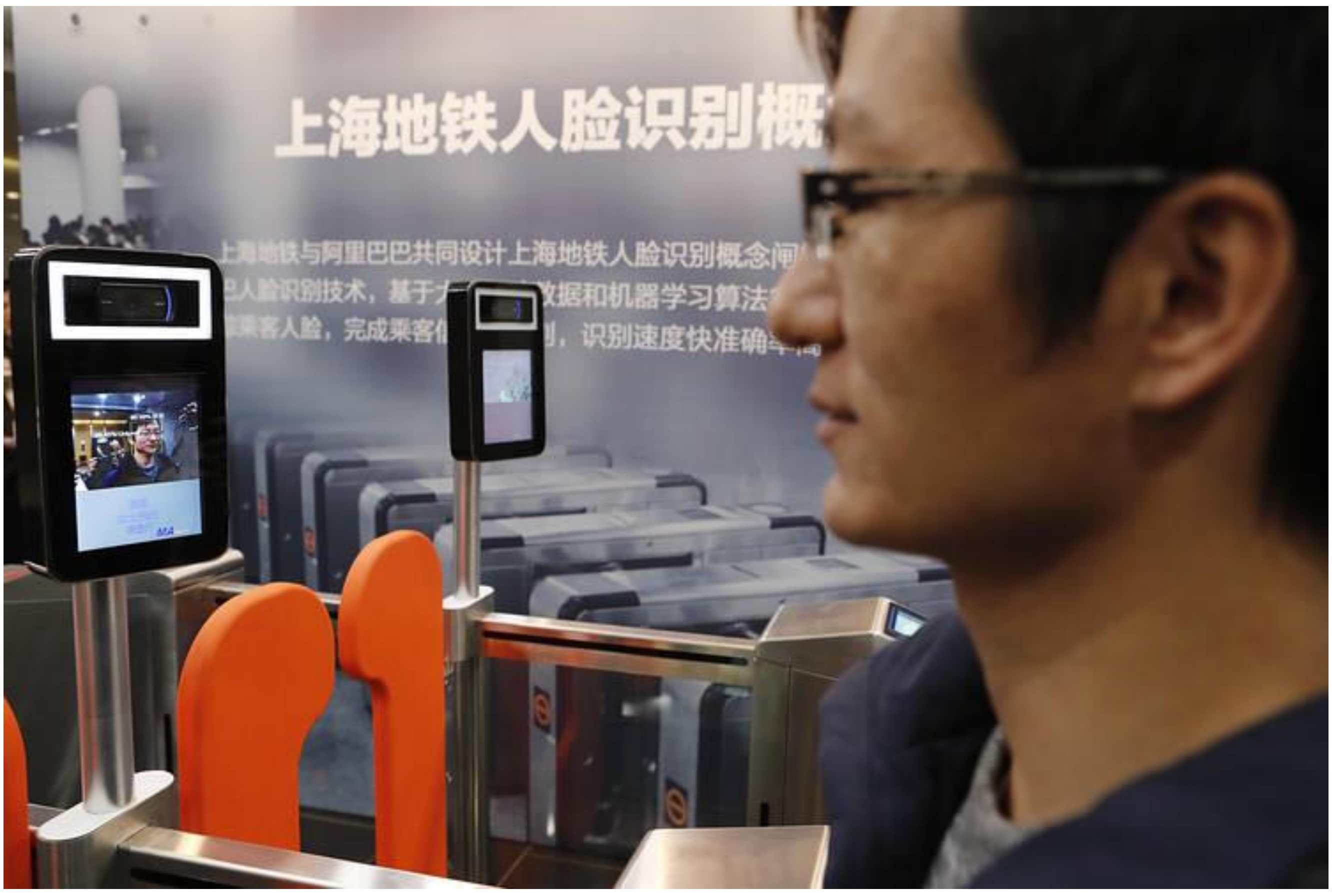
IDEAS | ESSAY

Can the U.S. Keep Its High-Tech Edge?

America still leads the world in innovative start-ups, but other countries are gaining fast. If we don't act, the next big thing will come from Beijing or Berlin.



