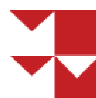
Confluence Capital, LLC

Oregon Capital Scan: A Developing Ecosystem

By Niels Zellers

Here for Oregon. Here for Good.



Meyer Memorial Trust

Oregon State Treasury
Ted Wheeler, State Treasurer

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My hope is that this study proves useful to a wide array of readers, but most importantly, that readers are motivated to improve Oregon's capital ecosystem, either through direct investment or by working with businesses to engage in productive dialogs about issues related to capital and economic development.

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ABOUT THE SPONSORS

The Oregon Community Foundation

The mission of The Oregon Community Foundation is to improve life in Oregon and promote effective philanthropy. OCF works with individuals, families, businesses and organizations to create charitable funds to support the community causes they care about. Through these funds, OCF awards more than $60 million annually in grants and scholarships. Thousands of citizens have created a permanent endowment for Oregon through OCF – an endowment that will help Oregonians today and for generations to come.

Oregon's Office of the Treasurer

The Office of the State Treasurer is a highly sophisticated organization with a wide range of financial responsibilities, including managing the investment of state funds, issuing all state bonds, serving as the central bank for state agencies, and administering the Oregon 529 College Savings Network. The Treasury is managed like a business, striving to save taxpayers money and earn the highest possible return on investments.

The Meyer Memorial Trust

The mission of the Meyer Memorial Trust is to work with and invest in organizations, communities, ideas and efforts that contribute to a flourishing and equitable Oregon. The foundation is greatly influenced by the values of its founder, Fred G. Meyer: to innovate, take risks, embrace diversity, adapt to changing circumstances, contribute to economic development/parity and to develop the power of the mind. MMT uses a mix of strategic, proactive and responsive investments to fulfill its mission, including grant making, loans, initiatives, commissioning research, supporting policy advocacy and a range of community and nonprofit engagement strategies.

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About the Author

Niels Zellers has ten years of experience in finance, strategy and sustainable investing. He recently founded Confluence Capital, LLC, an impact investing consulting firm that works with investors, funds and new ventures.

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I. Introduction

In 2010, The Oregon Community Foundation began exploring how philanthropy could play a role in improving Oregon's economy. Experts shared many ideas ranging from continuing to support education to stronger investments in revolving loan funds. A common theme always percolated into the discussion: Access to Capital. In conversations with colleagues at Meyer Memorial Trust, Business Oregon, CTC Consulting and Oregon's Office of the Treasurer, all agreed it would be useful to conduct a scan of capital providers in Oregon to better understand what exists and identify the gaps. Access to capital enables businesses, both mature and nascent, to innovate and grow. Together, The Oregon Community Foundation and Oregon's Office of the Treasurer commissioned a study to systematically account for the sources of capital throughout the state.

From October 2011 to January 2012, interviews with 93 participants were conducted to understand the capital ecosystem in Oregon. Quantitative data was also analyzed when available. In short, the study was successful in identifying a number of gaps in Oregon's capital ecosystem, as well as dynamics that play an important role in designing solutions. This study recommends prioritizing three specific gaps and provides recommendations on how to address capital issues going forward. This study may also provide the baseline data from which Oregonians can begin to monitor the health of the Oregon capital ecosystem, which will inform stewardship activities going forward. This study and the recommendations that follow are not exhaustive or exclusive, but represent a good start toward nurturing a healthy capital ecosystem, where businesses and people can thrive. Suggestions for further investigation can be found at the end of the report.

II. Context

Most professional money managers will tell you that good businesses receive investment and that is generally true. The notion is that the capital ecosystem or capital markets are efficient. They are efficient, but they are not perfect. The capital ecosystem is complex, fluid and dependent on a variety of intermediaries to function properly. Gaps in the supply of capital represent inefficiencies in the capital ecosystem and represent clear opportunities for both profitable investment and increased economic development.

Capital Gaps

Capital gaps represent a disconnect between the supply of capital and the qualified demand for capital. As a result of a gap, promising companies may lack the capital needed to grow. Capital gaps lead to inefficiencies. It is clear that not all gaps are the same. Some gaps *should* exist simply because there is no opportunity for investment, while other gaps *shouldn't* exist, but do. The gaps that *should* exist do because the companies looking for investment are not ready or appropriate for investment, either due to a lack of qualified entrepreneurs or weakness in the business plan. Many gaps that *shouldn't* exist are caused by structural issues, such as the small size of a sector or geographic market, the efficient size of traditional intermediaries, siloed sources of capital and because proven investment models are more attractive to investors than creative investment solutions. In the absence of action, many of these gaps are likely to persist. While structural issues may impede some investment in Oregon through narrowly focused funds, capital that has a broader mandate and/or that is located in larger markets can play a critical role in funding Oregon businesses. This has been demonstrated with recent high profile deals.

Economic Development

Capital is one of the vital ingredients required to generate economic development. Without capital, businesses cannot form or grow which limits job creation and ultimately inhibits the ability of individuals to provide for their own needs. In order to maximize the opportunity for economic development, the entire

capital ecosystem needs to function properly. A well-functioning capital ecosystem not only maintains the most basic capital tools, such as credit, but also pursues innovation where deficiencies exist.

Innovation

Over time, innovation has continued to make the capital ecosystem ever more efficient. The venture capital model is an example of an innovation that has improved the functioning of the capital ecosystem. Venture capital (VC) provides financing for a specific type of business, including those with high growth potential and high risk, but with a defensible[1] advantage over competitors. This financial innovation, created with profit in mind, has had a significant economic impact. There are hundreds of companies that exist today that relied upon venture financing in order to grow. Oregon has developed a culture of innovation that is reflected by the formation of the Oregon Resource and Technology Development Corporation (ORTDC) in 1986, the Oregon Growth Account (OGA) in 1995 and, most recently, the Oregon Angel Fund (OAF) in 2007 and the Portland Seed Fund (PSF) in 2011.

Defining a Gap

This study defines a gap as "a lack of capital available to finance a business that has a reasonable probability of success, assuming an efficient capital market." The use of the term "efficient capital market" means capital will seek out returns, financing promising businesses, so long as capital markets are operating properly. This study includes a variety of sources of capital, including those that seek a financial return to those used primarily for economic development. These two forms of capital have often worked together to finance projects or businesses that would not have been done otherwise. Examples include tax credits for renewable energy and Small Business Innovation Research (SBIR) grants which can develop new technology-based businesses.

III. Methodology

A Steering Committee provided guidance and connections to sources of data and individuals to interview in order to launch the study. Both quantitative and qualitative information was collected from 93 participants, largely through in-person interviews. Participants included both capital providers and experts in Oregon's capital ecosystem. While many more interviews could have been included, the sponsors limited the timeframe for the study, recognizing that it could serve as a baseline for future, more in depth analyses. Examples of quantitative data provided include: total fund assets; assets currently available to invest; estimated investment in 2012; and average transaction size. These categories are used to describe the capital gaps identified in the study.

The study primarily examined *sources* or supply of capital rather than the *demand* for capital. The reason for this approach is two-fold: first, the demand for capital is dispersed among numerous businesses, but the supply of capital has fewer providers; second, the quality of demand is a key aspect of sizing demand for capital, but evaluating the quality of demand is inherently subjective, e.g. the experience of management or the promise of a new technology.

To illustrate the gaps identified, several stories were collected about actual Oregon businesses. Some details have been changed to protect the identity of those companies who do not wish to be named. These stories do not constitute a judgment on their qualification for financing. The gaps identified and other conclusions of this

[1] Venture capital firms seek businesses whose advantage is often technical in nature, so as to protect innovation through patents.

report are based on the interpretation of both quantitative and qualitative insights of participants. As previously noted, demand is a vital component that this study does not systematically address. The conclusions are solely those of the author.

IV. A Brief Primer on Types and Providers of Financial Capital

The capital ecosystem is made up of a variety of providers that utilize different investment strategies and types of capital. A brief description follows about the types of capital mentioned in this study. This section doesn't encompass all relevant forms of capital or providers, nor is any description comprehensive. It is meant to provide enough context to make this document useful for readers outside the investment space. The lines between these forms of capital are not, in practice, as rigid as described here. Additionally, the practice of finance, its tools and techniques, will vary slightly over time and by provider.

Private equity (PE) funds are often organized as limited partnerships (LP). This legal structure creates a fiduciary duty for general partners (the investment managers) to act in the best interest of the limited partners (the investors). Private equity is a broad category of private investment funds, which include: venture capital; growth capital; and leveraged buyout funds. These funds are differentiated by their specialized investment strategy.

Seed stage capital can take the form of equity, but most often is used as convertible notes to finance start-ups as they move from concept to prototype or product, prior to being ready to sell their products in the market.

