrepreneurial organizations, are a natural starting point to catalyze such leadership.

C. Additional Thoughts on Potential Solutions

In addition to specific leadership opportunity for angel investing groups and deal term standardization, other concepts exist that might prove useful in tackling some of the issues around angel investing in Colorado. To the extent that, in the words of Dave Jilk, "angels want to meet other angels," non-profit organizations like Silicon Flatirons Center[162] and Startup Colorado[163] could play a role as useful conduits enabling angels to meet angels (and angels to meet entrepreneurs). Especially promising events that could help in this role include the Boulder/Denver New Tech Meetup[164] (a monthly meetup of technologists and business people interested in networking and learning more about technology entrepreneurship in Denver and Boulder), various meetups in Colorado Springs[165] and Denver,[166] and the Info Tech Forum (a new program from Silicon Flatirons and the Innovation Center of the Rockies bringing together CU-Boulder's best STEM researchers, professors, and technology entrepreneurs), to name a few. To the extent that these groups and events facilitate the conversations and relationships out of which ecosystem leadership emerges, they may play a useful role in convening Colorado's entrepreneurs and investors to more meaningfully cohere into a developed base for angel investing.

IV. Conclusion

Whether construed as an issue of regional capital formation and economic growth, technical contract design, entrepreneurial community lifeblood, or the challenge of collective action, angel investing is a vital component of entrepreneurial finance, both nationally and in Colorado. It is an asset class with fundamental import for Colorado's entrepreneurial trajectory, and it merits further quantitative and qualitative study, inquiry, and action. Some of the challenges of angel investing—more widespread contract sophistication, the need for a larger base of sophisticated angels, improved deal flow, and solutions to the bridge to nowhere problem—are indeed serious. Widespread deal term

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[162] Silicon Flatirons Center at CU Boulder pursues three major goals: to elevate debate around technology policy issues, to inspire student interest in technology and entrepreneurship, and to facilitate networking, the development of "human capital" and the promotion of entrepreneurship in the Colorado technology community. *See* Silicon Flatirons Center, www.silicon-flatirons.org.

[163] Startup Colorado is one of the startup regions under the Startup America Partnership. It is a statewide initiative to spur new company creation in Colorado and deepen the communal backdrop out of which new companies emerge. *See* Startup Colorado, www.startupcolorado.com.

[164] New Tech Meetup, www.bdnewtech.com (last visited Apr. 1, 2012).

[165] Spring Startups Calendar, http://www.springsstartup.com/events/ (last visited Apr. 1, 2012).

[166] Denver Founder's Network, http://www.meetup.com/Denver-Founders-Network/ (last visited Apr. 1, 2012).

standardization and improvement in angel education/information sharing, though not a silver bullet, are perhaps first steps towards resolving these challenges.

Richard Florida has argued that regional competitiveness is determined by human capital, a proposition that is apt in considering angel investing in Colorado.[167] Mere invocation of human capital, of course, will not solve Colorado's angel investing challenges, but if and when such challenges are resolved or at least mitigated, the talent of Colorado's entrepreneurs, investors, professionals, and educators will play a fundamental role.

[167] Richard Florida, Cities and the Creative Class 6-7, 13 (2003) (citing the work of Robert Cushing and Robert Lucas/Edward Glaeser for the proposition that regional competitiveness is determined by human capital).

Appendix A:
Angel Investment Structures

Broadly speaking, there are two basic types of angel investment structures: (a) equity and (b) convertible debt.

At the Roundtable, Mike Platt gave a presentation on equity deals.[168] A basic characteristic of these deals is that in exchange for capital, the angel investor gets an ownership stake (equity) in the startup.[169] With an equity investment, the investor takes an ownership percentage (a number of shares) in the company; although some have noted that angels sometimes take common shares,[170] many angels who take equity get preferred shares.[171] Equity for founders, management, and employees is generally common equity, which confers simple ownership of a portion of the company with no special rights;[172] equity for investors (including angels) tends to be preferred equity.[173] Preferred equity confers ownership of a portion of the company with additional rights that common stock holders do not have.[174] Liquidation preferences, for instance, are often used with preferred equity: on liquidation of the company, preferred gets paid before common.[175] Another frequently used feature in preferred equity is anti-dilution protection, which protects investors in the event that the company later issues equity at a lower valuation than in previous financing rounds, meaning that subsequent investment rounds do not dilute or only lightly dilute the ownership stake of preexisting preferred equity holders.[176] There are two varieties of anti-dilution: weighted average anti-dilution, which "takes into account the relative effect of the amount of shares sold in the current round," and ratchet based anti-dilution, which "re-prices an investor's shares in previous rounds, usually through a conversion price adjustment, to the price paid in the current round."[177] Preferred equity also typically features

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168 Platt, *supra* note 66.

