

RISE OF THE GLOBAL STARTUP CITY

The Geography of Venture Capital Investment
in Cities and Metros across the Globe

Cities

The Cities Project at the Martin Prosperity Institute focuses on the role of cities as the key economic and social organizing unit of global capitalism. It explores both the opportunities and challenges facing cities as they take on this heightened new role.

The Martin Prosperity Institute, housed at the University of Toronto's Rotman School of Management, explores the requisite underpinnings of a democratic capitalist economy that generate prosperity that is both robustly growing and broadly experienced.

RISE OF THE GLOBAL STARTUP CITY

The Geography of Venture Capital Investment
in Cities and Metros across the Globe

Richard Florida
Karen M. King

Contents

Executive Summary	6
Introduction	8
Mapping the World's Leading Venture Capital Centers	10
Mapping Venture Capital Investment per Capita	10
Mapping Venture Capital Investment as a Share of Economic Output	13
Venture Capital Centers Compared to Leading Global Cities	16
Venture Capital Investment by Geographic Region	18
Venture Capital Investment in North America	18
Venture Capital Investment in Europe	22
Venture Capital Investment in Asia	27
Conclusion	32
Data and Methodology	33
References	34
About the Authors	35

Exhibits

Exhibit 1	Global Venture Capital Investment	10
Exhibit 2	Top 20 Global Metros by Venture Capital Investment	11
Exhibit 3	Venture Capital Investment per Capita by Metro	12
Exhibit 4	Top 20 Metros by Venture Capital Investment per Capita	13
Exhibit 5	Venture Capital Investment as a Share of Metro Economic Output	14
Exhibit 6	Top 20 Metros by Venture Capital Investment as a Share of Economic Output	15
Exhibit 7	Comparing Global Cities and Venture Capital Investment	17
Exhibit 8	Venture Capital Investment in North America	18
Exhibit 9	Top 20 Metros in North America by Venture Capital Investment	19
Exhibit 10	Venture Capital Investment in North America per Capita	20
Exhibit 11	Top 10 Metros in North America by Venture Capital Investment per Capita	21
Exhibit 12	Venture Capital Investment in North America as a Share of Metro Economic Output	21
Exhibit 13	Top 10 Metros in North America by Venture Capital Investment as a Share of Metro Economic Output	22
Exhibit 14	Venture Capital Investment in Europe	23
Exhibit 15	Top 20 Metros in Europe by Venture Capital Investment	24
Exhibit 16	Venture Capital Investment in Europe per Capita	25
Exhibit 17	Top 10 Metros in Europe by Venture Capital Investment per Capita	25
Exhibit 18	Venture Capital Investment in Europe as a Share of Metro Economic Output	26
Exhibit 19	Top 10 Metros in Europe by Venture Capital Investment as a Share of Metro Economic Output	26
Exhibit 20	Venture Capital Investment in Asia	27
Exhibit 21	Top 20 Metros in Asia by Venture Capital Investment	28
Exhibit 22	Venture Capital Investment in Asia per Capita	29
Exhibit 23	Top 10 Metros in Asia by Venture Capital Investment per Capita	29
Exhibit 24	Venture Capital Investment in Asia as a Share of Metro Economic Output	30
Exhibit 25	Top 10 Metros in Asia by Venture Capital Investment as a Share of Metro Economic Output	30

Executive Summary

Once the province of American tech hubs like California's Silicon Valley, venture capital has gone global. This report uses detailed data from [Thomson Reuters](#) to chart the world's leading centers for venture capital investment.

Its main findings are as follows.

- Venture capital investment across the world totalled \$42 billion in 2012, spread across more than 150 cities and metro regions globally.
- The top 10 metros account for more than half (52 percent), the top 20 metros account for almost two-thirds, and the top 50 more than 90 percent of total global venture investment.
- The United States accounts for nearly 70 percent (68.6 percent) of total global venture capital, followed by Asia (14.4 percent) and Europe (13.5 percent).
- The San Francisco Bay Area, which spans Silicon Valley and San Francisco proper, remains the world's leading center for venture capital investment attracting nearly \$11 billion dollars, more than

a quarter of all global venture investment. Boston is second with \$3.1 billion, followed by New York with \$2.1 billion and Los Angeles with \$1.5 billion. Outside of the United States, London ranks seventh with \$842 million, Beijing ninth with \$758 million, Toronto 12th with \$628 million, Shanghai 14th with \$510 million, Mumbai 15th with \$497 million, Paris 16th with \$449 million, and Bangalore 17th with \$419 million.

- Just two broad regions — the San Francisco Bay Area and the Boston-New York-Washington Corridor — account for more than 40 percent of global venture investment.
- Global venture investment is highly uneven and spiky — it is concentrated in a small number of large cities and metros around the world.

Introduction

Once the near exclusive province of American tech hubs like California's Silicon Valley, venture capital has gone global. A number of studies over the past several years attempted to trace the world's leading centers for startups, high-tech industry clusters, and venture capital investment.¹ While these studies provide useful information and context to understand the globalization of startups and venture capital, they tend to be based on data that is not necessarily comparable and systematic.

This report uses detailed data from [Thomson Reuters](#) to chart the world's leading centers for venture capital investment. These data provide granular information on venture capital investment globally as well as the geographic location of venture investments. We aggregated these venture investments by zip or postal code and metropolitan area. This generated data on roughly 2000 venture investments across 170 metros. We then analyzed these data by population and economic output to control for metro size. (See the appendix for more detail on our methodology).

Venture capital investment across the world surged to \$42 billion in 2012, spanning over 150 cities or metro regions globally. The top 10 metros account for approximately 52 percent, the top 20 metros account for almost two-thirds, and the top 50 more than 90 percent of total global venture investment.² The United States accounts for nearly 70 percent (68.6 percent) of total global venture capital, followed by Asia (14.4 percent) and Europe (13.5 percent).³

This report is the third instalment of a larger and ongoing [Martin Prosperity Institute](#) research project on the changing geography of venture investment and the rise of the startup city.⁴

The rest of the report is organized as follows. The first part charts the leading metros for global venture capital investment overall and then as conditioned by population and economic output. The second part looks at the geography of venture capital investment in North America, Europe, and Asia respectively. The conclusion summarizes our key findings.

Mapping the World's Leading Venture Capital Centers

We begin by mapping venture capital investment across metro areas around the world (*Exhibit 1*).

The largest dots are located in North America (United States and Canada), Europe, particularly in the west, and parts of Asia, predominantly China and India. Almost all venture investment occurs in the developed Northern Hemisphere. There is very little investment in the Global South.

Mapping Venture Capital Investment per Capita

Exhibit 2 ranks the top twenty metros in the world in terms of the total dollar amount of venture capital investment, as well as their share of global venture investment.

The United States is the world's dominant center, home to the top six metros and 12 of the top twenty. Taken together, San Francisco (\$6.5 billion, 15.4 percent), San Jose (\$4.2

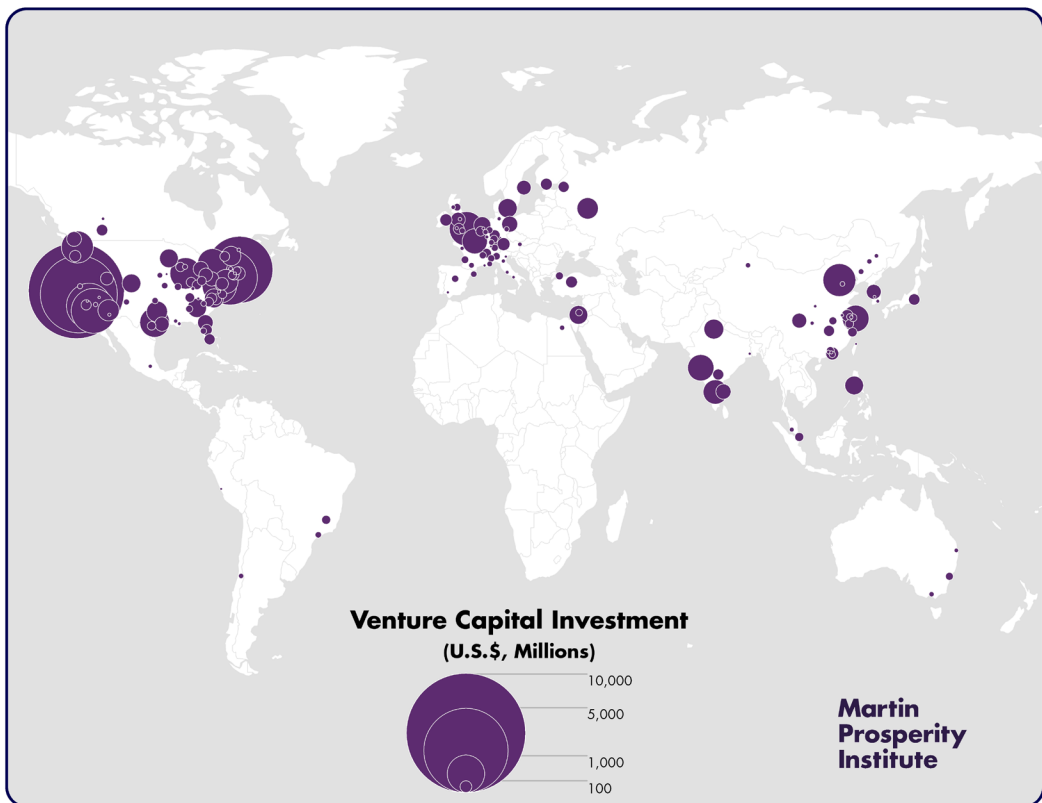


Exhibit 1: Global Venture Capital Investment

billion, 9.9 percent), Boston (\$3.1 billion, 7.5 percent), New York (\$2.1 billion, 5.0 percent), Los Angeles (\$1.5 billion, 3.4 percent), and San Diego (\$1.4 billion, 3.3 percent) account for 44.5 percent of total global venture capital investment. Just two broad regions—the San Francisco Bay Area and the Boston-New York-Washington Corridor—account for more than 40 percent of global venture investment.

But, there are considerable centers of venture capital investment outside the United States.

London (\$842 million, 2.0 percent) ranks seventh, Toronto (\$628 million, 1.5 percent) is 12th, and Paris (\$449 million, 1.1 percent) is 16th.