Early stage venture capital (VC) is usually the first formal round of financing a start-up receives, known as a series A. This investment is made based on certain stage criteria, such as the target company having a product ready to go to market. In practice, these criteria are not rigid, nor consistent across all early stage venture capital funds. Some businesses may have already gone to market, selling to early customers by the time a series A round closes. The venture capital model relies on a strict set of criteria for success: a defensible advantage; a large market in which to scale rapidly; low capital costs; and a strong management team, which includes experience with successful start-ups, domain expertise and a competitive drive to win.

Later stage venture capital (VC) is follow-on financing for businesses that have already received some venture capital investment. This capital is used to scale businesses before a liquidity event such as a private sale or initial public offering (IPO).

Venture debt is provided to start-ups during series A or B rounds by specialized banks or venture debt funds. Venture debt carries higher risk than traditional lending and has commensurately higher interest rates than traditional lending. A number of start-ups and investors may depend on this type of capital. Taking on debt is one way that entrepreneurs can avoid continued sales of their company in order to finance growth. Investors favor venture debt because it allows them to deploy less equity in order to achieve the next milestone.

Growth capital, also referred to as expansion capital, is used to finance growth for businesses that are not generating sufficient cash to finance their own growth. The specific type of capital may vary, for example straight equity, mezzanine debt, revenue loans, etc.

Angel investors are often associated with seed or early stage investing, but in fact, angels may invest any type of capital at any stage. There is a wide range of angel investors. They can vary in the stage and sectors of business in which they invest and also in the frequency and scale of the investments they make. Another

difference among angels is their degree of involvement. Some angels serve on company boards where they can add significant expertise. Others don't have the time or specific sector experience to contribute.

Buyout capital traditionally uses a small amount of equity, leveraged with a relatively large amount of debt to acquire control of a company. Because little equity is employed, the repayment of debt is relatively risky and consequently the debt carries a high interest rate. Buyout investment groups target mature businesses that have strong balance sheets and stable cash flows to service the debt required by this investment strategy.

Mezzanine capital is invested as preferred equity or debt with high interest rates accompanied by warrants. This capital is often used to finance growth businesses, but can be used in a variety of situations including business turnarounds. Mezzanine lending is unsecured, meaning that it has no claims on assets, contributing to the higher interest rates for this type of debt.

Asset-based lending is higher risk than traditional bank lending and has commensurately higher rates of return. This lending can include non-traditional forms of collateral, such as accounts receivable (payments owed to a business by its customers). This type of lending has historically proliferated when capital is tight and businesses have weaker balance sheets.

Strategic investors are companies which invest in businesses that have strategic value to the investor. Strategic investors may deploy their capital at various stages and for various reasons, such as growth through acquisition or access to new technologies ahead of competitors.

Traditional bank loans are made to individuals and businesses, based on a set of standards that rely on assets for collateral, such as a building, and a future cash flow to service the debt. Because bank lending is secured, bank rates are considerably lower than mezzanine debt.

Convertible notes are a form of debt that pay interest, but can be converted into equity. These notes are often used in seed or early stage venture investing.

Revenue loans have a current pay obligation similar to the interest rate on a conventional loan, but the current pay obligation on a revenue loan is a percentage of revenue up to a total return, usually 2-3x the original investment. This structure allows a revenue loan to share in the upside of growth through rapid repayment, but doesn't provide quite the burden that conventional debt does when a firm's revenues decline and money is tight.

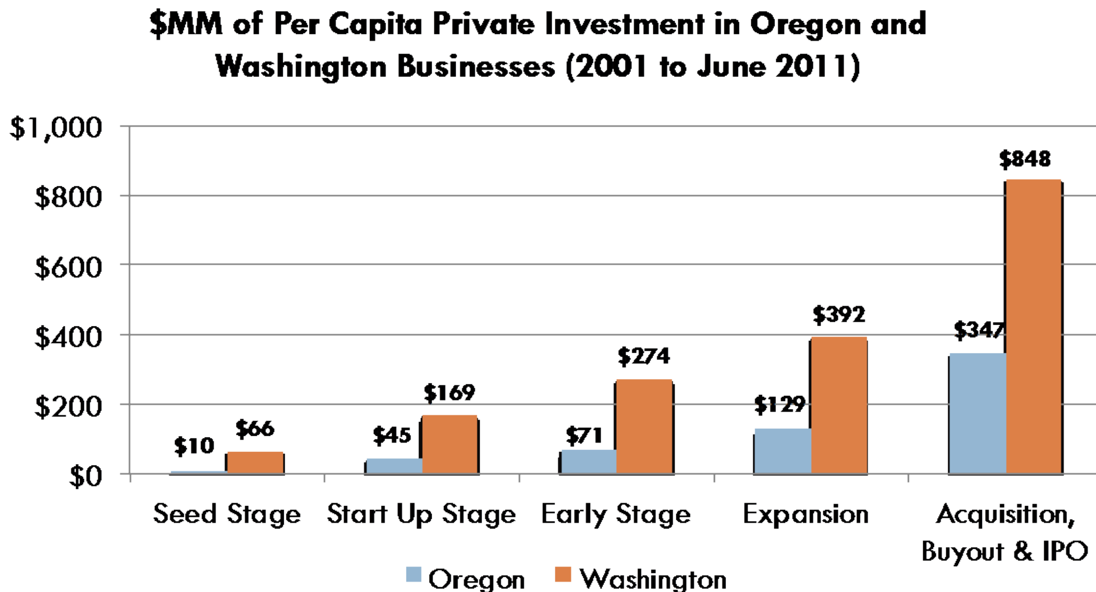
Preferred equity has characteristics of both debt and equity instruments. In the event of a liquidation, preferred equity is senior to common stock, but junior to debt. Preferred equity may have a dividend associated with it, which is senior to common stock. Preferred equity has the ability to convert to common stock, tends to be non-voting and is callable by the company.

Microlending is the extension of small loans to borrowers who do not qualify for traditional bank loans. In the U.S., these loans range from $100 to $50,000. Borrowers typically lack collateral, credit history or steady employment. Lenders often require business counseling as a condition of the lending process. This lending counseling/assistance is a critical risk management tool. These loans can play an important role for micro entrepreneurs who have few other options for financing.

V. The Capital Gaps

Oregon's capital ecosystem is less developed than neighboring Washington despite adjusting for population size. Figure 1 illustrates per capita private investment in Oregon compared to Washington. The difference in per capita investment is most assuredly due in large part to fewer per capita investment opportunities in Oregon relative to Washington. Capital gaps do exist in Oregon, but it is unclear if these types of gaps also exist in other states. Because of this, it is also unclear if Oregon's capital gaps play a role in the difference in per capita investment.

Figure 1.



Source: Cambridge Associates; and U.S. Census 2000 & 2010
Note: Investment data excludes debt, bridge financing, and restart/turnaround capital. Source data is copyrighted by Cambridge Associates, LLC and is used here by permission.

The Landscape for Private Capital

Capital gaps make Oregon's capital ecosystem less efficient. Figure 2 illustrates the landscape of private capital providers in Oregon. This figure shows funds that have an Oregon presence (office or venture partner) and/or a mandate to make investments in Oregon through the Oregon Growth Account. There are numerous other private capital firms that have invested in Oregon, but due to time limitations, only some of these firms could be included in this study.

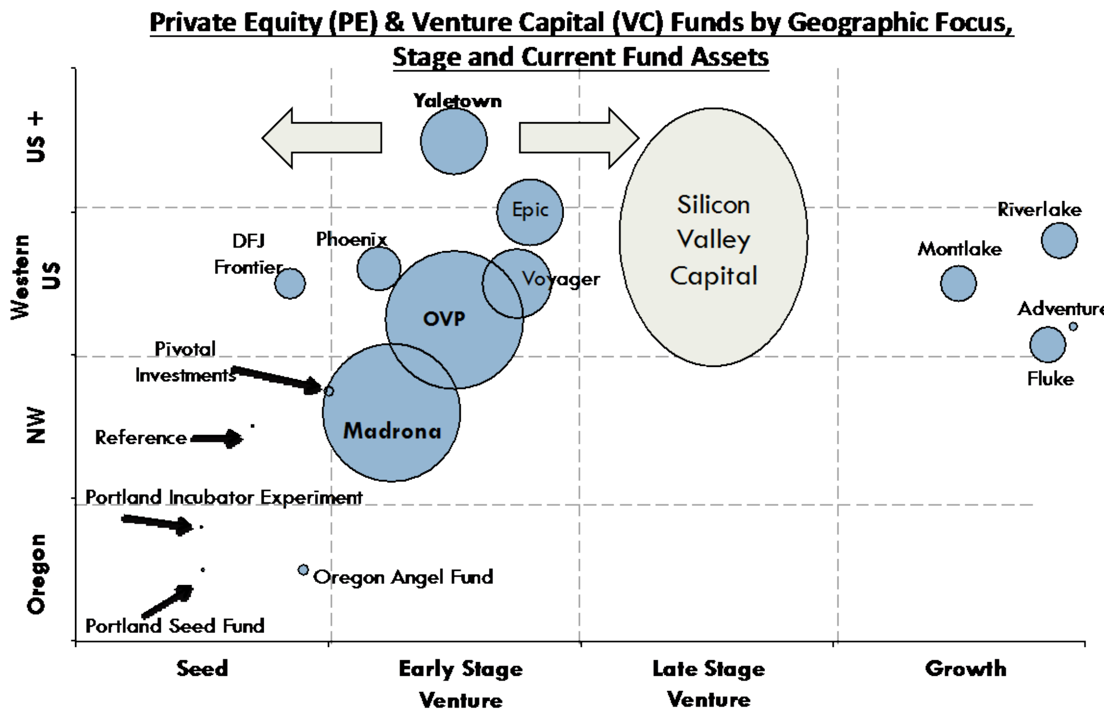
Figure 2 places funds along the x-axis based on the core stage at which they invest, meaning that funds in early stage venture may also make seed and later stage investments. In fact, it is common for early stage VCs to also invest in seed stage companies when those companies are located close to a VC's office.

