Alumni Ventures

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Emerging U.S. Markets

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"Maybe emerging markets are the most compelling place for venture capitalists to invest…Maybe the most compelling emerging market is America, just outside of Silicon Valley."

—*Chris Olson, Drive Capital*

Introduction

The past 50 years of venture investing have largely been dominated by three key venture hubs in the U.S.: California, New York City, and Boston. We believe that the future will be different. We envision a much more diffuse market within the U.S. and globally, offering access to innovative companies at more attractive valuations. In the U.S., we see geographic arbitrage through great startups in Seattle, Austin, Salt Lake City, Madison, St. Louis, and more. In this paper, we'll focus on these opportunities in the U.S. For an international view, see our global emerging markets white paper.

Key Ingredients for Emerging Markets

Emerging U.S. markets are the fastest-growing entrepreneurial hubs across the nation — and they're starting to draw interest from venture capital funds. These emerging markets generally have strong tech communities and lower operational costs than Silicon Valley, NYC, or Boston. Investing in domestic emerging markets offers the opportunity for equity in promising startups at potentially superior valuations due to the relative unavailability of capital through geographic arbitrage.

Emerging markets share a number of common characteristics — critically, a unique and interconnected combination of talent, investment, and institutions.

1. Talent: Human Capital

Disruptive companies are built by visionary individuals with the skills and insight to actualize ideas. Research from INSEAD and Harvard suggests that access to talent — or human capital — may be even more important than access to financial capital in determining the success of early-stage ventures.[1] Human capital includes not only founders and employees, but mentors and advisers, as well as the stakeholders supporting the growth of the company: suppliers, customers, and even neighbors. Building diverse and fruitful human relationships helps founders gain knowledge, avoid pitfalls, break down barriers, and open doors to new opportunities.[2]

2. Investment: Financial Capital

While human capital may be the life blood of every startup, financial capital is essential to fund research and development, as well as to fuel market entry before the business achieves scale. Research from the Kauffman Foundation[3] indicates that the key factor holding back venture formation is lack of access to different forms of financing. At least 83% of entrepreneurs at the launch stage have no access to bank loans or venture capital, with 65% relying on personal and family savings for startup capital, while ~10% carry business-related balances on their personal credit cards. As companies mature toward revenue and ultimately profit generation, debt financing becomes increasingly important, particularly around the fourth year of existence.[4]

Two years after raising capital, funded companies achieved 30% more revenue growth and 50% more employment growth than companies that did not raise funding.

A separate study found that two years after raising capital, funded companies achieved 30% more revenue growth and 50% more employment growth than companies that did not raise funding.[5] VC funding can serve as a stamp of quality, validating credibility and leading to more opportunities. Successful exits can also contribute to a cycle of repeat entrepreneurship, spinoff opportunities, knowledge transfer, and broad encouragement of entrepreneurship in the community.[6]

1 David R. Clough, Tommy Pan Fang, Balagopal Vissa, and Andy Wu, "Turning Lead into Gold: How Do Entrepreneurs Mobilize Resources to Exploit Opportunities?," *ANNALS* (Academy of Management) 13, no. 1 (2019): 240–271. doi:10.5465/annals.2016.0132.

2 Tishin Donkersley, "Access to Human Capital Is Just as Important as Funding," tech.co, February 14, 2018.

3 Victor Hwang, Sameeksha Desai, and Ross Baird, *Access to Capital for Entrepreneurs: Removing Barriers* (Kansas City: Ewing Marion Kauffman Foundation, April 2019).

4 Alicia Robb, E.J. Reedy, Janice Ballou, David DesRoches, Frank Potter, and Zhanyun Zhao, *An overview of Kauffman Firm Survey: Results from the 2004–2008 data*, (Kansas City: Ewing Marion Kauffman Foundation, May 2010). Quoted in Hwang, et al., *Access to Capital*.

5 Hwang, et al., *Access to Capital*. Estimates provided by Peter Roberts (2018), using the Entrepreneur Database Project.

6 Rebel A. Cole, Douglas J. Cumming, and Dan Li, "Do Banks or VCs Spur Small Firm Growth?" (October 30, 2015), *Journal of International Financial Markets, Institutions and Money*, no. 41 (2016): 60-72. doi:10.2139/ssrn.2517291. Quoted in Hwang, et al., *Access to Capital*.