169 *See*, *e.g.*, *Equity*, Investopedia, http://www.investopedia.com/terms/e/equity.asp (Equity is "a stock or other security representing an ownership interest.").

170 Koss, *supra* note 62, at 3.

171 *See*, *e.g.*, Cable, *supra* note 63, at 127. "It is often stated that angel investors are more likely to invest in common than preferred stock. Recent studies, however, suggest that this perception is no longer accurate (if it ever was)."

172 Platt, *supra* note 66.

173 *See*, *e.g.*, Bill Payne & Associates, *What are Preferred Shares?*, http://billpayne.com/2010/03/30/what-are-preferred-shares.html (March 30, 2010) ("Most corporations can issue multiple classes of stock, usually preferred or common shares. With two classes of stock, certain rights can be reserved for each class, regardless of the relative size of each class. Preferred shares of private companies usually have the right (or obligation) to convert to common shares at a prearranged conversion rate (usually 1 to 1), upon the occurrence of specific timing, such as the sale of the company. Preferred stock also regularly has a stipulated dividend rate.").

174 Platt, *supra* note 66. *But see* Koss, *supra* note 62, at 3 (sometimes angels take common stock).

175 Platt, *supra* note 66.

176 *See* Brad Feld, *Term Sheet: Anti-Dilution*, FeldThoughts, http://www.feld.com/wp/archives/2005/03/term-sheet-anti-dilution.html (March 21, 2005).

177 Platt, *supra* note 66. *See also* Feld & Mendelson, *supra* note 93, at Glossary, 210 and 212.

dividends (distributed earnings to preferred equity holders), and covenants protecting the investor (including restrictions on company transactions with related parties outside the ordinary course of business).[178] The preferred equity in angel deals is typically "light" preferred, meaning that the preferences are not as robust (protective of the investor) as they typically are in a venture capital round.[179] According to a survey done by the law firm of Fenwick & West, preferred equity financings account for 69% of angel financings.[180]

Convertible debt (covered at the Roundtable by Mark Weakley) is, as the name suggests, not equity, but debt; it is a loan that the company takes and must pay back at a later date.[181] That loan can convert into equity (the debt becomes an ownership stake in the company) upon the occurrence of certain events, typically when a "qualified financing" occurs.[182] Usually the debt will (a) convert at a discount to the price of qualified financing or (b) the debt holder (the angel investor) will receive additional warrants to purchase company equity.[183] Some mathematical examples (courtesy of Fred Wilson[184]) help clarify how convertible debt works. Three useful examples include: convertible debt with warrants coverage, with a price discount, and with a valuation cap. As an example of warrant coverage, assume there is "20% warrant coverage," which means you take the size of the convertible note, say, $1 million, multiply it by 20%, which gets you to $200,000, and the warrant will be for $200,000 of additional securities in the next round. Assume the next round is for $4 million; then the total size of the next round will be $5.2 million ($4 million of new money plus $1 million of the convertible note plus a warrant for another $200,000). The total cost of the convertible loan is $1.2 million of dilution at the next round price for $1mm of cash.[185] As an example of a price discount, assume a typical 20% discount (discounts are usually 20% or 25%). The discount is the amount of reduction in price the convertible loan holders will get when they convert in the next round. Assuming the company raised $4 million of new cash, the convertible loan holders will get $1.25 million of equity in the round for converting their $1 million loan ($1 million divided by .8 equals $1.25 million).[186] Valuation caps put

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[178] Platt, *supra* note 66; Koss, *supra* note 62, at 3.

[179] *See* Platt, *supra* note 66. *See also* Feld, *supra* note 64. *See also* Chris McDemus, *Let's Talk Angel Investors*, http://www.vcdeallawyer.com/2009/08/30/lets-talk-angel-investors/ (Aug. 30, 2009) "If the rights, privileges and/or preferences attached to the...series preferred stock are too rich it may give the venture capitalists in your next financing round serious indigestion." For further discussion of the "light preferred" concept, see Section I.C.