A test of facial-recognition technology in the Shanghai Metro, 2017. Photo: Yin Liqin/China News Service/VCG/Getty Images

By
Richard Florida and Ian Hathaway
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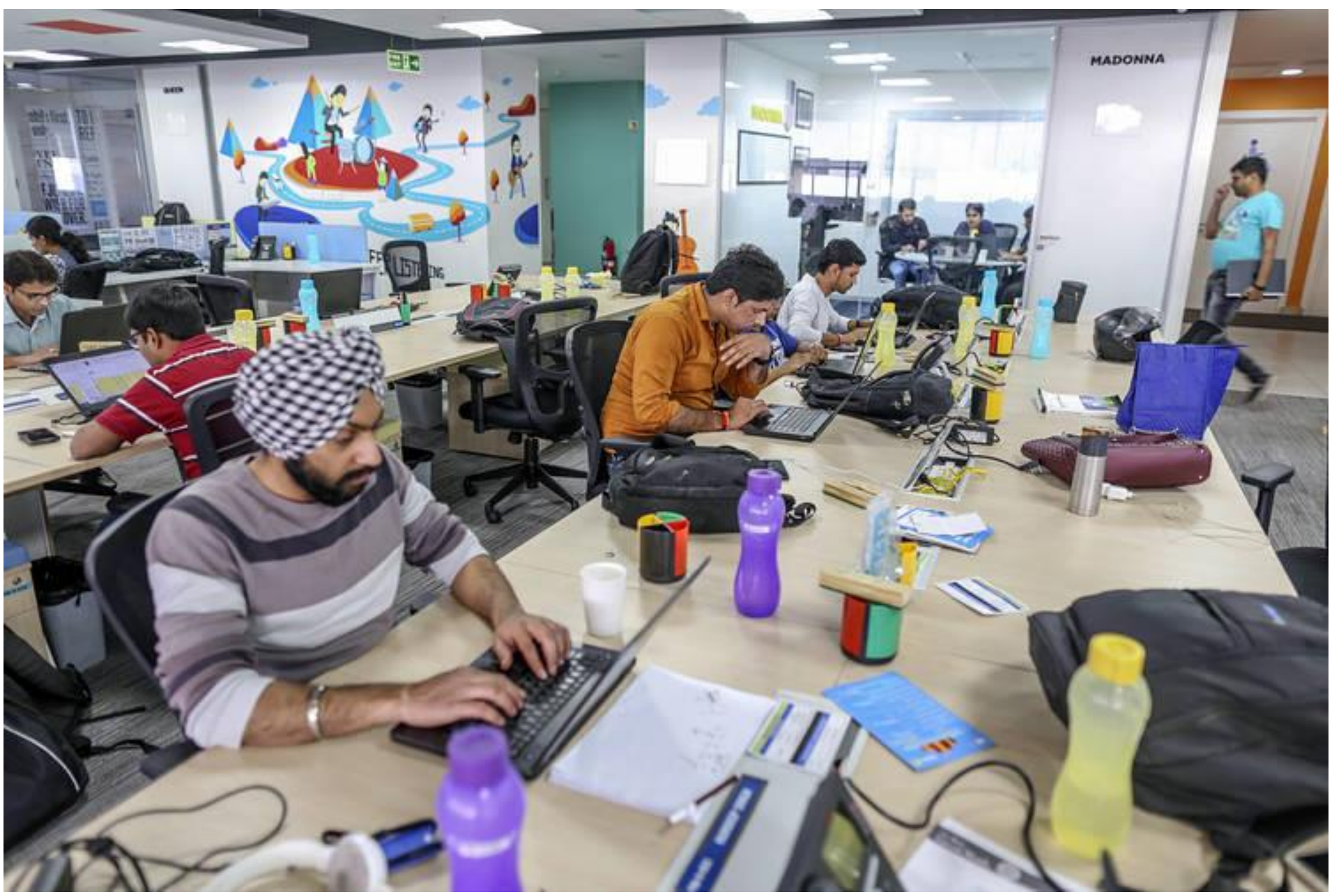
While recent headlines have blared about the Trump administration's multi-front trade war with Canadian dairy farmers, Chinese manufacturers and the European Union's steel, aluminum and automotive industries, a much larger economic threat has gone virtually unnoticed. The high-tech startups that have provided the U.S. with a powerful edge in fields such as computers, software, mobile devices, biotech, the internet and an array of digital platforms now face rapidly increasing pressures from foreign competition.

This looming crisis of American innovation could undermine the nation's long-running global advantage in bringing to market the next new technology, the next new industry, the next big thing. It may well be the gravest challenge yet to America's century-plus hold on global economic hegemony.

For decades, the U.S. held a near monopoly on high-tech startups. From advanced aeronautics to the personal computer, from biotech to big data, social media, e-commerce, smartphones and the cloud, these small, ambitious companies, backed by venture capital, gave America an overwhelming advantage in key new industries and supercharged our economy. Amazon, Apple, Microsoft, Facebook, Netflix and Google—all of them venture-backed startups within recent memory—are now among the most valuable publicly traded companies in the world. Amazon, Netflix and Microsoft alone accounted for more than 70% of S&P 500 returns in 2018.