While a number of the capital providers surveyed are clustered together in early stage capital, Oregon has no established traditional early stage VC headquartered in the State. Pivotal Investments is on their first fund so it might be premature to describe them as "established" and Reference Capital, is primarily a seed stage fund.

Since the ability to make follow on investments is vital to realize returns, all VCs reserve capital for follow-on investment in subsequent rounds, e.g. series B. Later stage (series B, C & D) venture investment rounds often attract considerable capital from outside of Oregon, most commonly from San Francisco Bay Area firms. While

these firms were generally not surveyed due to the scope of the study, most VCs reported that once promising start-ups reached a certain visibility, outside capital was likely to invest in either early or later stage rounds. Recently, outside capital providers have made several large investments. Figure 3 shows a number of deals reported. Many higher profile investments from outside capital providers have come in early rounds which is promising for Oregon. At this time, it is unclear if this represents a trend.

Figure 2.



Note: Endeavour Capital is a buyout stage fund, headquartered in Portland and would appear off the graph to the right. It is not included here because its considerable size ($675MM) would make it difficult to analyze other firms.

Figure 3. A Sample of Prominent Oregon Venture Deals in 2011

Company	Investors	Round Size	Series	Broad Sector
Agilyx	Kleiner, Perkins, Caufield & Byers; Waste Management Inc.; Chrysalix Energy Venture Capital; Saffron Hill Ventures; **Reference Capital**	$22MM	B	Clean Technology
ShopIgniter	Trinity Ventures and Madrona Venture Group	$8MM	B	Software
Janrain	Emergence Capital Partners; Square 1 Bank	$15.5MM	B	Software
AppFog	Ignition Partners; Madrona Venture Group; First Round Capital; Founders Co-Op	$8MM	B	Software
Cedexis	Madrona Venture Group; Advanced Technology Ventures	$6MM	A	Software
ClearEdge Power	Artis Capital Management; Güssing Renewable Energy; Southern California Gas Company; Kohlberg Ventures	$73.5MM	E	Clean Technology
Brammo	Polaris Industries; Alpine Energy; NorthPort Investments	$28MM	B	Clean Technology
Urban Airship	Verizon; SalesForce.com; Foundry Group; True Ventures	$15.1MM	C	Software
Puppet Labs	Google; Cisco; VMware; Perkins, Caufield & Byers; True Ventures; Radar Partners	$8.5MM	C	Software

Note: Oregon investors are shown in bold.

Gap #1: Seed Stage Capital Gap

Seed stage capital is sparse across sectors, with the exception of software, for companies needing between $100K and $500K.

Seed stage companies are seeking to take their concepts and technologies and develop them into prototypes or products. These businesses do not generally qualify for formal venture financing (series A). The gap is bound by the Oregon Angel Fund with larger investments in more mature start-ups and Oregon's angel investors and existing seed funds at the lower end with smaller earlier stage investments.

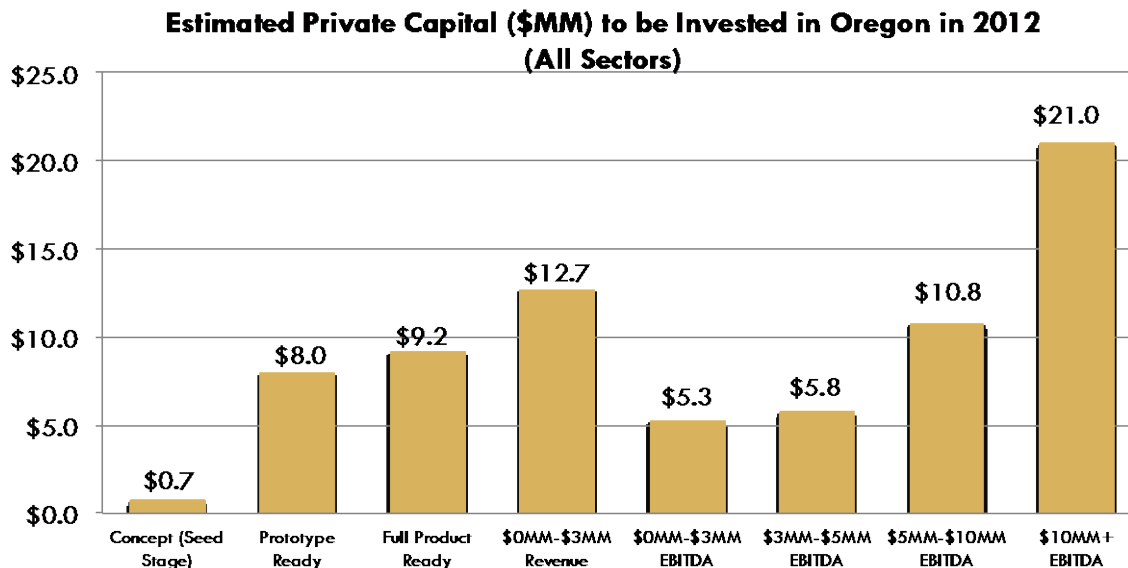
The Portland Seed Fund (PSF) and Portland Incubator Experiment (PIE) invest approximately $20K in seed stage companies and offer a several month opportunity to develop their ideas with the support of various resources. These small investment amounts are effective due to the preference for software-based start-ups and dramatic reductions in the cost of starting a software company, something not possible a decade ago. The Oregon Angel Fund (OAF) makes investments as small as $500K through an annual fund, financed by a group of angel investors and the Oregon Growth Account. OAF uses a group investing model that invests twice a year in businesses with a prototype or product. Oregon has a wide range of angels investing in start-ups. Some of Oregon's angels invest $25K in one deal a year, while other more active angels invest $50K+ per deal and make 2-4 deals per year. The preponderance of Oregon's early stage angels seem to invest less than $50K per company. As mentioned previously, formal VC funds may make seed investments but there are few formal VC funds in Oregon. Pivotal Investments and Reference Capital are the only such funds encountered by this study.

It is often challenging for start-ups that need capital in order to develop their prototype or product, but they require more than $50K to do so. PSF and PIE do not meet the capital needs of all seed stage businesses. OAF invests at a later stage that requires a prototype or product. The companies in the seed stage gap tend not to be software driven, due to the low start up costs in software. Since there is no clear capital provider for this space, start-ups need to find financing from a few super angels who are able to cover the whole round or numerous angel investors with smaller investments. Since Oregon has so few super angels, there is a gap for companies that can't develop a prototype for under $50K.

Figure 3 illustrates the private capital estimated to be deployed in 2012 across sectors and stages. This view is a snapshot in time and clearly demonstrates two gaps. Figure 3 shows relatively low volumes of capital slated for the seed stage, as well as for companies with between $0M-$5M in EBITDA[2]. Anecdotes from numerous capital providers and experts indicate that the upper bound on this later gap is closer to $3M in EBITDA, rather than $5M, and that this gap is particularly relevant for more established firms, rather than those that recently received VC capital.

[2] EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) is used to approximate the volume of cash generated by a business in a given period.

Figure 3.



GAP #2: GROWTH CAPITAL FOR BOOTSTRAPPED BUSINESSES

Growth capital is under supplied for bootstrapped companies with EBITDA of $0.5MM – $3MM.

There are generally two routes that companies take where growth capital becomes needed. The first route is a venture-backed company that has raised series A and B rounds, and is then trying to raise additional capital for growth, perhaps through series C and D rounds. The second path is a company that never received venture capital. Instead, this company has been bootstrapped by the founders, raising money from family, friends and angels, or relying on earnings to finance its growth.