However, venture capital sometimes steers clear of the long-run, highly capital-intensive investments that can lead to technological breakthroughs and create new industries and jobs. Ventures which require large investment to give them time to demonstrate product viability often face the *valley of death,* where funding is hard to come by.[7]

3. Institutions: Political, Social, and Intellectual Capital

To attract and maintain cutting-edge talent, a community needs supportive institutions. Those institutions include (i) local governments, (ii) social networks, and (iii) a major research university that serves as a bridge between community and industry.

First, the role of ***local governments*** in promoting innovation is essential. They can foster policies that promote innovation as well as inclusivity and immigration, which can enrich the diversity of thinking.

Second, supportive ***social networks*** can speed innovation. Informal social networks of like-minded individuals provide entrepreneurs and technologists with access to mentors, customers, and other founders — enabling sharing of ideas and best practices. These professional social networks also serve the community, lending their expertise to policymaking and driving policy change toward shared goals. Once the community coalesces, the group's shared ambitions and values can form a virtuous cycle that strengthens local institutions, leading to policies that foster human capital such as social services that improve quality of life and spillover benefits such as education.

To attract and maintain cutting-edge talent, a community needs supportive local governments, social networks, and a major research university that serves as a bridge between community and industry.

Finally, one of the most important ways that political institutions can boost and become inextricably linked to innovation is through supporting a ***major research university***. Jonathan Gruber outlines a powerful case for renewed investment in our greatest academic institutions to maintain global competitiveness.[8] Local governments have seen the incredible impact of partnering with anchor research universities on startup accelerators and incubators. In Madison, the nonprofit Wisconsin Alumni Research Foundation (WARF) Accelerator Program was the nation's first designated patent and licensing organization, providing everything from funding to advice and turning research and innovation at UW-Madison into commercially promising technologies.[9] Local engagement and government help de-risk the high chance of failure for deep tech innovation, supporting some of our most visionary companies.

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7 Jonathan Gruber and Simon Johnson, *Jump-Starting America: How Breakthrough Science Can Revive Economic Growth and the American Dream* (New York, NY: PublicAffairs, 2019), 9 & 99-101.

8 Ibid.

9 Vivian Giang, "How America's dying rust belt town can transform into 'smart cities' of the future," *Fast Company*, January 14, 2019.

AV's thesis is that the alumni of those universities enable communities to achieve breakout growth by sourcing and nurturing talent, supplying local early-stage capital, and supporting local institutions that create jobs and promote innovation. Those alumni are the backbone of our venture deal sourcing, helping us catalyze innovation in high-potential markets across the U.S.

Challenges & Opportunities for Venture Investment

Spillover benefits such as positive social impact often result from venture investments. In fact, research suggests that the spillover benefits of venture investment in R&D are nine times larger than those from corporate R&D.[10] But when those benefits aren't going to VCs, there's a tendency for them to underinvest in innovation. This forms a negative feedback loop, which restricts funding for companies as well as the universe of deals for VCs. The net result to investors is a myopic focus on companies with a clear path to revenue/short ramp-up, low capital demand, and geographic proximity to the investment firm.

Crunchbase built this map using a dataset of over 82,000 investor-company relationships formed between Q1 2012 and November 1, 2017. "The nodes (the circles) are placed according to their corresponding metro areas' latitude and longitude on a Mercator projection, and they're sized based on that metro area's level of connectedness. Bigger nodes—like Boston and NYC in the Northeast, and the SF Bay Area in the West, for example—are more connected than smaller ones." View the article for more details.

These biases can create pockets of relative value. In areas with the highest concentration of venture financing (California, Boston, New York), companies trade at a premium due to an oversupply of nearsighted capital. In contrast, undervalued companies sell for a discount in "flyover states" less frequented by VCs. These nodes of regional investment focus can be seen in the Crunchbase visualization above.[11] The map shows intra-regional investing activity in different parts of the U.S., with (a) the circles representing metro areas — and the size of those circles reflecting how connected they are, and (b) the lines showing connections between investors and companies in different cities — with the thickness of the lines indicating more connections.