China and India are each represented by a pair of metros. Beijing (\$758 million, 1.8 percent) and Shanghai (\$510 million, 1.2 percent) are ranked ninth and fourteenth while Mumbai (\$497 million, 1.2 percent) and Bangalore (\$419 million, 1.0 percent) are 15th and 17th.

Rank	Metro	Venture Capital Investment*	Share of Global Venture Capital Investment
1	San Francisco	\$6,471	15.4%
2	San Jose	\$4,175	9.9%
3	Boston	\$3,144	7.5%
4	New York	\$2,106	5.0%
5	Los Angeles	\$1,450	3.4%
6	San Diego	\$1,410	3.3%
7	London	\$842	2.0%
8	Washington, D.C.	\$835	2.0%
9	Beijing	\$758	1.8%
10	Seattle	\$727	1.7%
11	Chicago	\$688	1.6%
12	Toronto	\$628	1.5%
13	Austin	\$626	1.5%
14	Shanghai	\$510	1.2%
15	Mumbai	\$497	1.2%
16	Paris	\$449	1.1%
17	Bangalore	\$419	1.0%
18	Philadelphia	\$413	1.0%
19	Phoenix	\$325	0.8%
20	Moscow	\$318	0.8%
Top 20 Metros		\$26,790	63.6%
Total		\$42,121	100.0%

*U.S. million dollars

Exhibit 2: Top 20 Global Metros by Venture Capital Investment

Venture capital investment is largely concentrated in a small number of metros across the world with 63.6 percent of investment located in the top 20 metros and 90.1 percent in the top 50.

Larger metros, like New York, London, and Beijing, have an advantage based on their sheer size. To control for this, we also examined venture capital investment on a per capita basis. *Exhibit 3* charts venture capital investment per capita in leading global cities. Again, the largest dots are in North America in on the East and West Coasts of the United States. There is a sizeable concentration of dots in Europe and a smattering in Asia.

Exhibit 4 lists the top 20 metros for venture capital investment per capita. Even on a per capita basis, the Bay Area continues to dominate. San Jose (\$2,146) and San Francisco (\$1,415) once again top the list with more than double Boston who follows in third place (\$665). But now, Durham, in the North Carolina Research Triangle, moves up to fourth place (\$475), followed by San Diego (\$434) in fifth. Tech hubs like Austin (sixth, \$323), Seattle (seventh, \$198), and Denver (17th, \$90) also make the list, as do superstar cities like Los Angeles (10th, \$110), New York (11th, \$105), and Toronto (12th, \$104). But now smaller metros across the United States move up the list as well: Jacksonville (\$120) is ninth, Madison,

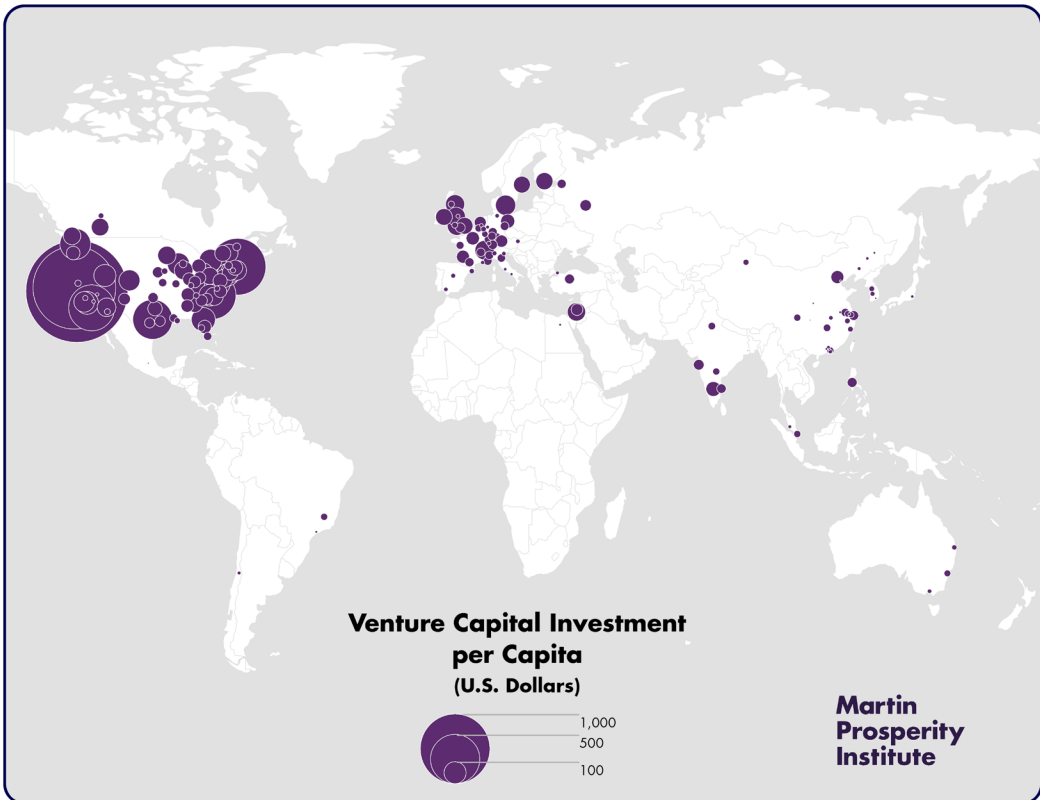


Exhibit 3: Venture Capital Investment per Capita by Metro

Wisconsin (\$100) is 14th, Greensboro, North Carolina (\$97) is 15th, and New Haven, Connecticut (\$93) is 16th.

Nineteen of the top twenty metros for venture capital investment per capita are located in the United States. Toronto, Canada in 12th (\$104) is the lone exception.

A number of metros that rank highly in terms of total venture capital investment fall much further down based on venture investment on a per capita basis. London, which ranked 7th on overall venture investment, now drops to 39th. Beijing, which ranked ninth in overall venture capital investment, drops to 55th. Mumbai,

ranked 15th overall, falls to 70th when accounting for population. Other notable metros that fall out of the top 20 when accounting for population are Paris (ranked 53rd in per capita venture capital investment), Chicago (26th), Bangalore (43rd), and Shanghai (74th).

Mapping Venture Capital Investment as a Share of Economic Output

We now chart venture capital investment as a share of economic output (based on gross domestic output or GDP).

Exhibit 5 charts venture capital investment as a share of a metro's total economic output or gross domestic product. The largest dots

Rank	Metro	Venture Capital Investment per Capita
1	San Jose	\$2,146
2	San Francisco	\$1,415
3	Boston	\$665
4	Durham, North Carolina	\$475
5	San Diego	\$434
6	Austin	\$323
7	Seattle	\$198
8	Washington, D.C.	\$138
9	Jacksonville	\$120
10	Los Angeles	\$110
11	New York	\$105
12	Toronto	\$104
13	Salt Lake City	\$102
14	Madison, Wisconsin	\$100
15	Greensboro, North Carolina	\$97
16	New Haven, Connecticut	\$93
17	Denver	\$90
18	Oxnard, California	\$89
19	Providence, Rhode Island	\$80
20	Phoenix	\$73

Exhibit 4: Top 20 Metros by Venture Capital Investment per Capita

remain in North America, especially on the East and West Coasts of the United States. But now larger dots appear India, as well as Europe.

Exhibit 6 supplements this, showing the top 20 global metros based on venture capital as a share of economic output. Once again, San Jose and San Francisco top the list. Now, Bangalore takes third place, Boston is fourth, and Durham, North Carolina fifth. San Diego and Austin are sixth and seventh. A pair of Indian metros — Mumbai and Chennai — take the eighth and ninth spots. Seattle rounds out the top ten.

American metros make up more than half (11) of the top twenty. Two Canadian cities — Toronto and Montréal — also make the list.

Three European cities rank among the top 20: Liverpool, Copenhagen-Malmö, and Bristol.

Three Indian metros make the top twenty as well: Mumbai, Chennai, and Hyderabad. However, none of China's cities appear on this list.

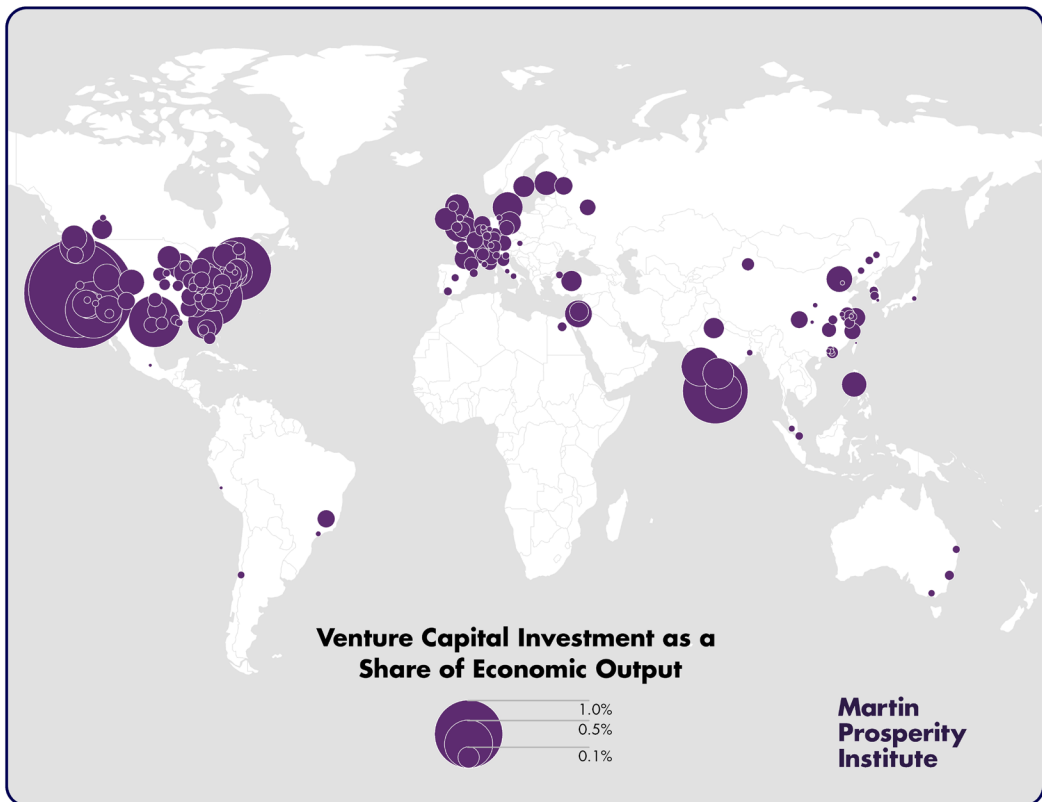


Exhibit 5: Venture Capital Investment as a Share of Metro Economic Output

Rank	Metro	Venture capital investment as share of metro economic output*
1	San Jose	2.60%
2	San Francisco	1.95%
3	Bangalore	0.92%
4	Boston	0.87%
5	Durham	0.70%
6	San Diego	0.70%
7	Austin	0.58%
8	Mumbai	0.33%
9	Chennai	0.28%
10	Seattle	0.27%
11	Jacksonville	0.27%
12	Toronto	0.23%
13	Liverpool	0.23%
14	Hyderabad	0.21%
15	Copenhagen-Malmö	0.20%
16	Washington, D.C.	0.19%
17	Greensboro, North Carolina	0.18%
18	Bristol, UK	0.18%
19	Montréal	0.17%
20	Los Angeles	0.17%