Capital providers indicate there are a number of these privately held, bootstrapped companies in Oregon. They are generating cash from proven products. While several of these bootstrapped companies have grown quite large, there are many more that have grown more slowly and are generating between $0.5M-$3M in EBITDA. While owners of some of these businesses may have no interest in growth or a sale, many others are looking to grow and/or need some degree of liquidity but don't have the capital and/or expertise to achieve these goals.

This gap exists for several possible reasons including a) small companies have trouble attracting private equity, b) there is a low awareness of financing options or c) there is a mismatch between the company's needs and the types of financing available.

There are two basic reasons that these businesses tend to be less attractive targets for most private equity (PE) funds. The first reason is their relatively small size. A PE fund that tries to target these small investments would have to do many more deals in order to deploy its capital. Doing a larger number of deals does generate greater expenses and can erode investment returns. Another reason is the lack of formalization of business systems and processes with these smaller firms. Again, returns may diminish if PE funds have to work harder on building systems and processes, such as human resources, finance, etc.

The fit between a business or owner and the types of capital is a complex issue. Fortunately growth capital can take nearly every conceivable form, including straight equity, preferred equity, mezzanine debt, revenue loans, etc. Giving up control can be an issue for owners, making equity investments challenging. There are also

issues with regard to debt. First, the current pay obligation of debt (interest) may be hard on growing businesses. Secondly, some capital providers note a misunderstanding, on the point of the borrower, as to what rates are appropriate for a growth business. Mezzanine capital can often require interest rates in the mid-teens, due to the unsecured nature of the lending and the riskiness of growth efforts. These rates make sense from the risk-adjusted return perspective of the investor, but can seem irrational for business owners who have less finance experience, particularly when the rates on home loans are extremely high.

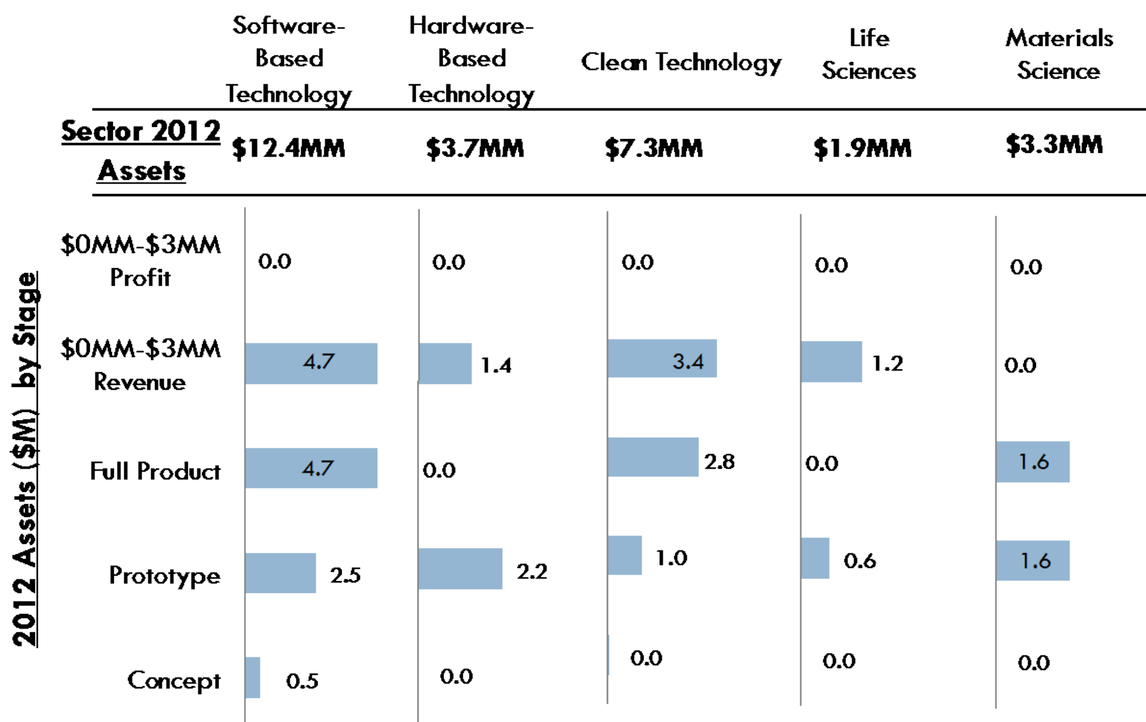
A Growth Opportunity: Outdoor Gear

Gregg owns a 25 year-old business in rural Oregon that manufactures outdoor gear. He grew the business from the ground up. While the business could expand through several attractive growth opportunities, Gregg wants to retire soon. He is struggling to find the right buyer and reluctant to give up the generous income this business generates each year. Growth capital could finance a strong sales team with an opportunity to grow sales three-fold. This growth could create both sales and manufacturing jobs in rural Oregon.

Figure 5 takes the data in Figure 4 and breaks it down by sector. This view can assist in identifying specific gaps. Figure 5 is consistent with the Figures 2 and 4 – there is little capital for non-software-based seed stage companies and smaller bootstrapped companies in need of growth capital. Figure 5 alludes to two additional gaps in Oregon's capital ecosystem – one in life sciences and one in clean technology.

There may also be insufficient capital in technology hardware, but this remains unclear. Each sector will vary in the capital required by stage. There is also variance in capital intensity within each sector. These present a challenge in evaluating supply.

Figure 5.



GAP #3: CLEAN TECHNOLOGY

Clean technology businesses lack sufficient capital across stages and the capital that is available is uncertain to exist in the future.

Several funds include clean technology within the scope of their investment strategy. These funds include: Madrona Venture Group; OVP Venture Partners; Yaletown Venture Partners; Pivotal Investments and Reference Capital. Pivotal Investments and Reference Capital, both of which are local, focus exclusively on this investment strategy. Unfortunately for the Oregon clean technology sector, these two firms are both relatively small. They have $5.9MM in combined capital currently available to invest across all stages, none of which is slated for seed investment.

There are very few angels investing in clean technology, relative to software-based technology start-ups. The lack of angels is driven both by the lack of legacy firms (clean technology start-ups that have seen exits) and the complexity of the markets for clean technology, for example consumer adoption, regulatory environment, etc. Both create barriers to angels who are unfamiliar with these markets. There is some seed stage angel capital that comes in from the Seattle area or has been found in California, but this is limited because most seed stage investors want to keep a close watch on businesses and tend to invest locally. Despite the lack of capital in the space overall, the sector has recently attracted significant capital from out of state venture funds. Historically, this has not been the norm.

RURAL CLEAN TECHNOLOGY: HM3 ENERGY

HM3 Energy (HM3) has developed an innovative biomass technology that plans to create hundreds of natural resource-based jobs in rural Oregon communities, while producing carbon neutral biomass for Portland General Electric's (PGE) power plant in Boardman, Oregon. PGE is ready for a test burn of HM3's product, but without the capital to build a pilot plant in rural Oregon, HM3 can't produce enough biomass for a test burn. While no in-state capital provider has come forward with the necessary capital, HM3 has seen interest from two well-known Bay Area VC firms, as well as a foreign government-controlled power company. HM3 would like to stay in Oregon, but the company may be forced to move.

Oregon has a unique advantage in the clean technology sector with several established companies, a strong consumer market and a favorable regulatory market. Relative to its advantages, there is little capital for clean technology businesses.

GAP #4: LIFE SCIENCES

Life Sciences has a paucity of capital across stages.

Oregon's life sciences sector has several similarities to that of clean technology – strong competitive advantages, few angels and few experienced CEOs – except that its challenges are even greater. The life sciences sector has an even less developed capital ecosystem and its start-ups often require even more capital and time to reach scale.

In recent years, Oregon Health and Science University (OHSU) has grown the volume of its research grants into the hundreds of millions of dollars. For VCs and entrepreneurs, these grant dollars represent non-dilutive financing. This type of capital is critical to capital intensive sectors, such as the life sciences. Recently, life science VC firms have either moved to very early stage investing or what is more often the case, shifted focus

to much later stage investing. One of these later stage firms noted that while capital intensity varies across the subsectors of life sciences, each start-up must attract approximately $20MM of non-dilutive and dilutive capital before this VC invests. These factors, combined with OHSU's focus on research with attractive commercialization opportunities, indicate that success in attracting grant dollars may prove to be a vital component in spinning out life sciences businesses.

There are few angel investors in the life sciences and even fewer formal funds. Of the firms surveyed, only three firms include life sciences in their investment strategy (Oregon Angel Fund, OVP Venture Partners and DFJ Frontier). OVP and DFJ rarely invest in this space and OAF is just beginning. Similar to clean technology – there are no legacy firms and consequently very few angels.