10 Monika Schnitzer and Martin Watzinger, Measuring the Spillovers of Venture Capital, June 24, 2015.

11 Jason D. Rowley, "Hometown Heroes: Where And Why Venture Capitalists Invest Close To Home," Crunchbase News, November 14, 2017.

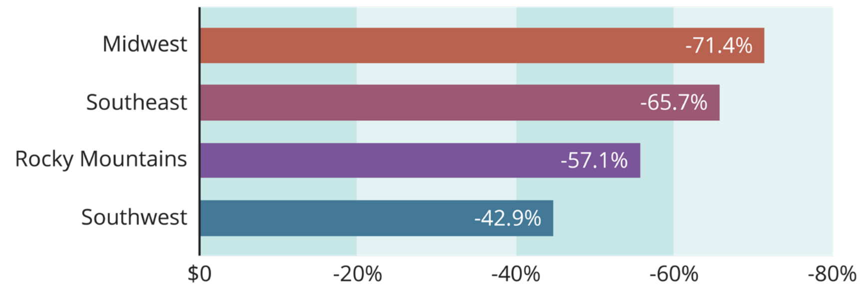
Research from the Kauffman Foundation finds that median startup valuations are up to 32% higher in the Northeast and the West Coast compared to the geographies in between.[12] Generalizing across the 90,000 startups covered by the study, companies located in emerging U.S. markets offer venture investors more upside through equity ownership compared to the core markets of the Pacific and Northeast. Due to the geographic discount, the same equity investment would historically purchase anywhere from 1.5 - 2.5x as much equity in an emerging market than a core market.

Another Crunchbase study that tracks companies with complete investment and exit valuation data shows that while there are fewer deals from emerging U.S. markets than in core geographies, these companies produce exits of greater value and better returns in terms of MOIC.[13] This could suggest local companies with lower valuation, greater potential, or both.

We believe that these dispersion trends will only accelerate. In fact, the 2021 US Venture Capital Outlook from PitchBook predicted that for the first time, fewer than 20% of the total number of U.S. venture deals will come from the California Bay Area, with other geographies rapidly gaining share. "The Covid-19 pandemic and subsequent exodus from San Francisco will only exacerbate this trend,"

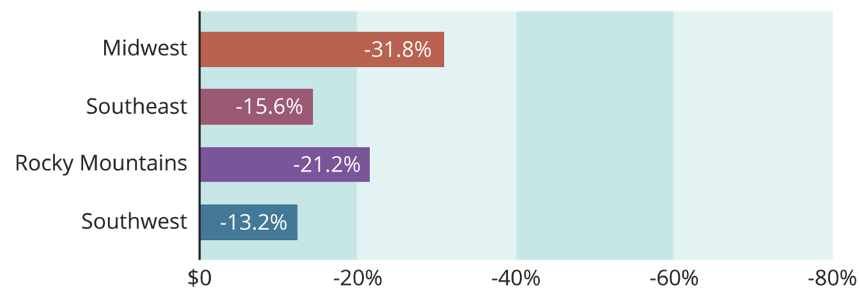
Dollars Raised

Percentage difference in median raised compared to combined Pacific and Northeast regions



Equity Sold

Percentage difference in median round compared to combined Pacific and Northeast regions



Simulated Equity Investments

Simulated $1 million equity investments at each region's median ownership

	Equity Investment	Equity Ownership	Ownership Delta
Pacific/Northeast	$1,000,000	13.00%	-
Midwest	$1,000,000	31.00%	2.4x
Southeast	$1,000,000	32.03%	2.5x
Rocky Mountains	$1,000,000	19.73%	1.5x
Southwest	$1,000,000	23.88%	1.8x

SOURCE: Data for the above charts and tables was obtained from Kauffman Fellows

12 Collin West and Gopinath Sundaramurthy, "Median Startup Valuations Are Up to 32% Higher in the Pacific and Northeast Regions," Kauffman Fellows, April 3, 2020.