*Economic output as measured by gross domestic product

Exhibit 6: Top 20 Metros by Venture Capital Investment as a Share of Economic Output

Venture Capital Centers Compared to Leading Global Cities

Venture capital, as we have seen, is spiky, concentrated in a small number of metros worldwide. But how do these metros match up with the world's dominant global cities?

To get at this, *Exhibit 7* compares the top 20 venture capital centers to world's most economically powerful cities.⁵

While there is some overlap, the lists are far from identical.

New York, the world's most economically powerful city, is fourth for venture capital investment. Conversely, greater San Francisco, which is far and away the world's leading venture capital center, ranks 23rd on the list of leading global cities.

There are a number of leading global cities that also rank highly as venture capital hubs. London, the world's second most powerful global city, ranks seventh in venture capital. Paris, the fifth leading global city, is 16th in venture capital. Los Angeles, the seventh ranked global city,

is fifth. Chicago, 12th on the global city rankings, is 11th. Boston, Beijing, and Shanghai, all tied for the 18th leading global city, are third, ninth and 14th on venture capital respectively. Washington, D.C., the 23rd ranked global city, is eighth in venture capital.

That said other leading global cities rank much further down the list of venture capital centers. Tokyo, the third leading global city, ranks just ranks 54th in venture investment. Hong Kong, the fourth leading global city, ranks 107th; Singapore, the sixth ranking global city, is 79th; Vienna, the ninth ranked global city, is 128th; and Zurich, ranked 13th in terms of global cities, is 97th.

Ultimately, twelve of the world's leading cities rank among the top 25 venture capital centers. Fifteen of the top 25 global cities rank among the world's top 60 venture capital centres.

The world's leading cities are spiky and so is the venture capital industry. But, the two are not one in the same.

Metro	Global City Rank	Venture Capital Investment Rank
New York	1	4
London	2	7
Tokyo	3	54
Hong Kong	4	107
Paris	5	16
Singapore	6	79
Los Angeles	7	5
Seoul	8	37
Vienna	9	128
Stockholm	10 (tie)	40
Toronto	10 (tie)	12
Chicago	12	11
Zurich	13	97
Sydney	14 (tie)	85
Helsinki	14 (tie)	52
Dublin	16 (tie)	50
Osaka-Kobe	16 (tie)	N/A
Boston	18 (tie)	3
Oslo	18 (tie)	N/A
Beijing	18 (tie)	9
Shanghai	18 (tie)	14
Geneva	22	71
Washington, D.C.	23 (tie)	8
San Francisco	23 (tie)	1
Moscow	23 (tie)	20

Source: MPI rankings of the world's most economically powerful cities. Richard Florida, "Sorry, London: New York Is the World's Most Economically Powerful City," *CityLab*, March 3, 2015.

Exhibit 7: Comparing Global Cities and Venture Capital Investment

Venture Capital Investment by Geographic Region

We now take a closer look at venture capital investment across the world's three leading geographic regions: North America, Europe, and Asia. We exclude South America and Africa due to the limited amount of venture capital investment for them.

Venture Capital Investment in North America

North America, as we have seen, dominates the venture capital industry. *Exhibit 8* charts ven-

ture capital across the continent. The largest dots are on the East and West Coasts, but there is a smattering of activity in the Pacific Northwest, Florida, Texas, Colorado, and parts of the South and the Midwest. There is no investment in Mexico.

The Bay Area tops the list as North America's leading venture capital hub (*Exhibit 9*). San Francisco accounts for a fifth (\$6.5 billion, 21.8 percent) of all venture capital investment

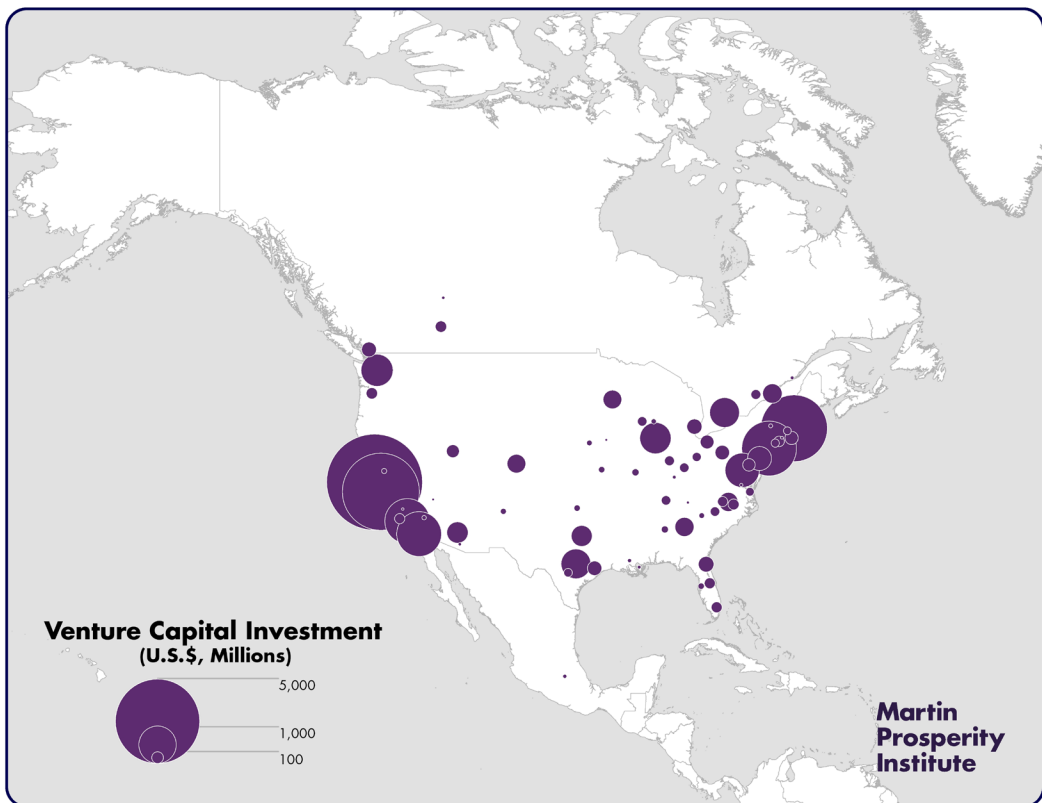


Exhibit 8: Venture Capital Investment in North America

followed by nearby San Jose (\$4.2 billion, 14.0 percent). Together they account for \$10.7 billion and 35.8 percent of venture investment across the continent. Boston is third (\$3.1 billion, 10.6 percent), New York fourth (\$2.1 billion, 7.1 percent), and Los Angeles fifth (\$1.5 billion, 4.9 percent). San Diego (1.4 billion, 4.7 percent), Washington, D.C. (\$834 million, 2.8 percent), Seattle (\$727 million, 2.5 per-

cent), and Chicago (\$688 million, 2.3 percent) are next. Toronto (\$628 million, 2.1 percent) rounds out the top ten.

Two Texas metros are found in the bottom half of the top 20. Austin (\$626 million, 2.1 percent) is eleventh and Dallas (\$308 million, 1.0 percent) is 14th. Philadelphia (\$413 million, 1.4 percent) is 12th and Phoenix (\$325 million, 1.1

Rank	Metro	Venture Capital Investment*	Share of North American Venture Capital Investment	Share of Global Venture Capital Investment
1	San Francisco	\$6,471	21.78%	15.36%
2	San Jose	\$4,175	14.05%	9.91%
3	Boston	\$3,144	10.58%	7.46%
4	New York	\$2,106	7.09%	5.00%
5	Los Angeles	\$1,450	4.88%	3.44%
6	San Diego	\$1,410	4.74%	3.35%
7	Washington, D.C.	\$834	2.81%	1.98%
8	Seattle	\$727	2.45%	1.73%
9	Chicago	\$688	2.32%	1.63%
10	Toronto	\$628	2.11%	1.49%
11	Austin	\$626	2.11%	1.49%
12	Philadelphia	\$413	1.39%	0.98%
13	Phoenix	\$325	1.09%	0.77%
14	Dallas	\$308	1.04%	0.73%
15	Montréal	\$267	0.90%	0.63%
16	Atlanta	\$260	0.87%	0.62%
17	Durham	\$258	0.87%	0.61%
18	Denver	\$246	0.83%	0.58%
19	Minneapolis	\$245	0.82%	0.58%
20	Jacksonville	\$169	0.57%	0.40%
Total – Top 20		\$24,750	83.30%	58.80%
Total – North America		\$29,715	—	70.55%

*U.S. million dollars

Exhibit 9: Top 20 Metros in North America by Venture Capital Investment

percent) is 13th. Montréal (\$267 million, 0.9 percent) is 15th. The rest of top 20 is rounded out by Atlanta (\$260 million, 0.9 percent), Durham (\$258 million, 0.9 percent), Denver (\$246 million, 0.8 percent), Minneapolis (\$245 million, 0.8 percent), and Jacksonville (\$169 million, 0.6 percent).

These top twenty metros account for 83.3 percent of all North American venture capital and 58.8 percent of worldwide venture investment.