Despite the lack of a local capital ecosystem, the challenge of capital intensity, and few potential CEOs, events such as HD+ $50MM series A round, signals that Oregon may yet craft its own life sciences sector. It will, of course, need the capital to do so.

Hardware-based Technology

OAF, OVP and some of Oregon's angels invest in hardware-based technology, but in the absence of Smart Forest Ventures and Northwest Technology Ventures there seems to be little formal capital in this space. Small Business Innovation Research (SBIR) grants are one source of seed stage capital for developing these technologies, as they are for other sectors. It remains unclear if there are qualified companies that are receiving investment.

Venture Debt

Silicon Valley Bank (SVB) is the largest provider of debt financing to venture backed start-ups in the U.S. SVB has a presence in Oregon, but several capital providers noted a challenge in attracting venture debt. The reasons for this remain unclear. The lack of venture debt provides a significant challenge to start-ups that rely on debt in order to scale and preserve investors' targeted returns.

Non-Bank Loan Capital

The lenders interviewed in this study were often non-profit or public sector lenders. These lenders serve both existing and new businesses, with loans ranging from $1,000 to $1MM. Each of these entities have played important roles in Oregon's capital ecosystem over the years by investing loan capital in sectors that don't attract venture capital. Oregon's principal non-bank lenders are Business Oregon[3], Craft3[4] and the eleven regional economic development districts[5] (EDD). Business Oregon, Craft3, and the EDDs each serve every region in the state. Other lenders such as Albina Opportunity Corporation, serve specific regions.

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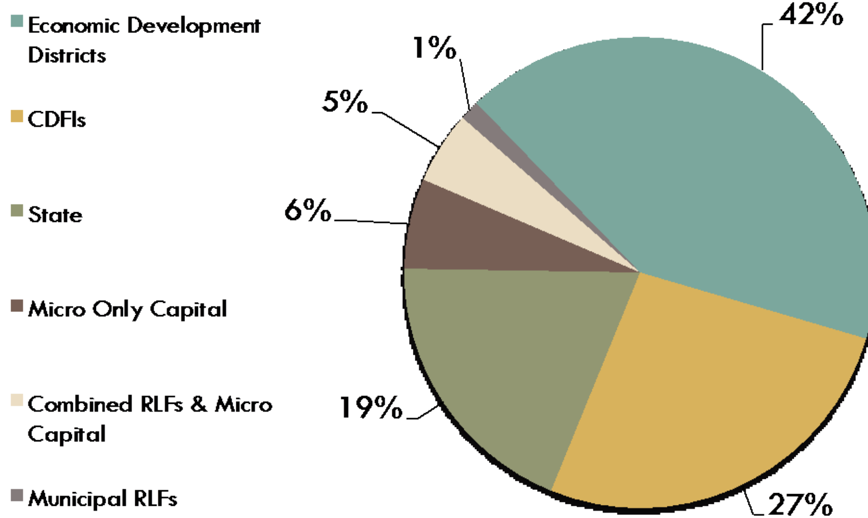
[3] Business Oregon is an Oregon state agency.

[4] Craft3, formerly known as Enterprise Cascadia, is a Community Development Financial Institution (CDFI).

[5] Regional economic development districts are collections of a few counties that have pooled economic development financing activities.

The combined value of the non-bank loan funds surveyed is approximately $143MM. Figure 5 illustrates a snapshot of the capital available to lend by Oregon's non-bank lending institutions. $37MM or 26% of the $143MM is currently available. While this seems to be a substantial volume of latent assets, it is unclear why the buildup exists.

Figure 5.



The amount of capital available to lend is influenced by a number of factors. The cyclical nature of capital raising campaigns will play a large role in temporarily increasing the cash available to lend. Reduced loan origination causes repayments to accumulate in revolving loan funds (RLF). The degree to which loan programs are marketed will also influence how many loans are made.

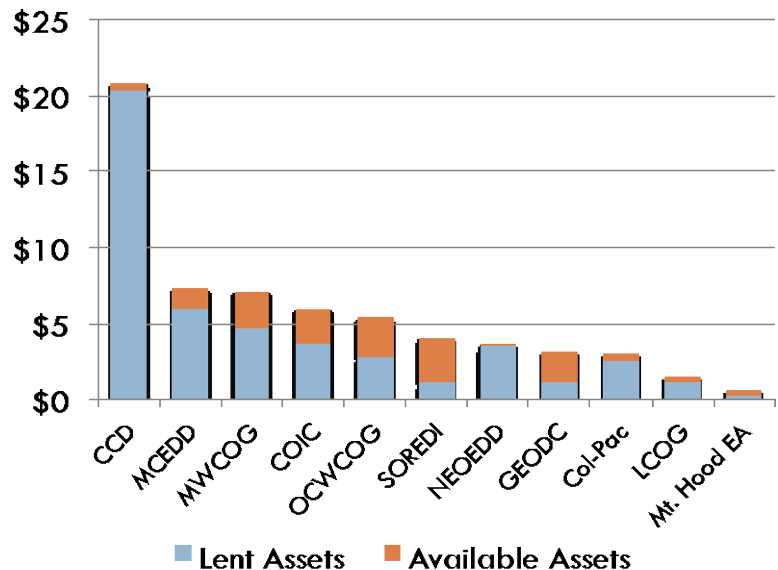
Note: Assets have been adjusted for funds whose geographic scope goes beyond Oregon.

Figure 6 illustrates cash balances as a percentage of the total loan fund value for revolving loan funds across the state. There is quite a difference among lenders in terms of the percentage of assets available for lending.

Figure 6.

KEY: (Abbreviation, Organization Name & Counties Covered)

CCD: CCD Business Development Corporation (Coos, Curry & Douglas)
MCEDD: Mid-Columbia Economic Development District (Hood River, Wasco, Sherman, Klickitat & Skamania)
MWCOG: Mid-Willamette Council of Governments (Marion, Yamhill & Polk)
COIC: Central Oregon Inter-Governmental Council (Jefferson, Deschutes & Crook)
OCWCOG: Oregon Cascade West Council of Governments (Linn, Benton & Lincoln)
SOREDI: Southern Oregon Regional Economic Development Inc. (Josephine & Jackson)
NEOEDD: Northeast Oregon Economic Development District (Wallowa, Union & Baker)



GEODC: Greater Eastern Oregon Development Corporation (Gilliam, Morrow, Umatilla, Wheeler, Grant, Harney & Malheur)
Col-Pac: Columbia Pacific Economic Development District (Clatsop, Columbia & Tillamook)
LCOG: Lane Council of Governments (Lane)
Mt. Hood EA: Mount Hood Economic Alliance (Clackamas, Hood River & Wasco)

GAP #5: GROWTH / TURNAROUND CAPITAL FOR THE "FORMERLY BANKED"

There is little capital for the "formerly banked" firms that have had their lines of credit withdrawn and no longer qualify for bank loans.

Oregon businesses, like many others across the country, have experienced declining sales and reduced asset values from the bursting of the real estate bubble. As bank loan portfolios turned sour, lending standards rose. These factors all caused lines of credit to be cut or pulled. Without lines of credit, businesses had to use important cash on the balance sheet in order to finance operations, adding further strain on the business.

The number of businesses that fall into this category is hard to quantify, but several lenders see a large demand coming from businesses that don't qualify under traditional bank lending standards. Craft3 (formerly Enterprise Cascadia), Albina Opportunities Corporation and Neighborhood Economic Development Corporation all perceive a gap and are working to address it by raising capital to lend to the "formerly banked."

FORMERLY BANKED: FAMILY OWNED PHARMACIES IN RURAL OREGON

Michael is an intergenerational entrepreneur in a small town. He owns several pharmacies and plays a strong role in the community, serving on his hospital's board for a number of years. Before the recession began, two things happened: Michael started construction on a new home for his family and an out of state big box pharmacy moved into town. When the recession hit, Michael's bank cut his line of credit in half and credit from his suppliers dried up. Michael was faced with tough decisions. In order to stay afloat, he had to cut his workforce and their benefits by 40%. His company's debt continued to be larger than the business could support. He has struggled to make payments and needed to restructure his company's debt.

Michael's story is a story of dignity – of doing the right thing. He is a community leader and an important employer in town. He is doing his best to avoid bankruptcy. He and his family decided to sell their new home and Michael struck a deal. Craft3 will refinance the business with Michael's personal assets included as collateral. Michael will now be able to stay current with his existing bank debt and has the opportunity to rebuild his business.

GAP #6: WORKING CAPITAL FOR GROWTH OF SMALL MANUFACTURERS

Small manufacturers are limited by a lack of working capital ($150K+ lines of credit).

The growth of Oregon's small manufacturers is limited by a lack of working capital ($150K+ lines of credit). When businesses grow, they require more working capital to finance the additional inventory needed for larger orders. Without working capital, businesses are forced to use their own capital to finance inventory. This is a challenging obstacle to growth, since most of these businesses can't generate enough cash in order to finance the growth, particularly during these challenging economic times.