Employees at Flipkart, an Indian e-commerce company, 2017. Photo: Dhiraj Singh/Bloomberg News

When we crunched the data on global venture capital investment over the past couple of decades, we found a startling decay in America's once-sturdy advantage. As late as the mid-1990s, the U.S. was home to roughly 95% of all venture capital investment in the world; today its share has dropped to just over 50%. About half of this two-decade decline has occurred in the last five years alone.

Venture capital activity in the U.S. continues to grow, with investments in American startups reaching around $90 billion in 2017. That total marks a 160% increase since 2010, and it beats all previous years except 2000—the peak of the dot-com boom. But venture capital investment in the rest of the world has grown more than twice as fast, by 375%, during the same seven-year period. It now totals about $80 billion. China gained the most ground, attracting nearly a quarter of all global venture capital investment in recent years, with India, the U.K., Germany, France, Israel, Singapore, Sweden and Japan together accounting for almost another fifth.

It would be a mistake, however, to see China or any other nation alone as America's singular rival. What we are experiencing instead is a collective, multilevel assault on our high-tech dominance from scores of places—principally large, global cities. Venture capital now flows into Shanghai, Beijing and London at a rate that rivals New York and Boston. And other cities, such as Berlin, Paris, Stockholm, Singapore, Bangalore, Delhi, Mumbai and Tel Aviv, are rising fast; they are already on par with Seattle and Austin. This past year, the much sought-after startup Sidewalk Labs (Alphabet's urban innovation company) selected Toronto over a raft of American cities to build out a mixed-use, technologically enabled, experimental neighborhood.

Foreign Innovation Hubs RiseOf the top dozen cities for venture capital invested, 2015-17, seven are outside the U.S.Source: Richard Florida and Ian Hathaway
San Fran.BeijingNew YorkSan JoseBostonShanghaiLos AngelesLondonHangzhouBangaloreDelhiBerlin$0 billion$10$20$30$40$50$60$70$80$90

Part of the challenge is that other nations have gotten better and smarter at playing the high-tech game. Over the past decade or so, they have increased their investments in research and innovation, strengthened their universities, worked hard to improve their own entrepreneurial ecosystems and dramatically upped their efforts to retain and attract the world's best and brightest talent. In just the past few years, more than 20 nations have launched startup visa programs designed to attract global entrepreneurs and innovators.