Exhibit 10 charts venture capital in North America when controlling for population. Again, we see the largest dots on the coasts, but also considerable concentrations in Texas, parts of Florida, and the Pacific Northwest as well.

San Jose (\$2,146) and San Francisco (\$1,415) take the top two spots (*Exhibit 11*). Boston (\$665) is third. Durham (\$475), in the North Carolina Research Triangle, is fourth, followed by established tech hubs San Diego (\$434), Austin (\$323), Seattle (\$198), and Washington, D.C. (\$138). Jacksonville (\$120) and Los Angeles (\$110) round out the top ten.

Exhibit 12 charts venture capital investment as a share of economic output. The largest dots are on the coasts in cities like San Jose, San Francisco, and Boston. However, there are also spikes in Texas, Florida, the Pacific Northwest, parts of the South, and in Toronto.

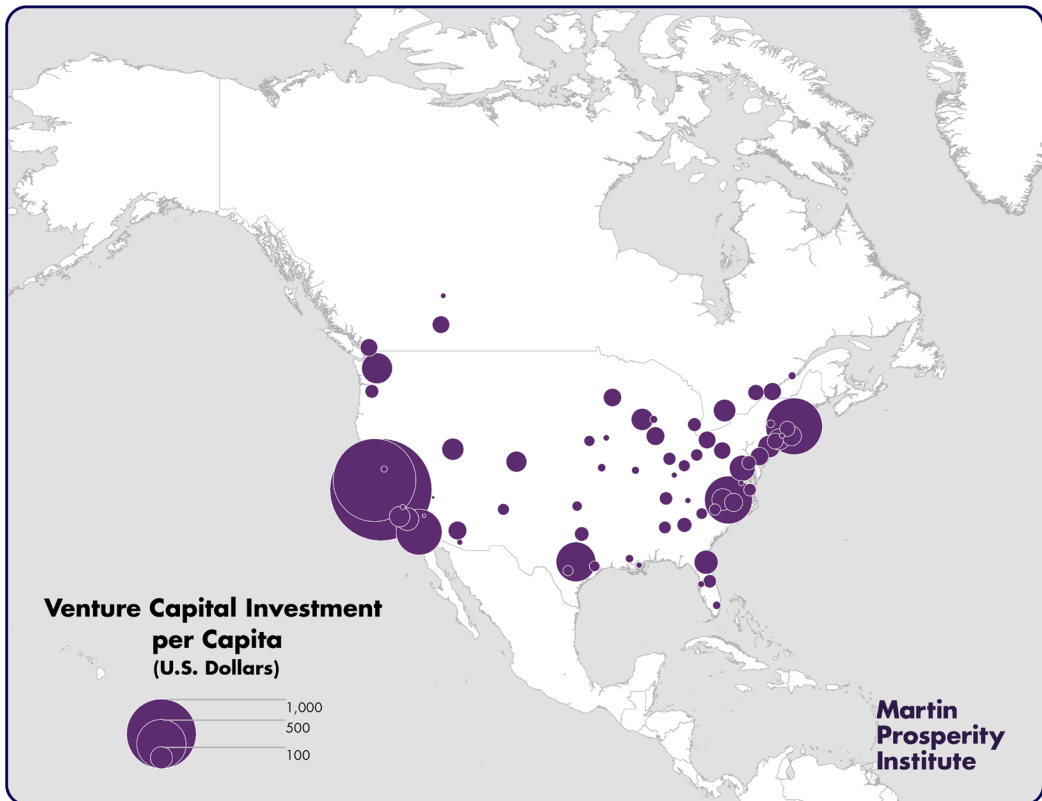


Exhibit 10: Venture Capital Investment in North America per Capita

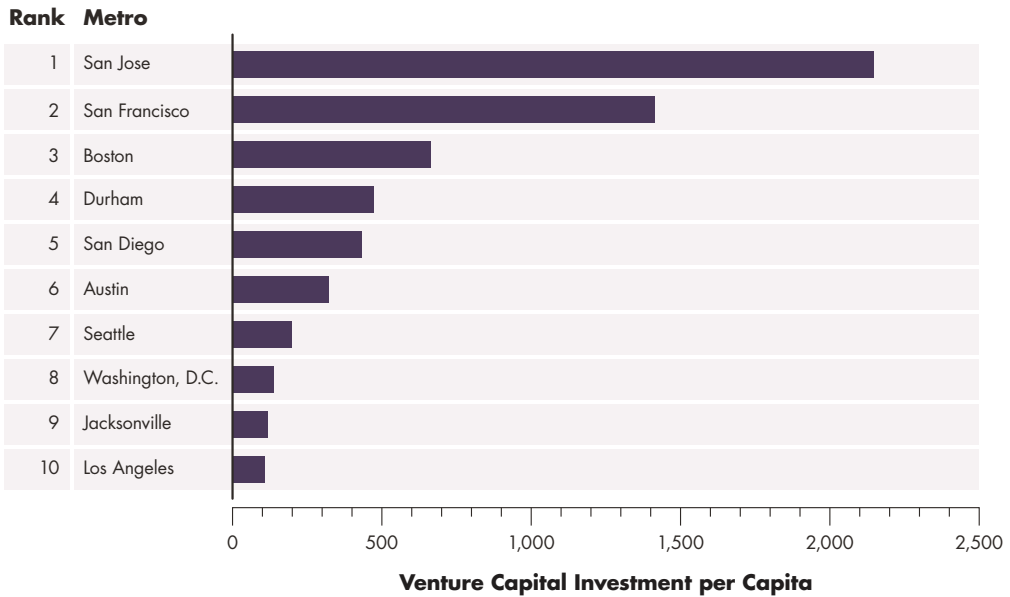
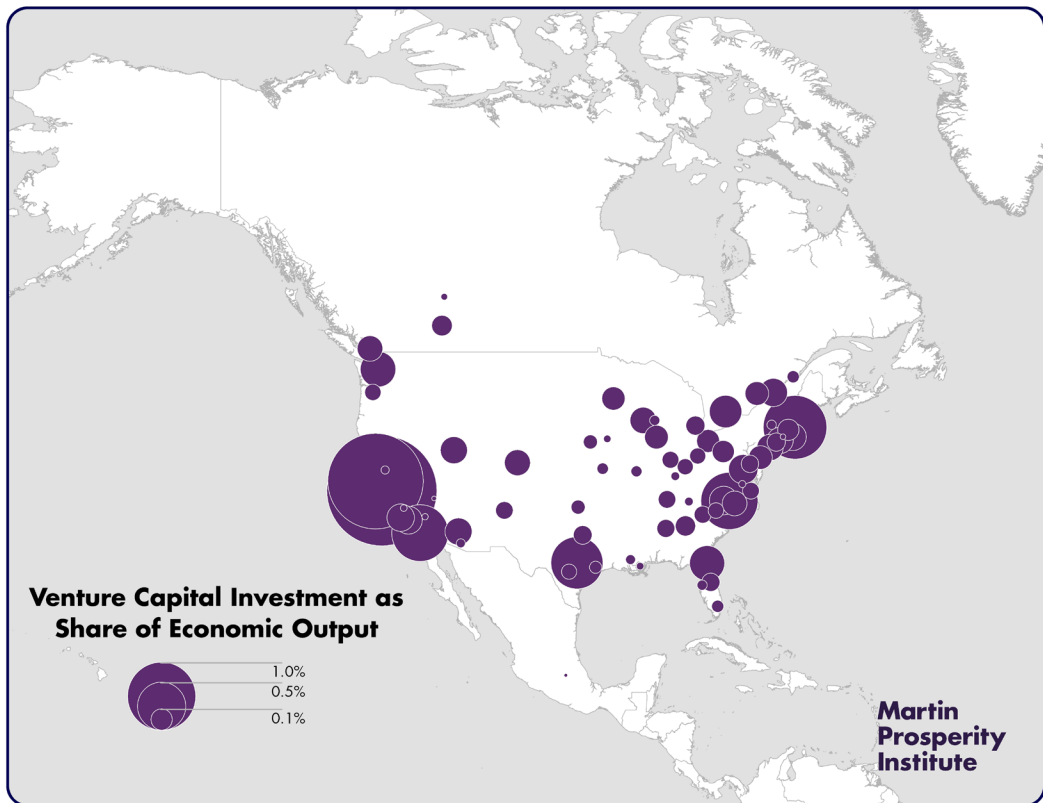
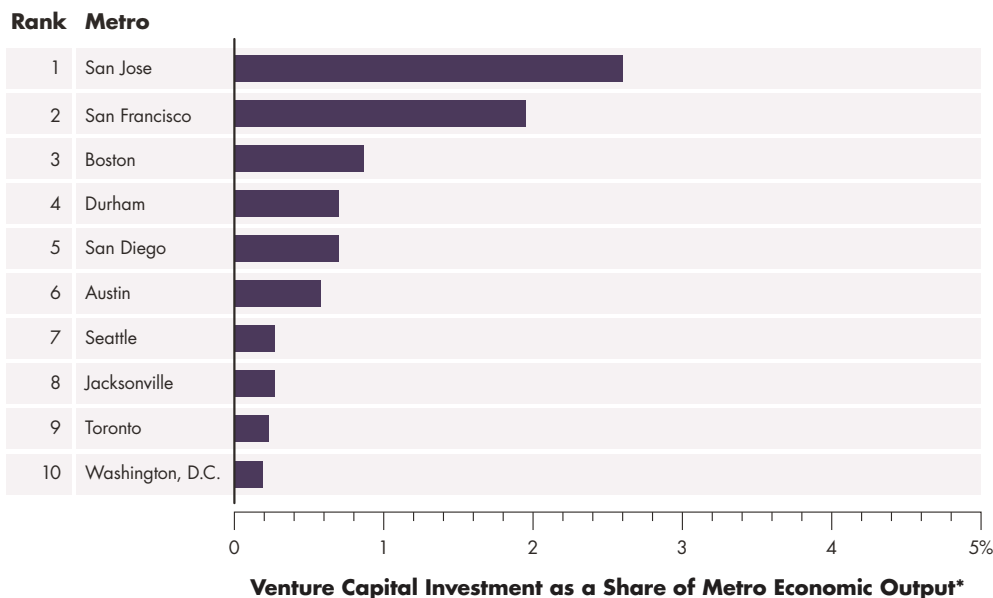


Exhibit 11: Top 10 Metros in North America by Venture Capital Investment per Capita



*Economic output as measure by gross domestic product

Exhibit 12: Venture Capital Investment in North America as a Share of Metro Economic Output



*Economic output as measure by gross domestic product

Exhibit 13: Top 10 Metros in North America by Venture Capital Investment as a Share of Metro Economic Output

Exhibit 13 shows the top 20 North American metros on venture capital investment as a share of economic output. With the exception of Jacksonville, these are all established tech hubs. San Jose and San Francisco again take the top two spots, followed by Boston, Durham, San Diego, Austin, and Seattle. Jacksonville, Toronto, and Washington, D.C. round out the top ten.