Banks do offer lines of credit to small businesses, but there seems to be a gap between the small successful growing businesses and the working capital they are receiving. The cause may be lack of an awareness of financing options, a matter of lending standards or few qualified borrowers. The reasons are unclear and more investigation is needed.

GAP #7: MICROLENDING

Microloan capital is sparse in Oregon.

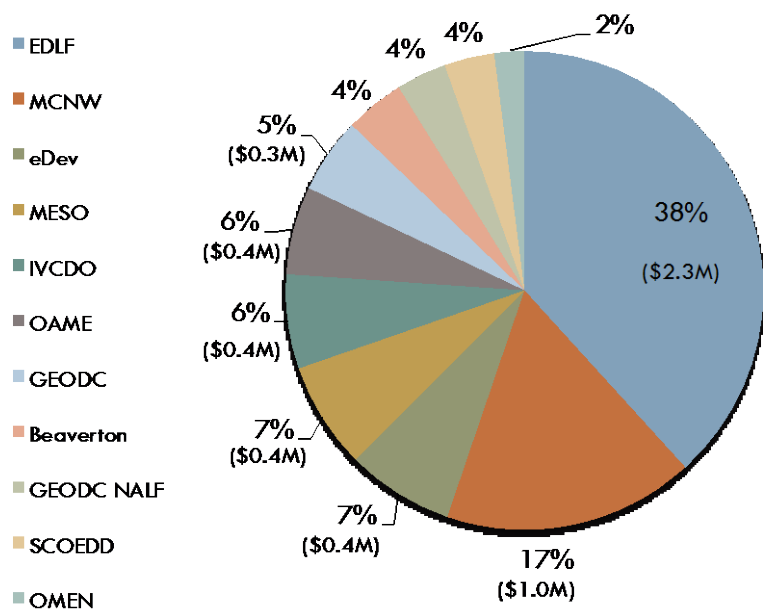
The need for microloan capital appears high and micro-loan funds are proliferating, but several regions remain underserved, such as Josephine and Jackson counties. Business Oregon's $2.25M Entrepreneurial Development Loan Fund is the largest micro-lender in Oregon. Many of the Economic Development Districts (EDD) are permitted to originate micro-loans, but few do, because of the cost. Technical assistance and general client contact for micro-lending is quite expensive relative to traditional bank lending. Most micro-lenders focus on specific communities and are used to complement other services offered by non-profit organizations. The small scale of these programs further exacerbates the expense of micro-lending. The cost of lending runs upwards of 40 cents for every dollar lent. Additionally, micro-capital providers find it far easier to raise loan capital rather than capital to support operations. In addition, micro capital providers come in all different forms, from lower touch higher volume models that may rely on third party technical assistance to higher touch, lower volume models that keep technical assistance in house.

Awareness of micro-loan programs also appears to be low. This is demonstrated by the frequent occurrence of entrepreneurs coming to micro-lenders only after they have racked up thousands in credit card debt. Micro loan capital can be a powerful tool for economic development.

Figure 7.

KEY: (Abbreviation, Organization/ Fund Name & Counties Covered)

EDLF: Business Oregon's Entrepreneurial Development Loan Fund (State-wide)
MCNW: MercyCorps Northwest (State-wide, but most loans are Portland Metro)
eDev: Entrepreneurial Development Services (Lane)
MESO: Micro Enterprise Services of Oregon (NE and N Portland & St. Helens)
IVCDO: Illinois Valley Community Development Organization (Josephine)
OAME: Oregon Association of Minority Entrepreneurs
GEODC: Greater Eastern Oregon Development Corporation (Gilliam, Morrow, Umatilla, Wheeler, Grant, Harney & Malheur)
Beaverton: The City of Beaverton (Beaverton)



GEODC: Greater Eastern Oregon Development Corporation (Gilliam, Morrow, Umatilla, Wheeler, Grant, Harney & Malheur)
SCOEDD: South Central Oregon Economic Development Districts (Klamath & Lake Counties)
OMEN: Oregon Microenterprise Network (State-wide)

MICROLOAN CAPITAL: AERIAL PERFORMANCE ART

Two women with no credit started Night Flight with a $300 loan from Microenterprise Services of Oregon (MESO). In the beginning, Night Flight offered a single night class in a 300 square foot studio. MESO helped the two founders write the business plan. Since it opened, Night Flight has expanded several times and is now located in a 3,200 square foot studio, offering 22 classes a day through eight independent contractors.

GAP #8: NON-BANK LOAN CAPITAL (GAPS & OVERLAPS)

There are both gaps and overlaps within non-bank loan capital.

Craft3, Business Oregon and the Economic Development Districts have the ability to lend anywhere in the state, but they each have different lending standards, processes and mandates. Bank and non-Bank lenders across the state, often collaborate to finance businesses. Despite this collaboration, there appears to be opportunities for these lending institutions to collaborate more effectively.

One opportunity is in the overlap of capital available for loans in the approximate range of $50K-$250K. Both Business Oregon and the EDDs make loans of this size, but due to constraints on the EDD's capital, Business Oregon is able to make a wider range of loan sizes, now up to $1MM.

Another potential opportunity for coordination is on larger loans approximately $1.25MM+ in size for both the traded and non-traded sectors. Business Oregon's Oregon Business Development Fund (OBDF) has an upper loan limit of $1MM, at 80% of a project's value, while Oregon EDD's can only originate loans up to $250K due to federal funding restrictions. When working together, these two groups can originate loans up to $1.25MM. Interviews indicate that in some cases the limits prevented deals from getting done.

There seems to be a gap in $250K - $1MM+ loans for the non-traded sector. This gap appears to arise from OBDF's traded sector restriction, while the EDDs lack such a restriction. Unfortunately, the EDDs can only originate loans up to $250K in size.

Oregon's non-bank lenders play a vital role in financing businesses across the state. Given the common goal of economic development, there is a clear opportunity for non-bank lenders to improve their collaboration.

VI. ADDITIONAL FINDINGS

While this study examined Oregon's capital ecosystem for gaps, several additional elements arose that play an important role in designing solutions to capital gaps.

A FLUID CAPITAL ECOSYSTEM

Oregon's capital ecosystem is not static, but rather constantly evolving. There are numerous reasons for the fluid nature of the capital ecosystem, including:

- Capital gaps may disappear within a year when private capital providers perceive an opportunity and begin investing.

- When an existing investment manager does not raise a follow-on fund, a gap may be created. The lack of follow-on funds from Northwest Technology Ventures and Smart Forest has decreased formal financing for hardware-based technology startups. Similarly, Tamarack Capital's now closed fund has decreased the supply of mezzanine capital.

- Further upstream in the supply of capital, the risk appetite of a fund's limited partners (LP) and its investors, comes into play. During times when there is higher perceived risk in the market, many investors shift their investment portfolio allocations from early stage venture to later stage funds, such as growth equity and leveraged buyouts. As a consequence, there is a reduction in the capital available to early stage venture funds.

- The presence or supply of capital can drive demand for capital. As entrepreneurs hear of capital providers looking to invest in one sector or another, entrepreneurs may decide to finally work on an idea that had been placed on the backburner.

All of these factors combine with the normal fluctuations of demand to create a dynamic capital ecosystem.

Human Capital

It takes more than just financial capital to build businesses. Across every sector, stage and type of business, human capital is a vital component. Quality investing relies on human capital in many forms: entrepreneurs who have grown businesses to achieve significant revenue, managers who have expanded existing businesses, and the keen investor who evaluates risks and opportunities.

Entrepreneurs in High Growth Sectors

Venture capital investors take large risks when investing in technology start-ups. And their performance relies on not only picking the most promising technologies and ideas, but the most qualified entrepreneurs. Over 70% of venture capital providers surveyed brought up the topic of qualified entrepreneurs, while discussing venture investing.

Four characteristics of promising entrepreneurs noted by VCs:

- an aggressive/competitive nature;
- a strong set of business planning and strategy skills;
- experience managing successful start-ups, e.g. grown from $5M to $50M in revenue; and
- domain expertise.

These characteristics illustrate some of the strict criteria that VCs use when vetting investment opportunities. VCs don't usually consider managers in large relatively stable corporations as the leaders needed to run venture-backed startups. The same is true for university professors. There are, of course, exceptions to this rule, but the most capable entrepreneurs are usually considered to come from successful start-ups.

A common sentiment of the VCs interviewed was that *"Oregon has great entrepreneurs, but they* [the type of entrepreneur that they need to invest in*] are just few and far between."* One VC explained it this way *"A number of [Oregon] entrepreneurs want to develop life style businesses, and there is nothing wrong with that, but that's not a business that a VC can invest in."* Even with promising entrepreneurs, VCs look for businesses

and entrepreneurs that can achieve tremendous scale. Targeting large markets is a prerequisite for any VC financed start-up.