13 Jason D. Rowley, "The Midwest Produces Fewer But Mightier Startup Exits," Crunchbase News, May 21, 2018.

writes PitchBook analyst Kyle Stanford, noting that Silicon Valley's share of venture deal count in the U.S. has fallen every year since 2006. Some of the forces driving the continued shift include the rise of remote work during the pandemic, the high cost of living in the Valley, and the fact it's become more expensive to finance startups in the Bay Area.[14]

The Q4 2020 Venture Monitor from PitchBook drills deeper into the roots of the transition: "If investors continue to use teleconferencing software to source, diligence, and invest in nonlocal companies, a large amount of capital could be unlocked for businesses headquartered outside of traditional investment hubs. In fact, excluding our deal count estimate, in 2020 the Bay Area saw one of the largest declines in angel and seed deal counts of the 10 most active CSAs, realizing just 81.2% of its 2019 total. Atlanta, on the other hand, has already counted a 13.1% increase over 2019, nearing 100 completed angel and seed deals for the first time since 2014. The end of 2020 has been especially difficult on San Francisco, with strict lockdowns, rampant COVID-19 cases, and a migration of tech talent to other areas around the country, and we believe the year was a harbinger for investment trends to shift further outside of the region's venture hub."[15]

Roseanne Wincek of Renegade Partners believes that the forced migration to

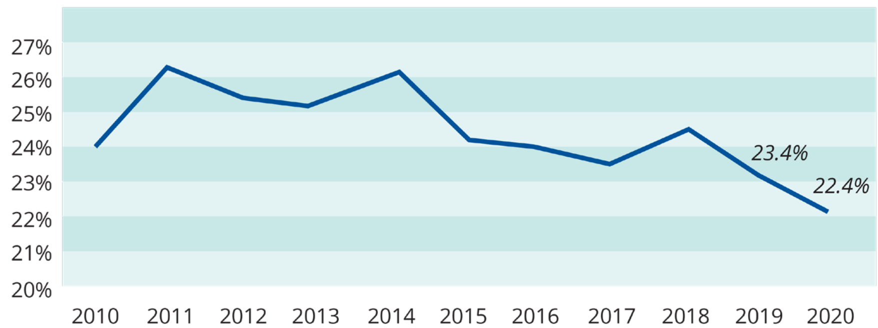
Median Capital Raised & Exit Valuations of Venture-Backed Startups by U.S. Census Region

	Median Total Equity Funding	Median Exit Valuation	Sample Size
West	$38,500,000	$163,000,000	713
Northeast	$32,000,000	$148,150,000	336
South	$28,340,000	$130,000,000	195
Midwest	$15,500,000	$176,840,000	92

Median Multiple On Invested Capital for Venture-Backed Exits, by Region

	Median Exit MOIC	Number of Exits
West	4.29x	577
Northeast	3.89x	259
South	4.35x	140
Midwest	5.17x	63