Venture Capital Investment in Europe

We now turn to venture capital investment in Europe. Europe, as we have seen, accounts for 13.5 percent of global venture capital investment.

Exhibit 14 charts venture capital investment across Europe. The largest dots are in London and Paris with smaller concentrations around Moscow, Copenhagen-Malmö, and Amsterdam-Rotterdam.

Exhibit 15 lists the top 20 European metros for venture capital investment. London is first with \$842 million or 14.8 percent of the continent's total, followed by Paris (\$449 million, 7.9 per-

cent), and Moscow (\$318 million, 5.6 percent). Together these three metro areas make up more than a quarter (28 percent) of total European venture capital. Copenhagen-Malmö (\$254 million, 4.5 percent) and Amsterdam-Rotterdam (\$205 million, 3.6 percent) round out the top five. Berlin (\$178 million, 3.1 percent) is sixth, followed by Stockholm (\$148 million, 2.6 percent), Liverpool (\$148 million, 2.6 percent), Stuttgart (\$125 million 2.2 percent), and Munich (\$120 million, 2.1 percent).

Dublin (\$103 million, 1.8 percent) is 11th, followed by Helsinki (\$99 million, 1.7 percent), Saint Petersburg (\$86 million, 1.5 percent), Bristol (\$84 million, 1.5 percent), and Frankfurt am Main (\$78 million, 1.4 percent) in 15th. Brussels (\$67 million, 1.2 percent), Geneva (\$66 million, 1.2 percent), Karlsruhe (\$46 million, 0.8 percent), in Southwest Germany, near the French border, Istanbul (\$44 million, 0.8 percent), and Edinburgh (\$42 million, 0.7 percent) round out the top 20. Moscow, Saint Petersburg, and Istanbul are the only metros outside of Western Europe to make the list.

The top 20 metros in the region account for 61.4 percent of all venture investment in Europe but only 8.3 percent of total global venture investment.

Exhibit 16 charts venture capital investment in Europe on a per capita basis. There are dots smattered across the region. Several metros in the United Kingdom have relatively larger dots, while several metros in France and Germany have smaller ones as well. A few dots appear in Scandinavian nations, while smaller dots are in Spain.

Copenhagen-Malmö tops the list followed by Geneva, Edinburg, Bristol, and Liverpool. Rounding out the top ten are Helsinki, Dublin, Berlin, Stockholm, London, and Berlin (*Exhibit 17*).

Exhibit 18 shows venture capital investment as a share of economic output. Again, the dots are widely scattered across the United Kingdom, Germany, and France.

Exhibit 19 lists Europe's top ten metros for venture capital investment as a share of economic output. Liverpool is first, followed by Copenhagen-Malmö, Bristol, Geneva, and Edinburg. Helsinki, Dublin, Berlin, Stockholm, and London round out the top ten.

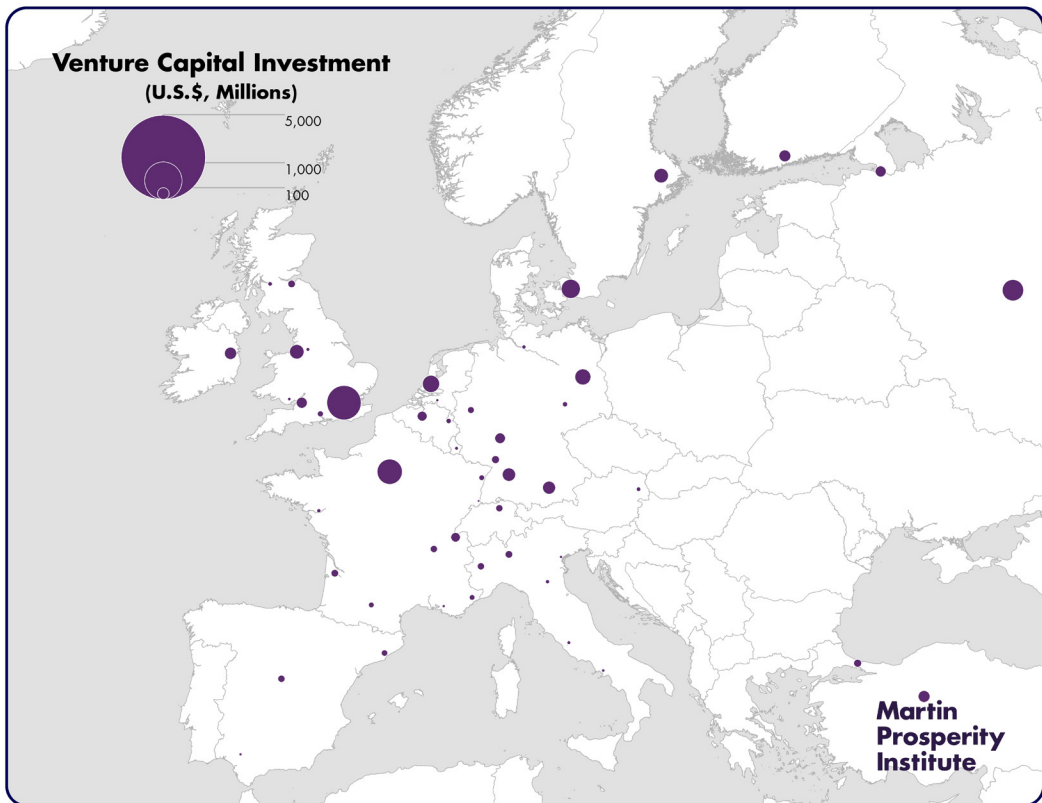


Exhibit 14: Venture Capital Investment in Europe

Rank	Metro	Venture Capital Investment*	Share of European Venture Capital Investment	Share of Global Venture Capital Investment
1	London	\$842	14.76%	2.00%
2	Paris	\$449	7.87%	1.07%
3	Moscow	\$318	5.58%	0.76%
4	Copenhagen-Malmö	\$254	4.46%	0.60%
5	Amsterdam-Rotterdam	\$205	3.60%	0.49%
6	Berlin	\$178	3.13%	0.42%
7	Stockholm	\$148	2.60%	0.35%
8	Liverpool	\$148	2.60%	0.35%
9	Stuttgart	\$125	2.19%	0.30%
10	Munich	\$120	2.11%	0.29%
11	Dublin	\$103	1.80%	0.24%
12	Helsinki	\$99	1.74%	0.24%
13	Saint Petersburg	\$86	1.51%	0.20%
14	Bristol	\$84	1.46%	0.20%
15	Frankfurt am Main	\$78	1.36%	0.18%
16	Brussels	\$67	1.18%	0.16%
17	Geneva	\$66	1.16%	0.16%
18	Karlsruhe	\$46	0.80%	0.11%
19	Istanbul	\$44	0.77%	0.10%
20	Edinburgh	\$42	0.74%	0.10%
Total – Top 20		\$3,503	61.4%	8.32%
Total – Europe		\$5,705	—	13.54%