[180] Fenwick & West, *Angel/Seed Financing Survey* (2011), *available at* http://www.fenwick.com/publications/6.12.3.asp?vid=1.

[181] Weakley, *supra* note 10.

[182] *Id*. *See also* Wilson, *supra* note 121.

[183] *See* Feld, *supra* note 64; *see also* Wilson, *supra* note 121 ("The typical forms of compensation for making a convertible loan are warrants or a discount.").

[184] Wilson, *supra* note 121.

[185] *Id*.

[186] Wilson, *supra* note 121.

a "ceiling on the conversion price of the debt."[187] As Jason Mendelson has observed, "the valuation cap is typically only seen in seed rounds where the investors are concerned that the next round of financing will be at a price that is at a valuation that wouldn't reward them appropriately for taking a risk by investing early in the seed round."[188] Mendelson provides a useful example of the mechanics of a convertible debt valuation cap.[189] Assume that the angel investor and company do a convertible debt deal for $100,000 with a 20% price discount and a $4 million valuation cap, and that the company seeks to raise a round of financing in the form of preferred stock. The company later receives a term sheet at $20 million pre-money valuation. In this case, the discount of 20% would result in the investor having an effective valuation of $16 million for his investment. The valuation cap addresses this situation.

> Since the deal has a 20% discount, any valuation up to $5 million will result in the investor getting a discount of 20%. Once the "discounted value" goes above the cap, then the cap will apply. So, in the case of the $20 million pre-money valuation, the investor will get shares at an effective price of $4 million.[190]

Convertible debt is frequently seen (a) in friends and family investments, (b) when company founders and angel investors either cannot agree on company valuation or wish to avoid the issue of company valuation altogether or (c) when there is no lead investor who negotiates on behalf of the angel group.[191] According to Fenwick & West, convertible debt accounts for 31% of angel financings.[192] Jason Mendelson has observed that convertible debt has several advantages when compared to a preferred equity investment: convertible debt deals are cheaper to consummate and therefore quicker to close, the parties need not lock in a company valuation at the time of investment, and the angel investor can more easily be bought out (should the need arise) simply by selling his or her notes to another investor.[193] Mendelson also notes an aspect of convertible debt that is less favorable, at least from the perspective of the company founder: debt holders have rights that equity holders do not. Debt holders can call their loan and request their money back, which means that they can potentially shut down the company if it does not have cash to repay the debt (subject, of course, to the deal negotiated).[194] (Some have remarked that because debt is senior to equity in liquidation,

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[187] Jason Mendelson, *Convertible Debt: Valuation Caps*, http://www.askthevc.com/wp/archives/2011/09/convertible-debt-%E2%80%93-valuation-caps.html (Sept. 20, 2011).

[188] *Id.*

[189] *Id.*

[190] *Id.*

[191] *See* Wilson, *supra* note 121; Roundtable participants also echoed each of these sentiments.

[192] Fenwick & West, *supra* note 180.

[193] Mendelson, *supra* note 127; these advantages are considered from the company founder's perspective, though they arguably are advantages from the perspective of the angel investor as well.

[194] Mendelson, *supra* note 127.

"there is security in taking a debt position in a company versus an equity position," but in many cases if a startup is liquidated, there is nothing of value to pay creditors of the company anyway.[195]) If a company "believes its equity will be worth more at a later date, then it will dilute less by issuing debt and converting it later. It is also true that the transaction costs, mostly legal fees, are usually less when issuing debt" as opposed equity.[196]

Multiple Roundtable participants agreed that, irrespective of the ultimate challenges presented by it, convertible debt enables parties to punt on the question of company valuation and quickly provide the company with capital; because the amount of money is invested in the form of debt, the company's valuation need not be discussed because the amount invested does not immediately represent a defined ownership stake in the company.[197] Ibrahim has similarly described this issue, observing that convertible debt "creates a more complicated angel round, but by deferring valuation until the next round, it allows venture capitalists to eliminate their biggest problem with angels—overvaluation."[198]

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[195] Wilson, *supra* note 121.

[196] *Id*.

[197] *See*, *e.g*., Weakley, *supra* note 10. Of course, negotiating the valuation caps in a convertible debt deal still implicates company valuation in a sense, because the cap needs to be within a certain band of valuation in order for both the entrepreneurs and angels to agree to it.

[198] Ibrahim, *supra* note 5, at 1430.