Number of Bay Area Deals as a Proportion of Total U.S. VC Deals



SOURCE: PitchBook NVCA Venture Monitor

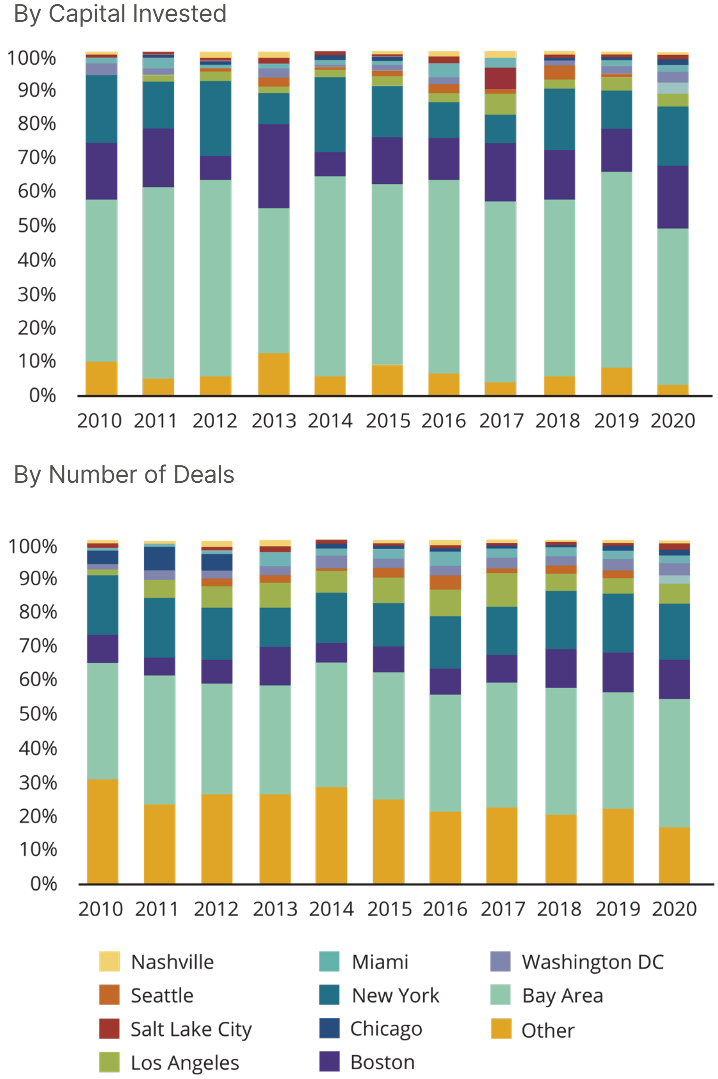
14 Lori Ioannou, "Silicon Valley's share of venture capital expected to drop below 20% for the first time this year," CNBC, January 14, 2021, updated January 15, 2021.

15 PitchBook, *PitchBook-NVCA Venture Monitor*, January 13, 2021.

Zoom (and digital networking and ephemeral content platforms such as Matchbox. VC and Clubhouse) is actually a powerful benefit to VCs. Investors now have more time to meet companies, and given there's more capital in the system than ever before, it's an advantageous time for entrepreneurs.[16] Relative to initial expectations, the net result of COVID-19 on VC workflow has been negligible, if not positive.[17]

While there are drawbacks to diligence by Zoom (e.g., assessing management team dynamics and company culture[18]) and a tendency for some VCs to prefer more mature ventures with concrete financial metrics, we believe that VCs will grow increasingly comfortable with remote due diligence. As a result, portfolios will feature greater geographic diversity going forward.[19] A diversified strategy, such as AV's Emerging Markets Fund, has the potential to benefit from not only the most innovative entrepreneurs, but also a discounted valuation, potentially enabling investors to generate greater returns in the future.

U.S. VC Funds by Combined Statistical Area



New Markets, New Opportunities: Examining the Data

While the opportunity in emerging U.S. markets is compelling, the bias towards geographic proximity and familiarity have historically led them to be under-exploited by investors. Even through 2020, as the business world adapted to COVID-19, the NVCA and Pitchbook found that capital formation continued to consolidate in Tier 1 tech hubs with already-thriving startup ecosystems.

16 Alyssa Newcomb, "What founders and venture capitalists have to say about fundraising during COVID," *Fortune*, February 20, 2021.

17 Lee Simmons, "VCs and COVID-19: We're Doing Fine, Thanks," *Insights by Stanford Business* (blog), September 22, 2020.

18 Don Butler, "Investing Over Zoom: Lessons On How Early Stage Investment Is Evolving During Covid-19," *Forbes*, August 26, 2020

19 PitchBook, *Venture Monitor*.

There are more interesting insights if you dig deeper into both capital invested and deals by region. First, the top graph at right (capital invested) shows remarkably little change over a decade and a half of venture investing. With minor fluctuations, the West Coast has retained the lion's share (50%+) of venture investment from a capital perspective, despite value opportunities in regional markets and massive advances in communication. Substantial opportunity remains for investors willing to diligence potential investments outside of their geographic comfort zones.