*U.S. million dollars

Exhibit 15: Top 20 Metros in Europe by Venture Capital Investment

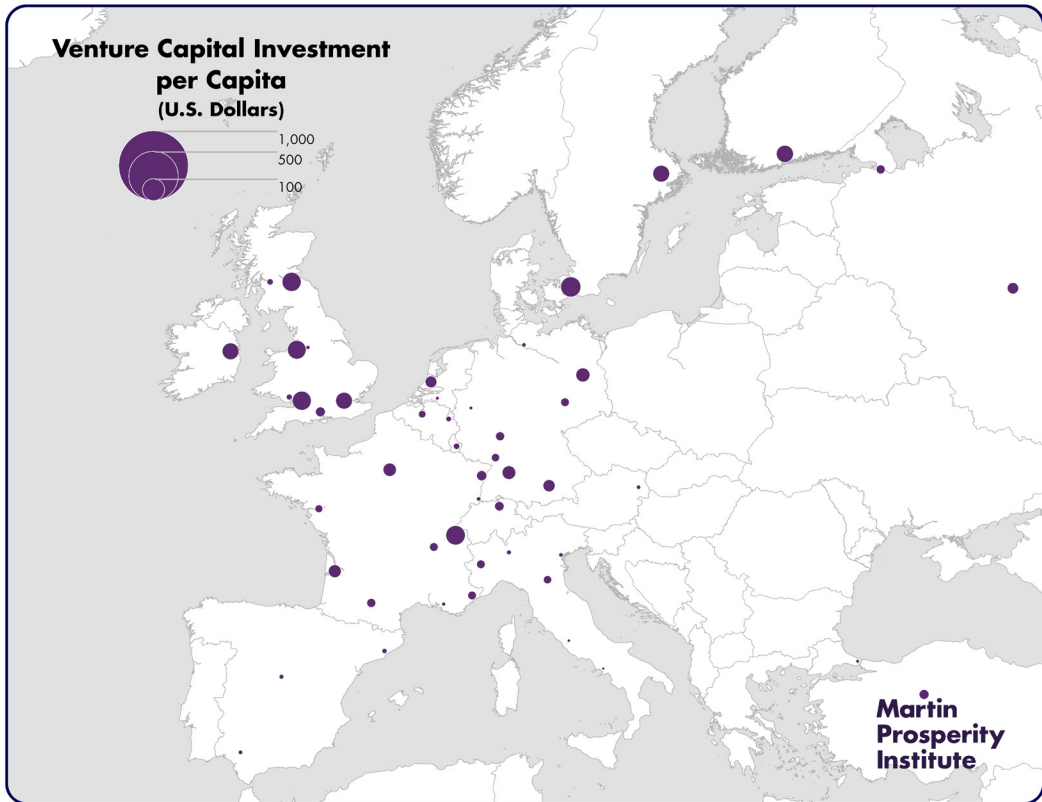


Exhibit 16: Venture Capital Investment in Europe per Capita

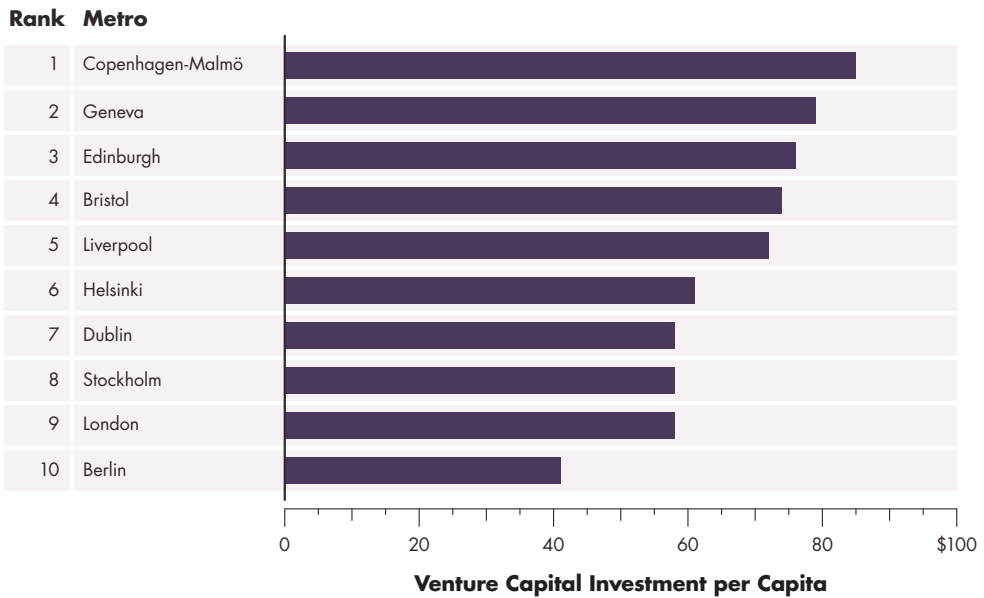
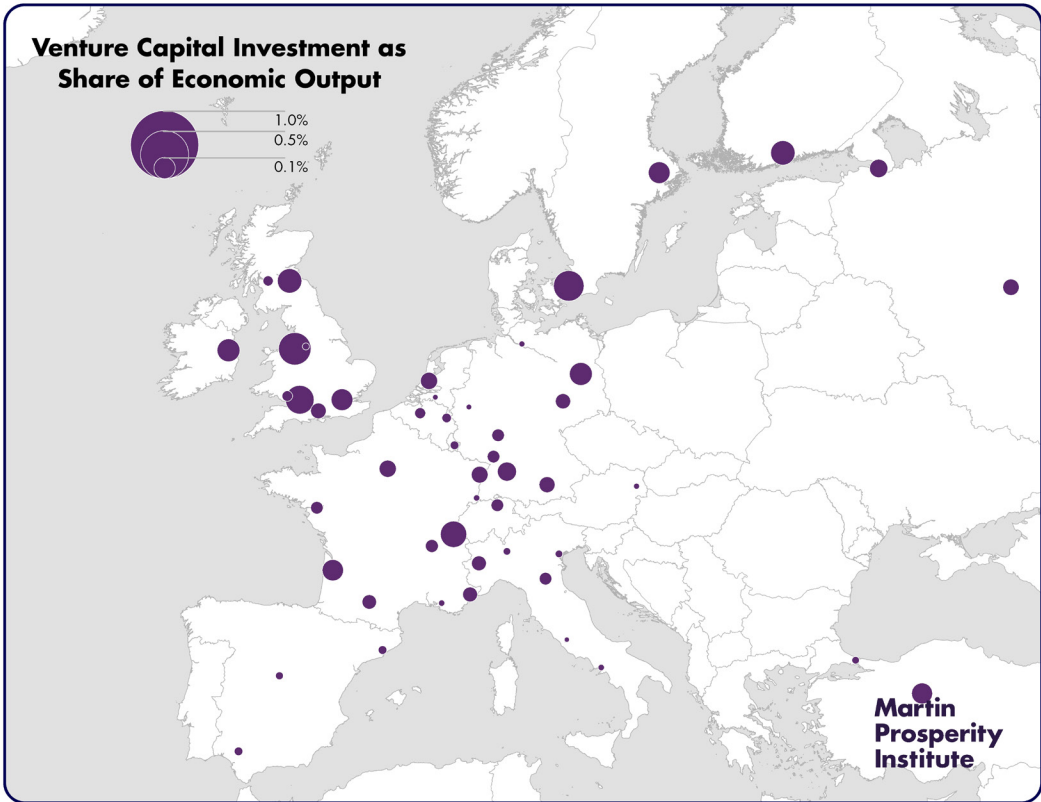
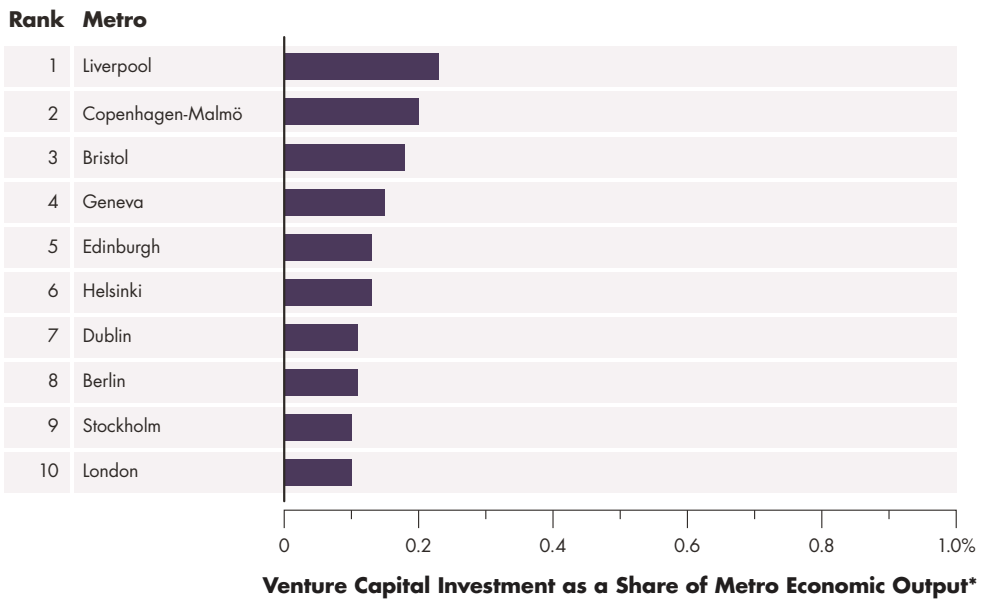


Exhibit 17: Top 10 Metros in Europe by Venture Capital Investment per Capita



*Economic output as measure by gross domestic product

Exhibit 18: Venture Capital Investment in Europe as a Share of Metro Economic Output*



*Economic output as measure by gross domestic product

Exhibit 19: Top 10 Metros in Europe by Venture Capital Investment as a Share of Metro Economic Output

Venture Capital Investment in Asia

We now turn to venture capital investment in Asia, which accounts for 14.4 percent of venture capital investment worldwide. *Exhibit 20* tracks Asia's largest centers for venture capital investment.

Venture investment in Asia is concentrated in China and India. The biggest dots in China are concentrated along its coastline. There are smaller dots in the Philippines, South Korea, and somewhat surprisingly, Japan. There are a few dots in the Middle East, in Israel and Egypt.

Exhibit 21 shows the top 20 centers for venture capital investment in Asia. Beijing tops the list with \$758 million or 12.5 percent of the region's total. It is followed by Shanghai (\$510 million, 8.4 percent) in second. Together

these two metros account for roughly a fifth all venture investment in Asia. Three Indian metros—Mumbai (\$497 million, 8.2 percent), Bangalore (\$419 million, 6.9 percent), and Delhi (\$277 million, 4.6 percent)—round out the top five. Manila is sixth with \$250 million (4.1 percent) in investment, followed closely by Tel Aviv (\$250 million, 4.1 percent). Chennai (\$165 million, 2.7 percent), on India's east coast, is eighth. Seoul-Incheon (156 million, 2.6 percent) is ninth and Chengdu (\$152 million, 2.5 percent), in Southwest China, is tenth. The remainder of the top 20 includes a number of metro areas across China, India, and Japan.

Overall, the top 20 metros in Asia account for 69.8 percent of all Asian venture capital, but just 10.1 percent of global venture capital investment.