The guidance and skill building that occurs through angels and other entrepreneurs, plays a vital role in building more investable entrepreneurs.

Small Businesses

The need to pair financial capital with qualified human capital is just as important in the small business arena. In fact, it is vital for small businesses that need loans. Business assistance reduces the risk to lenders by making borrowers more business savvy. The Small Business Development Centers (SBDC) and other business assistance organizations across the state play an important role in preparing entrepreneurs and existing business owners to qualify for loan capital. Despite the importance of such business assistance and effectiveness of SBDCs, there are challenges. For instance, it is hard for SBDCs to serve potential rural borrowers, due to the distances between remotely located borrowers and SBDCs. A single visit to the SBDC a few hours away is often not sufficient to prepare business owners and entrepreneurs to become borrowers.

Business assistance may be more important than ever, given the national economic challenges. One participant relayed a story of a plumber named Jack whose employer, a plumbing company, went under during the recent economic crisis. Jack wants to go out on his own, but while Jack is a good plumber and perceives a strong demand for his services, he doesn't know how to run a business. Jack needs business assistance in order to qualify for a loan necessary to start his own business.

Investors

Human capital is not only important with entrepreneurs, but with investors as well. This is particularly true when it comes to investing in early stage companies. Successful venture investing requires significant skill, but it is more than just making the right investments. It is also about adding value to those investments once the deal is done. Quality VCs affect their portfolio companies' opportunities for success by lending their networks, sector expertise and guidance on the challenges of managing rapid growth. The earlier stage the business, the more important the guidance provided by investors. Some of the best venture investors are those that have been operators (CEOs and managers) of small rapidly growing business themselves. These VCs know what it takes to build and manage a high growth business. They can identify the necessary characteristics for successful entrepreneurs and know how to build strong teams.

THE VENTURE CAPITAL MODEL

The VC model doesn't work for all start-ups. It's a challenge experienced by start-ups in Oregon and across the country. As mentioned earlier, the venture capital model has strict criteria: a large addressable market; rapid scalability; low up front capital requirements; and a defensible value proposition, usually through patentable intellectual property. If there isn't a strong management team then VCs will need to make sure one is put in place. VCs have a strict mandate to seek out the best deals for their limited partners and, due to the riskiness of early stage investing and the promise made to investors, there is little room for compromise.

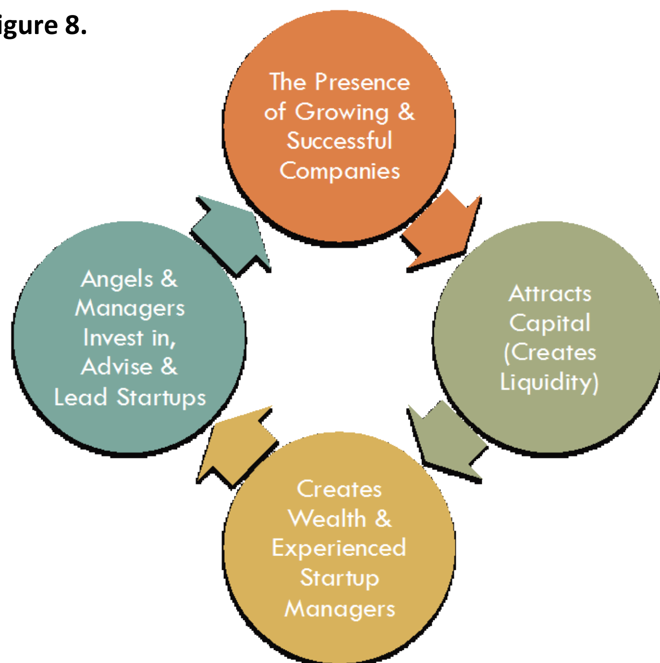
Capital costs and the speed to scale have been a challenge for some start-ups, despite promising technology. Energy production and drug development are two examples of areas that often face these challenges. Non-dilutive financing, such as grant dollars, have played a significant role in enabling venture capital model to function in these areas. Without non-dilutive financing for technology development many drugs or energy technologies would have gone undeveloped. The deeper one digs, the clearer it becomes that not all sectors can be expected to be financed through venture capital alone. Other types of capital and financing mechanisms must be available.

Where Jobs End Up

There is little debate that capital influences where a business locates, particularly with early stage capital. Start-ups often begin by locating in the Bay Area in order to be closer to the capital they hope to raise. Early stage investors located in the Bay Area often encourage their portfolio companies to move nearby, so that investors can stay closely connected with their portfolio companies. There are recent examples of promising start-ups who have remained in Oregon, either wholly or in part. But it remains to be seen if this represents the beginning of a trend. Two elements were often cited as to why entrepreneurs remain, the quality of life and a loyalty to Oregon – a desire to see it grow and flourish.

Capital Cycle

Figure 8.



The path along which industries develop provides an important framework for Oregon's economic development activities. Figure 8 illustrates the basic development cycle of a given industry. The presence of growing and successful companies allows for the possibility that local owners/ entrepreneurs can exit and realize liquidity, either through a private sale or an initial public offering. Exits then create experienced start-up managers and wealth, which may then become the angel investors and experienced entrepreneurs necessary to build the next round of start-ups.

This framework illuminates the importance of the proper functioning of the whole cycle, particularly the presence of quickly growing businesses whose owners have yet to realize exits. The leaders of these businesses are key assets for Oregon.

VII. Summary Findings

The study identified a number of gaps in the supply of capital. Oregon's capital ecosystem is expanding, but there are still opportunities for improvement, particularly in terms of Oregon-grown capital. Not all of the gaps identified are the same. While demand was not the focus of the study, some gaps are clearly larger than others. Some gaps can be filled with capital seeking market-rate returns, while others require a combination of market-rate or grant capital.

The Gaps

1. **Seed stage capital** is sparse across sectors, with the exception of software, for companies with capital needs of a $100K - $500K.
2. **Growth capital** is under supplied for bootstrapped companies with EBITDA of $0.5MM – $3MM.
3. **Clean Technology** businesses lack sufficient capital across stages and the capital that is present is uncertain to exist in the future.
4. **Life Sciences** has a paucity of capital across stages.
5. **Small manufacturers** are limited by a lack of working capital ($150K+ lines of credit).

6. **“Formerly banked”** firms have had their lines of credit withdrawn and no longer qualify for bank loans.
7. **Micro loan capital** is sparse.
8. **Non-bank loan capital** has both gaps and overlaps.

Additional findings from this study are important in designing solutions to address capital gaps.

Additional Findings

- The capital ecosystem is fluid.
- Human capital is a critical component to attract and deploy capital.
- Some companies simply don’t fit the venture capital model.
- Capital influences where businesses and jobs locate, but so does place.
- The proper functioning of a long-term capital cycle is vital to developing sectors.

VIII. Conclusions

By addressing deficiencies in the capital ecosystem, investors have the opportunity to not only realize financial returns, but generate economic development as well. The economic development opportunity is multiplicative. When investors invest in gaps, either directly or through innovative intermediaries[6], they not only contribute capital, but they also facilitate follow on investment that would not otherwise have been made.

Over the last decade Oregon has seen substantially lower investment per capita compared to Washington State, although recently, Oregon has experienced a number of substantial investments from external sources of capital. It remains unclear if these investments will continue. Is there another crop of promising ideas, technologies and entrepreneurs to continue to draw capital from top-tier private investors? Even if these investments do continue, this will not address all of the gaps identified in this study, since several gaps cannot be funded solely by private investors seeking double-digit returns.

It’s Not Just About Capital

Filling the gaps in Oregon’s capital ecosystem will require more than capital. This is particularly true for those gaps that can’t be addressed by private capital alone. First, building more competitive entrepreneurs is vital to economic development. Second, increasing awareness of financing options may go a long way to building small businesses. Finally, some areas of the capital ecosystem could benefit from greater collaboration. For instance, there is limited capital for micro-lending in Oregon, but small micro-lenders continue to emerge in order to serve the very real needs of local communities. Is there an opportunity to expand service to Oregon communities, while collaborating with other lenders to keep costs down?

Delivering Capital

Filling the gaps mentioned can be a challenge. Because Oregon is a relatively small market, traditional PE funds with limited partners prefer to locate in larger markets, such as San Francisco or Seattle, where there are many more investment opportunities and they can quickly put money to work. These funds will invest in Oregon when attractive opportunities arise, but the most successful funds have little need to actively seek out

[6] Intermediaries facilitate the flow of capital to investment opportunities. Examples of intermediaries include a venture capital fund, a community development financial institution or a bank.

deal flow and others are not always clear where to look in Oregon. This means that promising Oregon businesses need to be ready to go seek out capital where capital resides and enlist assistance if they don't have the networks themselves.