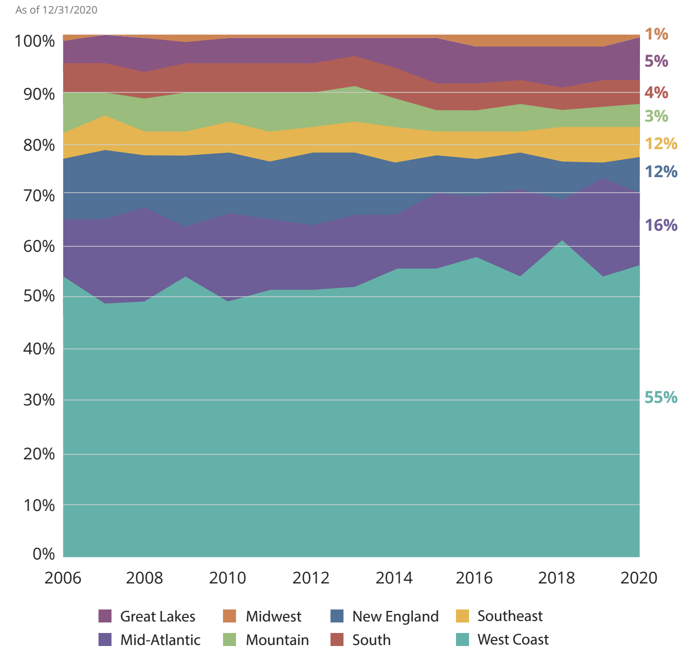
Second, the difference between two graphs, showing capital invested and number of deals, shows that regions such as the West Coast or New England have a greater share of capital invested than number of deals. This suggests a higher average transaction size in those areas, which likely reflects more developed late-stage venture ecosystems.

Third, while much attention has been captured by the prediction the Bay Area alone will fall below 20% of overall deal flow, this only touches on the number of deals for one specific West Coast market. Aggregate market activity in terms of capital invested remains regionally concentrated: the West Coast has retained ~40% share of deal activity and 50%+ of capital invested, as noted above.

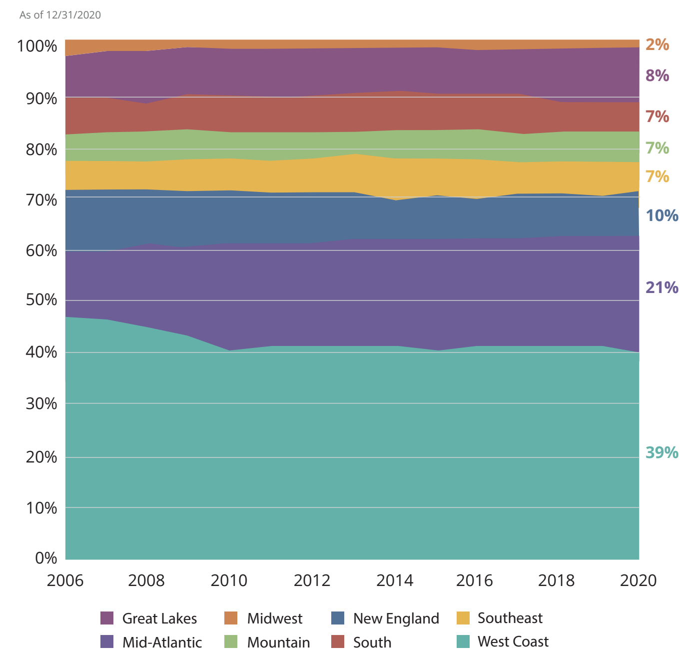
Finally, the central insight of this paper — that keen investors are working to unlock pockets of innovation all across America — is strongly borne out by the long-term data. Comparing the distribution of deal volume at study inception (2006) and at present (2020), the trend toward greater diversification is clear.

- The West Coast shrank from 46% to 39% and New England from 12% to 10%.
- Other regions notched up gains: Great Lakes increasing from 6% to 8%, Midwest from 1% to 2%, and Mountain from 5% to 7%.

U.S. VC Deal Activity ($) by Region



U.S. VC Deal Activity (#) by Region



SOURCE: PitchBook NVCA Venture Monitor

- The South and Southeast remained flat.