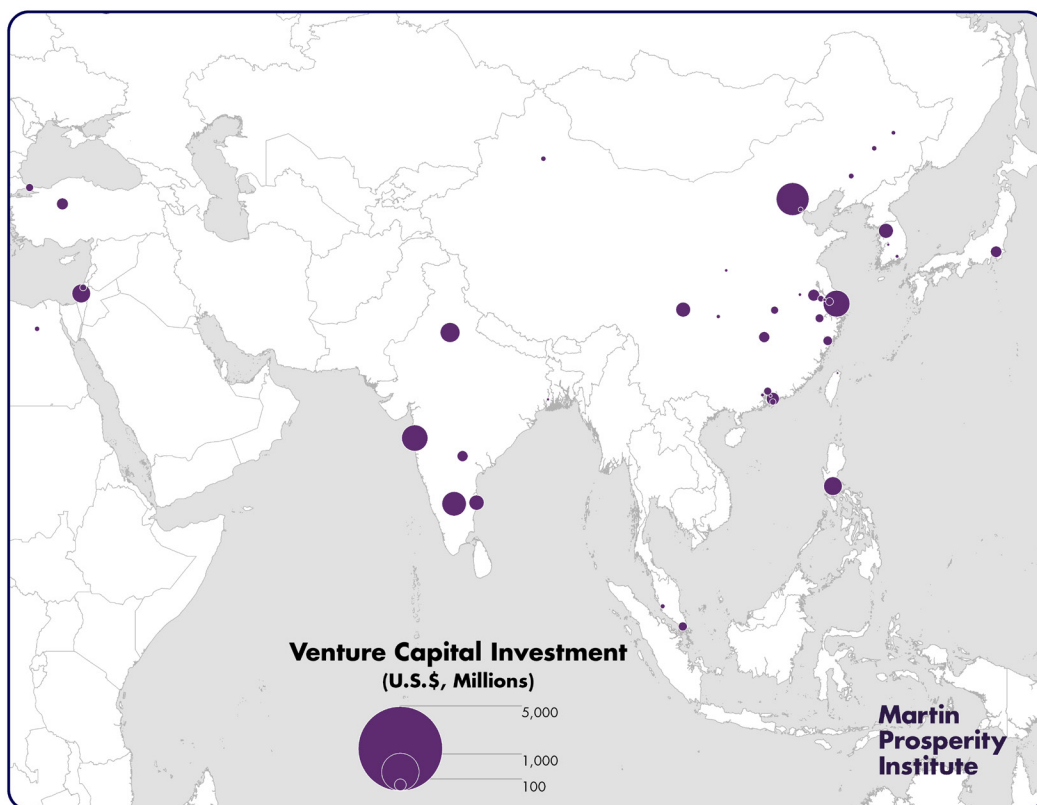


Exhibit 20: Venture Capital Investment in Asia

Rank	Metro	Total Venture Capital*	Share of Asian Venture Capital Investment	Share of Global Venture Capital Investment
1	Beijing	\$758	12.49%	1.80%
2	Shanghai	\$510	8.42%	1.21%
3	Mumbai	\$497	8.19%	1.18%
4	Bangalore	\$419	6.91%	0.99%
5	Delhi	\$277	4.57%	0.66%
6	Manila	\$250	4.13%	0.59%
7	Tel Aviv	\$250	4.12%	0.59%
8	Chennai	\$165	2.72%	0.39%
9	Seoul-Incheon	\$156	2.57%	0.37%
10	Chengdu	\$152	2.51%	0.36%
11	Shenzhen	\$117	1.93%	0.28%
12	Ankara	\$100	1.65%	0.24%
13	Nanjing	\$96	1.57%	0.23%
14	Tokyo	\$94	1.55%	0.22%
15	Changsha	\$88	1.45%	0.21%
16	Hyderabad	\$84	1.38%	0.20%
17	Wenzhou	\$62	1.02%	0.15%
18	Singapore	\$57	0.94%	0.14%
19	Hangzhou	\$55	0.91%	0.13%
20	Suzhou	\$46	0.76%	0.11%
Top 20 – Asia		\$4,234	69.81%	10.05%
Total – Asia		\$6,064	—	14.40%

*U.S. million dollars

Exhibit 21: Top 20 Metros in Asia by Venture Capital Investment

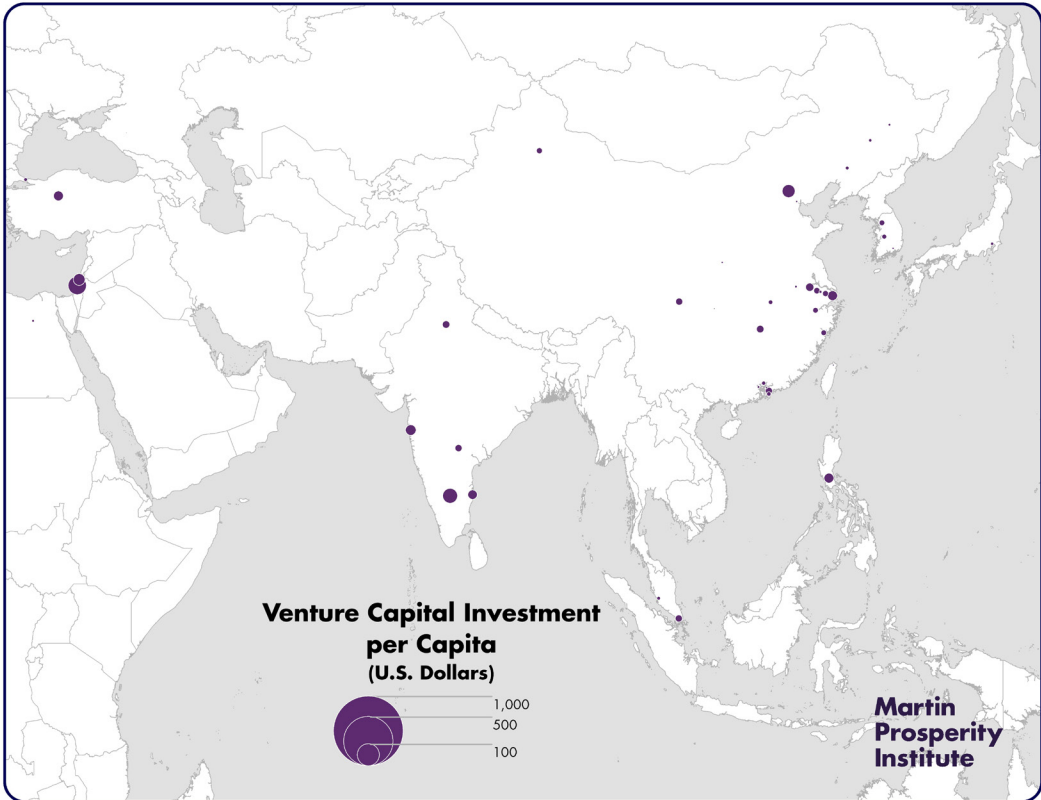


Exhibit 22: Venture Capital Investment in Asia per Capita

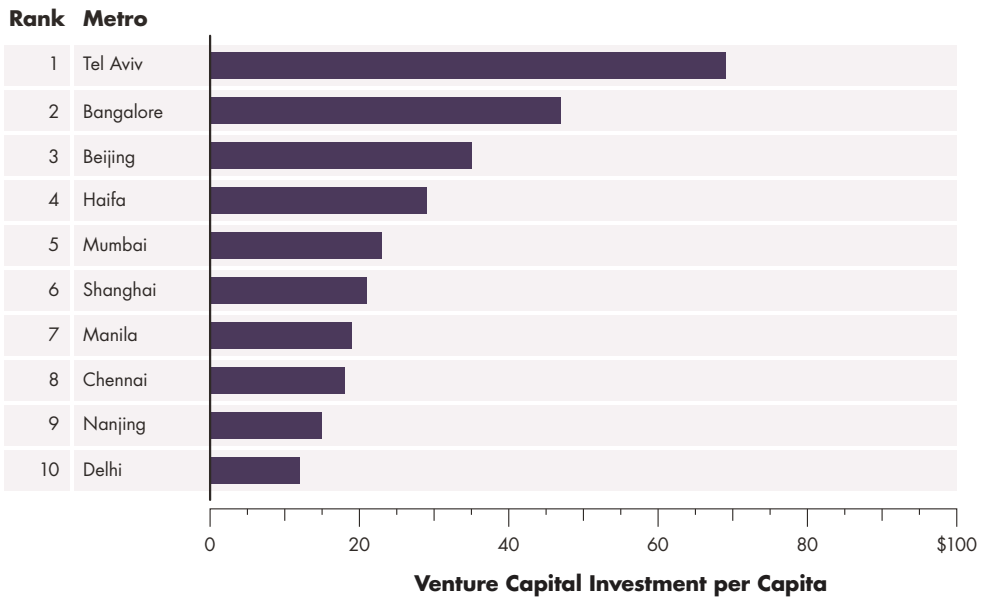
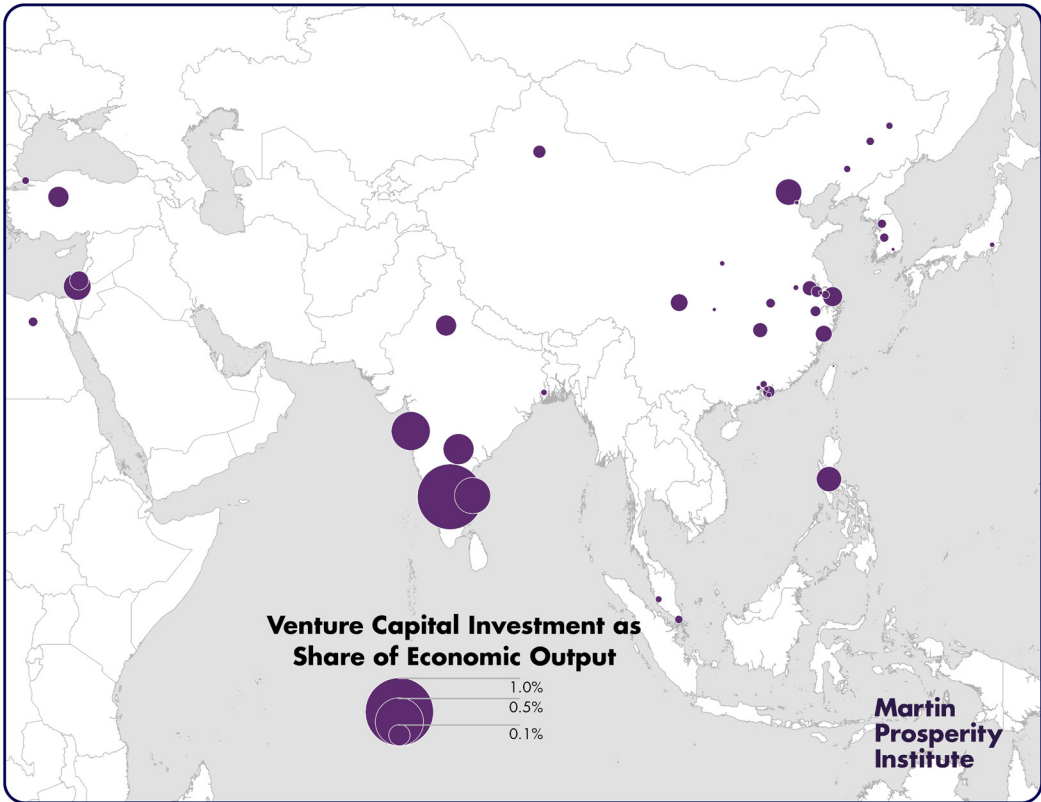
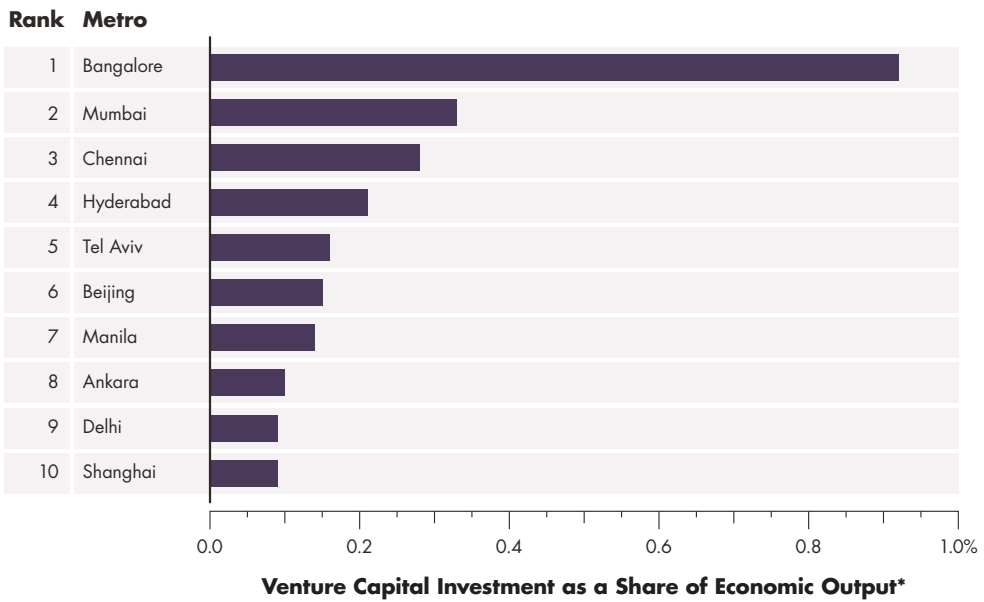