For some, the first reaction they have to solve the problem is to raise a fund and restrict the geographic focus of its investment efforts to Oregon. Unfortunately, this constraint on investment managers inhibits their ability to generate returns comparable to managers without such restrictions. When such a restriction is in place, some compromise must be made in terms of strategy or expectations, such as lower expected returns or broader sectors targeted for investment. These types of restrictions necessitate a degree of creativity in designing funds to invest in a given gap.

Oregon has a track record of creativity in funding mechanisms for capital gaps. The Oregon Angel Fund, the Portland Seed Fund, the Oregon Growth Account and the now past Oregon Resource and Technology Development Corporation are all good examples of creative vehicles. This type of creativity is needed if gaps are going to be filled. Of course, new intermediaries will not always succeed, but in order to improve, there must continue to be those that take the risk.

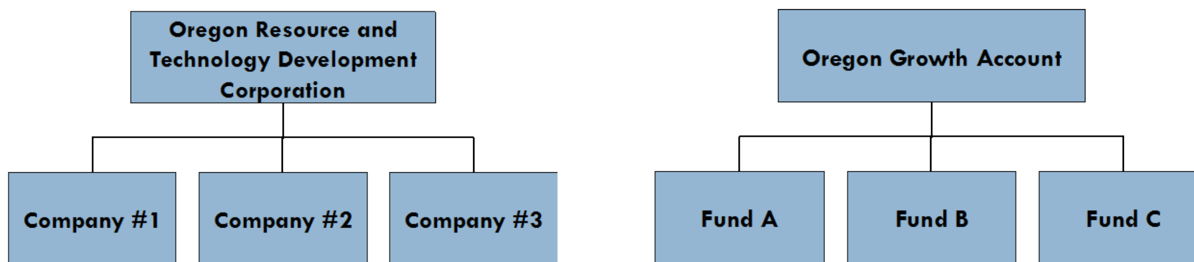
SCALE

The scale of capital needed is an important item to address. The inclination is to create a large fund, but if too much capital is raised for Oregon-specific investments, then investors will be disappointed in the financial returns. That said, new funds need to be appropriately capitalized in order to achieve the expected returns. It is also important to note that the presence of capital can actually stimulate the demand for capital. All signs indicate that lower levels of qualified businesses contribute to Oregon's lower investment per capita relative to Washington. Given these factors, slowly and steadily increasing capital for investment may appropriately stimulate demand, while remaining cautious not to over commit capital.

In addition, two items appear important to consider. First, the governance of any new investment group needs to be designed to support the achievement of targeted investment returns. Funds can do so by staffing investment teams with high quality managers and an advisory group with investment experience. This will prepare the vehicle for success and aid in attracting private investors. Secondly, a favorable environment for investment can encourage affluent Oregonians to reinvest in Oregon. While many are pessimistic about the ability to make targeted changes to tax structures for investors, numerous capital providers noted that Oregon's taxes on capital gains and limited partnerships do little to encourage investors to reside in Oregon and/or diminishes their investment activity if they choose to stay in Oregon. This is particularly damaging to Oregon's supply of early stage capital, the stock of capable CEO's and advisors for new start-ups.

HOW TO SUPPLY CAPITAL

There is no clear answer to the question of how to deliver capital to gaps. The Oregon Resource and Technology Development Corporation (ORTDC) focused on direct early stage investments in Oregon and was managed by two investment professionals. The Oregon Growth Account (OGA) operates as a fund of funds investing in existing and new managers across stages that include Oregon as part of their geographic region.



How those gaps are filled is important. Capital can be deliberately supplied in two basic ways. The first method is a top down approach with prominent institutions acting as anchor investors in a fund focused on Oregon, which would go seek out investments in gaps. The ORTDC and OGA are both examples of top down approaches. The second approach is a more bottom up method, whereby smaller funds are initiated on a one-off basis, perhaps through a competitive request for proposal process, similar to the one the Portland Development Commission used to create the Portland Seed Fund. While the one off funds are much easier to create and manage, they might not fill all the gaps because they will still have defined mandates that only allow so much flexibility. On the other hand, larger or broader reaching funds, could embed enough diversification that the risk of one-off investments in niche areas would be minimized. A top down approach though a broader fund is more complex than a bottom up approach.

A top-down approach to investing across gaps would benefit from a certain degree of agility and diversification. In the future, a fund investing across stages, sectors and capital types, in a market such as Oregon, will require a unique structure. At times, it may make sense to seed new funds focused on particular investment areas and at other times it may make sense to make one investment in a particular niche. Since investment opportunities will ebb and flow, it may be hard to retain a full time staff, but the alternative is to use existing investment managers as consultants and that brings the inevitable conflicts of interest. Additionally, the ability to invest across stages, sectors and capital types runs counter to the trend of specialization in investing.

The challenge becomes, how does one create and fund a properly incented management team that can make sound investment decisions, deploying capital where opportunities arise? More exploration is needed.

Both bottom up and top down methods are reasonable approaches to filling capital gaps. A well-designed top-down approach is clearly more complex compared to a bottom up approach. Not only does it require more careful design, but also, a larger amount of anchor capital. Beyond more effectively filling gaps, a larger and broader reaching fund would be in a position to play a stewardship role for Oregon's capital ecosystem, marketing financing options and collaborating with related groups such as Oregon Entrepreneurs Network.

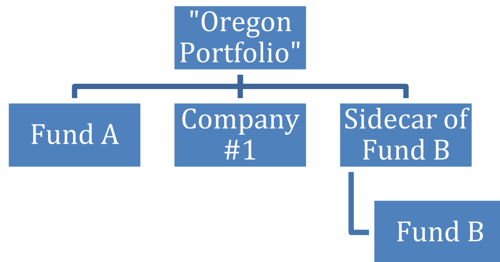
IV. Recommendations

Create an Agile Investment Vehicle

Create an entity whose mission is to foster a self-sustaining Oregon capital ecosystem through study of the capital ecosystem, investment, marketing of financing options and engagement with stakeholders of the capital ecosystem. Authorize the entity to invest the "Oregon Portfolio" directly into companies, through

funds and sidecar funds[7]. The governing entity of the Oregon Portfolio should adhere to and promote the following eight principles:

Potential Structure:



1) **Target Capital Gaps**
   (A) Invest in capital gaps for economic development and financial returns.

2) **Appropriate Governance**
   (A) Utilize an impartial governance structure that employs a private investment board with investment experience.

3) **Leverage to Achieve Effective Scale**
   (A) Target intermediaries that can achieve the necessary scale to execute.
   (B) Reduce the tax burden on serial entrepreneurs who roll over capital gains into new startups, angel investors that invest directly in Oregon companies and investors in the Oregon Portfolio.

4) **Innovation**
   (A) Use the Oregon Portfolio to fund innovative intermediaries.

5) **Agility**
   (A) Design an agile investment entity with the ability to respond quickly with various forms of capital to fill gaps, especially through direct investments.

6) **Steady Funding**
   (A) Develop a modest, but growing source of capital to drive demand and wise investment.

7) **Marketing & Coordination**
   (1) Market sources of capital.
   (2) Convene capital providers to collaborate in the design of capital access solutions.

Lead Dialogs

Initiate and lead two separate dialogs among the stakeholders of two capital gaps, the life sciences and loan capital providers.

These dialogs should be facilitated by an impartial organization. The gaps in life sciences and loan capital represent complex systems that not only need capital, but collaboration and coordination as well. While all

[7] A sidecar fund is a committed source of capital that invests alongside another fund on a deal by deal basis.

stakeholders have an interest in advancing these areas broadly and addressing issues of capital access, utilizing a third party to identify the unique challenges and opportunities could be beneficial for designing solutions.

Fund Technical Assistance / Mentorship

Fund high impact technical assistance and mentorship programs for entrepreneurs throughout the state.

Financing is needed for both existing programs and new innovative programs that reach further in building investable entrepreneurs. Business assistance plays a critical role for the advancement of small entrepreneurs in both urban and rural parts of the state. Mentorship for young entrepreneurs with big ideas is vital in building successful start-ups.

X. For Further Investigation

This study represents a first step in identifying and analyzing Oregon's capital ecosystem. The next iteration of this study has the opportunity to improve by addressing the following:

- State Capital: what are all the sources of capital for economic development and how are they used?
- Grant Capital: who are the local grant makers in the state and where do the grants go?
- Angel Capital: how much angel capital is really deployed and where does it go?
- Banking Capital: how much capital have banks lent to businesses and for what purposes?

Opportunities for additional economic development research might include:

- An analysis of other states' investment strategies for economic development. What are the lessons learned?
- A longitudinal tracking of Oregon start-ups, investment and the Oregon jobs created and maintained.