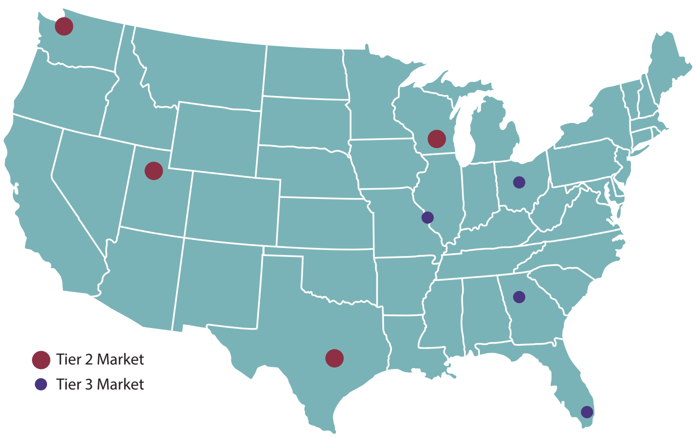
- The Mid-Atlantic (which includes both the Tier 1 NYC market as well as emerging markets such as Pittsburgh and Raleigh-Durham) also expanded from 16% to 21%. While granular data for the NVCA study is unavailable, we believe that much of the growth in the Mid-Atlantic can be attributed to emerging growth areas.

Since core markets also contain a greater share of late-stage venture companies, we can reasonably predict that statistics for capital invested will eventually converge with deal volume as early-stage startups in emerging U.S. markets mature.

Future Hotspots of American Innovation

While progress has been made in unlocking the value of "hidden next door" entrepreneurs, a tremendous amount of opportunity remains in identified emerging U.S. markets (Tier 2) as well in the next up-and-coming geographies (Tier 3). Known focus areas for emerging U.S. companies including Seattle, Austin, Madison (WI), and Salt Lake City.

Tier 2 and 3 Market Locations

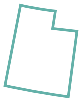


Tier 2 Markets

Seattle is anchored by blue-chip stalwarts including Microsoft and Amazon and has long been a hub for top talent given a high quality of life, preponderance of research universities, and an inclusive and pro-immigration political climate. Even prior to the pandemic, the migration of tech companies from the Bay Area to Pacific Northwest was remarkable and served as a precursor of further shifts.

Austin has also benefited from the cluster of human capital driven by local tech incumbents Texas Instruments and Dell. It too is anchored by strong research universities, quality of life, and appealing political climate for tech workers. Companies like HomeAway (acquired by Expedia), Sailpoint, Q2 Software, and Cirrus Logic were all locally started and have achieved great success.

Madison is similar to Austin, with a world-class public university, progressive political culture in an otherwise largely red state, presence of local startups (including Epic Systems), and unique public-private collaborations such as the University Research Park incubator. Madison was the metro area with the largest influx of tech workers in 2020.



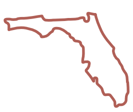
Salt Lake City has similarly benefited from top-notch universities such as BYU and early startup success stories (including Qualtrics). In addition, Salt Lake emphasizes intellectual curiosity and the importance of community, shared formative experiences through missionary service, and the ability to communicate across multiple languages and cultures — all conducive for an entrepreneurial culture. The Milken Institute classified the Provo-Orem suburb as the economically best-performing city in America of 2020.[20]

Tier 3 Markets

While the communities above have led the growth of emerging U.S. markets over the past decade, other markets still in the format stages with similar characteristics include St. Louis, Miami, Atlanta, and Columbus (OH).

St. Louis is often overlooked by coastal investors, but it's home to entrepreneurial success stories including Enterprise, Express Scripts, Anheuser-Busch, Panera Bread, and Energizer. With a legacy of innovation, a rich body of human capital, and an attractive quality of life, St. Louis has strong potential to emerge as a hotspot for venture creation. Two areas of strength for St. Louis include cybersecurity and agtech. Cybersecurity benefits from a wealth of local talent from organizations like the National Geospatial-Intelligence Agency (NGA) and Scott Airforce Base. Agtech innovation is driven by global blue chips including Monsanto, research institutions such as the Donald Danforth Plant Science Center, and the emerging 39 North innovation district.

Similarly, **Atlanta** benefits from a strong tech community and entrepreneurial infrastructure. It also boasts exceptional local universities (including Emory and UGA) and a metropolitan area that is progressive and attractive to talent. Historically ignored by VCs, Atlanta has the potential to become "the new Austin."