Exhibit 23: Top 10 Metros in Asia by Venture Capital Investment per Capita



*Economic output as measure by gross domestic product

Exhibit 24: Venture Capital Investment in Asia as a Share of Metro Economic Output*



*Economic output as measure by gross domestic product

Exhibit 25: Top 10 Metros in Asia by Venture Capital Investment as a Share of Metro Economic Output

Exhibit 22 charts the leading centers for venture capital investment in Asia on a per capita basis. *Exhibit 23* lists Asia's top ten metros for venture investment per capita. Tel Aviv is far out in front with \$69 per capita. Bangalore is second, followed by Beijing. Haifa, in northern Israel, is fourth and Mumbai is fifth. Shanghai, Manila, Chennai, Nanjing, and Delhi round out the top ten.

Exhibit 24 charts Asia's leading centers for venture capital investment as a share of metro economic output. *Exhibit 25* lists Asia's ten leading metros based on venture capital investment as a share of economic output. Indian metros take the top four spots: Bangalore, Mumbai, Chennai, and Hyderabad. Tel Aviv was fifth. Beijing is sixth followed by Manila, Ankara, Delhi, and Shanghai.

Conclusion

This report has examined the world's leading centers of venture capital investment. Its main findings are as follows.

Venture capital investment across the world amounted to \$42 billion in 2012, spread across more than 150 cities and metro regions globally.

That said, global venture capital investment is quite concentrated. The top 10 metros account for approximately 52 percent, the top 20 metros account for almost two-thirds, and the top 50 more than 90 percent of total global venture investment.

The United States accounts for nearly 70 percent (68.6 percent) of total global venture capital, followed by Asia (14.4 percent), and Europe (13.5 percent).

The San Francisco Bay Area, which spans Silicon Valley and San Francisco proper, remains the world's leading center for venture capital investment with nearly \$11 billion dollars, more than a quarter of all global venture investment. Boston is second with \$3.1 billion followed by New York with \$2.1 billion and Los Angeles with \$1.5 billion. Just two broad regions—the

San Francisco Bay Area and the Boston-New York-Washington Corridor—account for more than 40 percent of global venture investment.

Outside of the United States, London ranks seventh with \$842 million, Beijing ninth with \$758 million, Toronto 12th with \$628 million, Shanghai 14th with \$510 million, Mumbai 15th with \$497 million, Paris 16th with \$449 million, and Bangalore 17th with \$419 million.

While there is some overlap between the world's leading venture capital centers and its most powerful global cities, the two are not identical. New York, the world's most economically powerful city, is fourth for venture capital investment. Conversely, greater San Francisco, which is far and away the world's leading venture capital center, only ranks as the world's 23rd leading global city. Twelve of the world's leading cities rank among the top 25 venture capital centers. Fifteen of the top 25 global cities rank among the world's top 60 venture capital centers.

Ultimately, global venture investment is highly uneven and *spiky*—concentrated in a small number of large cities and metros around the world.

Data and Methodology

This report uses detailed data from [Thomson Reuters](#) to chart the world's leading centers for venture capital investment. These data, for the year 2012, provide granular information on venture capital investment globally and include the total dollar value of the investment, the name and industry of the recipient company, and the geographic location of venture investments. We set an upper-level cut-off \$200 million to eliminate investments that are too large to be considered classic venture capital and a lower level cut-off of \$5 million to eliminate investments that are too small. This generated venture capital investments for 2,215 companies.

We aggregated these venture investments by zip or postal code and assigned them to locations according to defined global metro boundaries based on global boundary shape files (provided by the Brookings Institution). Of the 2,215 companies we identified 125 or 5.6 percent that did not have an accompanying postal or zip code. These companies accounted for a combined investment of \$2.4 billion or 5.8 percent of all investment. In addition, we encountered some difficulty geocoding investments in Israel. The postal codes provided for Israel are based on 5 digits. However, in 2013 Israel switched to 7 digit postal codes. Due to this change, we

were unable to map venture investments in Israel by postal code. We were, however, able to assign them to their major metro. We assigned 70 of the 125 investment records that did not have postal or zip codes to a metropolitan area.

We ultimately ended up with data for 1,919 venture capital investments spanning 170 metro areas. This accounted for a total \$36.5 billion in venture capital investment. We then conditioned these data by population, and economic output to control for metro size. Population and economic output for metros are from the Brookings Institution report for 2014.⁶

References

- 1 See, Richard Florida, "The World's Leading Cities for Start-Ups," *CityLab*, November 21, 2012, <http://www.citylab.com/work/2012/11/worlds-leading-cities-startups/3937/>; Florida, "The New Global Start-Up Cities," *CityLab*, June 4, 2013, <http://www.citylab.com/work/2013/06/new-global-start-cities/5144/>; Florida, "The World's Leading Startup Cities," *CityLab*, <http://www.citylab.com/tech/2015/07/the-worlds-leading-startup-cities/399623/>; Startup Genome, *Startup Ecosystem Report, 2012 Part One*, 2012, <https://s3.amazonaws.com/startupcompass-public/StartupEcosystemReportPart1v1.2.pdf>.
- 2 See, Richard Florida, Tim Gulden, and Charlotta Mellander, "The Rise of the Mega-Region," *Cambridge Journal of Regions, Economy and Society*, 1, 3, 2008, pp. 459–76; Also, Florida, "Megaregions: The Importance of Place," *Harvard Business Review*, March 2008, <https://hbr.org/2008/03/megaregions-the-importance-of-place>; Florida, "The Rise of the Mega-Region," *The Wall Street Journal*, April 12, 2008, <http://www.wsj.com/articles/SB120796112300309601>; Florida, *The Mega-Regions of North America*, Martin Prosperity Institute, 2014, <http://martinprosperity.org/content/the-mega-regions-of-north-america/>; Florida, "The Dozen Regional Powerhouses Driving the U.S. Economy," *CityLab*, March 12, 2014, <http://www.citylab.com/work/2014/03/dozen-regional-powerhouses-driving-us-economy/8575/>.
- 3 See, Richard Florida, "The World Is Spiky," *The Atlantic*, October 2005, <http://www.theatlantic.com/past/docs/images/issues/200510/world-is-spiky.pdf>.
- 4 See, Richard Florida, *Startup City: The Urban Shift in Venture Capital and High Technology*, Toronto, ON: Martin Prosperity Institute, 2014, http://martinprosperity.org/media/Startup%20City_14-03-14.pdf; Florida and Karen King, *Startup City Canada: The Geography of Venture Capital and Startup Activity in Canada*, Toronto, ON: Martin Prosperity Institute, 2015, <http://martinprosperity.org/content/startup-city-canada-the-geography-of-venture-capital-and-startup-activity-in-canada>.
- 5 Based on our Martin Prosperity rankings of the world's most economically powerful cities. See, Richard Florida, "Sorry, London: New York Is the World's Most Economically Powerful City," *CityLab*, March 3, 2015, <http://www.citylab.com/work/2015/03/sorry-london-new-york-is-the-worlds-most-economically-powerful-city/386315/>.
- 6 Data on metro gross domestic product is from the Brookings Institution. See, Joseph Parilla, Jesus Leal Trujillo, and Alan Berube, "Global Metro Monitor 2014: An Uncertain Recovery," *The Brookings Institution*, 2014, http://www.brookings.edu/~media/Research/Files/Reports/2015/01/22-global-metro-monitor/bmpp_GMM_final.pdf?la=en p. 5.

About the Authors

Richard Florida

Richard is Director of Cities at the Martin Prosperity Institute at the University of Toronto's Rotman School of Management. He is also Global Research Professor at New York University, and the founder of the Creative Class Group. He is a senior editor for *The Atlantic*, where he co-founded and serves as Editor-at-Large for *CityLab*.

Karen M. King

Karen is senior researcher and research project manager of Cities. Karen's quantitative research examines the challenges and divides created by urban prosperity with a particular focus on migration and immigration in the United States and Canada. Karen holds a PhD in Geography from McMaster University and a Masters of Economics from the University of Toronto.

The authors thank

Isabel Ritchie for research assistance and maps;

Nick Lombardo for research assistance;

Michelle Hopgood for graphics;

& Ian Gormely for his editing.

Martin Prosperity Institute
Rotman School of Management
University of Toronto
105 St. George St., Ste. 9000
Toronto, ON M5S 3E6

w martinprosperity.org
e assistant@martinprosperity.org
t 416.946.7300
f 416.946.7606

© January 2016
ISBN 978-1-928162-04-9