Even further south, **Miami** has incredible potential. The city has scooped up "transplant" investors and founders leaving San Francisco and New York City, "partly propelled by the pandemic, seeking a welcoming government, lower taxes, a decent climate, less expensive housing, a dynamic lifestyle and the type of diversity that's proven to help companies thrive." In 2020, Miami saw $1.9 billion capital investment, up 21x from $89.5 million in 2010.[21] Recently, SoftBank CEO Marcelo Claure announced a $100 milion fund dedicated to startups based in or moving to Miami.[22]

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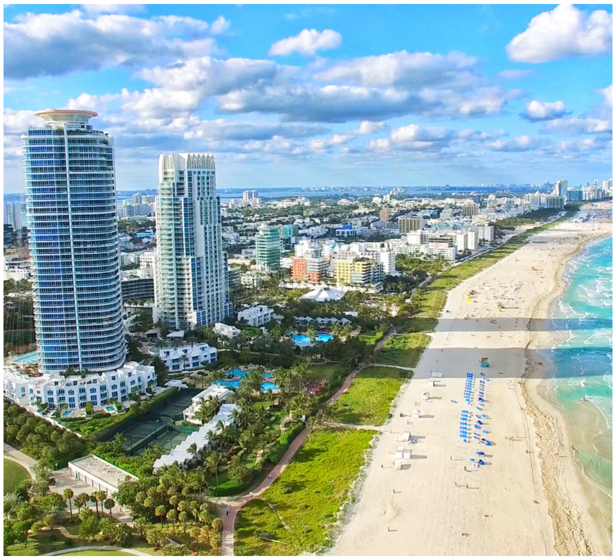
20 Misael Galdamez, Charlotte Kesteven, and Aaron Melaas, *Best-Performing Cities 2021: Foundations for Growth and Recovery* (Milken Institute, February 17, 2021).

21 Marcella McCarthy, "SoftBank is just the latest validation for Miami's booming startup scene," *Tech-Crunch*, February 2, 2021.

22 Natasha Mascarenhas, "SoftBank earmarks $100 million for Miami-based startups," *TechCrunch*, January 28, 2021.

Columbus offers sheer market size and a wealth of untapped intellectual horsepower. These factors motivated the founding partners of Drive Capital to locate their spinout from Sequoia Ventures in Columbus. For Drive's Chris Olson, "looking at the data, [I could see the] economy of Ohio is bigger than Turkey. The economy of the Midwest would be the fourth-biggest economy in the world. It's bigger than Brazil. It's bigger than Russia. It's bigger than India. And it has this legacy educational infrastructure that's been producing more engineers than any other corner of the planet. If this thesis is right, maybe emerging markets are the most compelling place for venture capitalists to invest — but maybe the most compelling emerging market is America, just outside of Silicon Valley."[23]

The Investment Opportunity



To summarize, there are a number of trends that make us optimistic about emerging market opportunities in the U.S.:

- The convergence of human, financial, and institutional capital in a number of markets.
- The accessibility of powerful technology, the acceptance of remote work, and the availability of freelance talent encouraging work force dispersion.
- The lower launch costs for startups outside Tier 1 markets and lower cost of living in general.
- The willingness of venture capitalists to adapt to remote due diligence.
- The growing awareness of and proof points for entrepreneurial opportunities and attractive valuations in Tier 2 and 3 markets.

With the evidence and tailwind trends growing, we feel the time is right for a venture fund dedicated to emerging market investments in the U.S. and abroad. To learn more about AV's Emerging Market Fund, you can explore our fund materials here, or schedule a call.

23 Connie Loizos, "Two ex-Sequoia VCs: The most 'compelling emerging market' may be America, outside of Silicon Valley," *TechCrunch*, January 12, 2021.

About the Author

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Isaac is an experienced investor and analyst, leading research, sourcing deals, and coordinating diligence for venture and growth equity firms. Prior to joining Castor, he was an Investment Consultant to Tiger Global Management and founded Buttonwood Gaming, developing a digital economic simulation game with collaborators at MIT and worldwide. Earlier, Isaac served as Senior Analyst, Business and Research at Catalyst Investors, and an Associate at Samson Capital Advisors (now Fiera Capital). Isaac has an MBA from MIT's Sloan School of Management, an AB from Brown University in Economics and Political Theory, and is a Chartered Financial Analyst (CFA) charterholder.