... As the U.S. Share of Funding FallsU.S. proportion of global venture capital invested, 1993-2017Source: Richard Florida and Ian Hathaway
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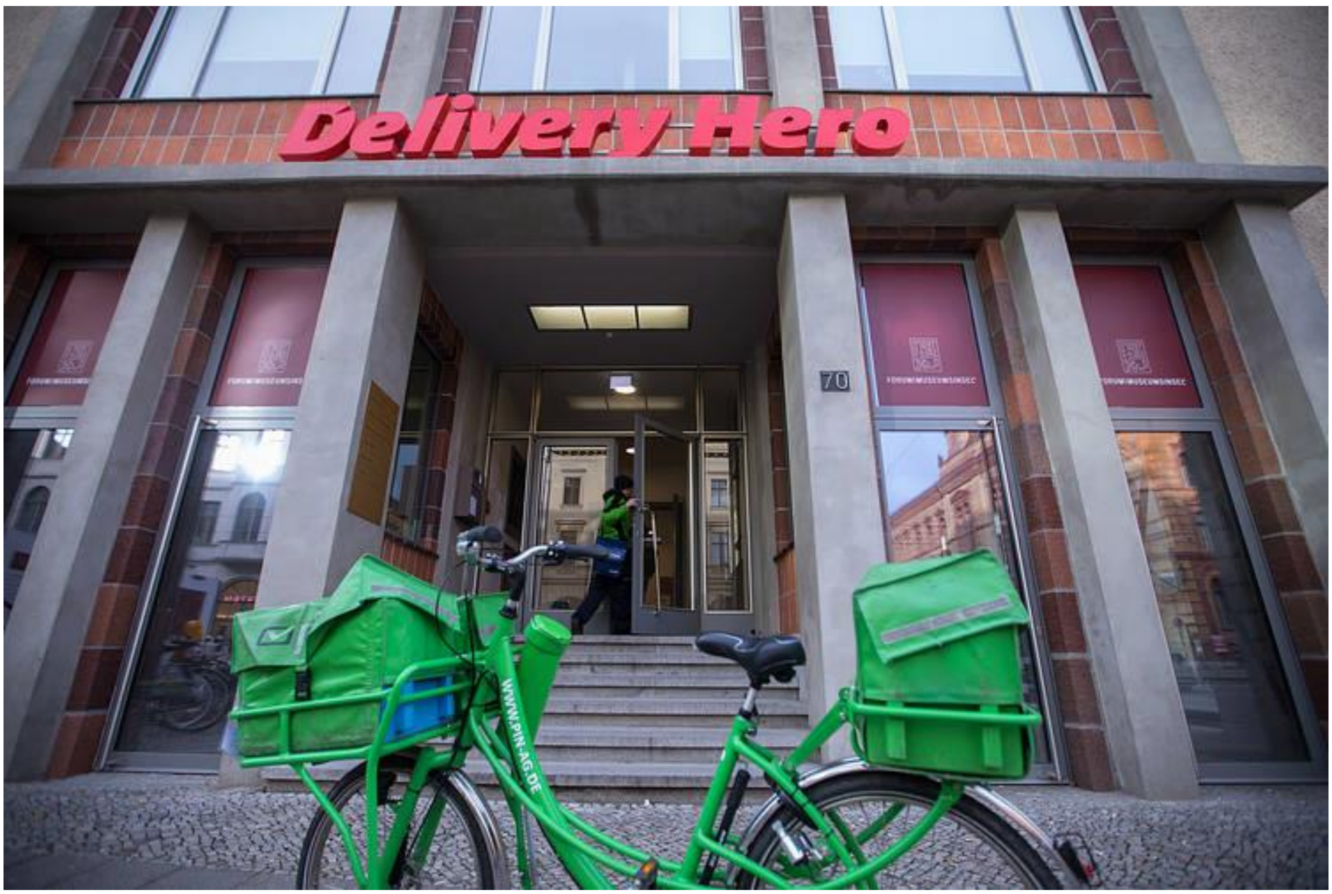
An even larger part of the problem is self-inflicted. America's innovation economy was long a beacon to the most talented and ambitious people in the world, who came in search of educational and economic opportunities. A third of U.S. venture-backed startups have at least one foreign-born founder, and that figure jumps to as much as half in Silicon Valley. But the U.S. has become much less welcoming to foreign talent in recent years—a long-running trend that has come to a head with the Trump administration's efforts to restrict student and work visas and to clamp down on immigration.

Add to these developments the growing unaffordability and inequality of leading tech hubs such as San Francisco, Boston, New York and Seattle. High-tech entrepreneurialism thrives in dense, diverse urban environments. But America's leading tech hubs have become victims of their own success, increasingly unaffordable for the innovators and entrepreneurs who create new technologies and launch startups. It's hard to innovate and build new businesses when the proverbial "garage" that has launched so many startups costs a million dollars or more.

All is not lost, to be sure. The U.S. still punches well above its weight in high-tech entrepreneurship. Our share of global startups and venture capital investment is much larger than our population and economic output alone can account for. But we can no longer rest on our laurels. High-tech entrepreneurs from other countries can, and increasingly will, build their tech startups at home. It is no longer necessary for them to come to the U.S.



The Berlin headquarters of Delivery Hero, an online food-delivery service. Photo: Krisztian Bocsi/Bloomberg News

What can be done to turn things around?

For one, we must double down on talent and innovation. We need to continue to invest in our leading universities, to pump out new research and attract the brightest people from around the world. And we must ensure that global talent can stay in U.S. after graduating. We need to be tearing down walls instead of trying to build them up, by making more visas available for students, skilled workers and foreign-born entrepreneurs.

We also need to bolster the local tech ecosystems that enable homegrown entrepreneurs and startups. And we must relax our overly restrictive zoning and building codes to ensure that innovators, entrepreneurs and creatives can afford to build and launch their new companies in our leading tech hubs.

The first step on the road to recovery is to acknowledge that you have a problem. In just two decades, our lead in tech entrepreneurship has been cut in half, and that erosion is accelerating rapidly. If this continues, the next big thing, or things, will be launched in Shanghai, Bangalore, Berlin or Tel Aviv, not somewhere in America.

These are not partisan or ideological issues. If the U.S. continues to lose its edge in innovation, our living standards will eventually decline. It's time to stop being distracted by economic and political sideshows and to do what's necessary to ensure that the startup companies propelling the global high-tech economy into the future are American ones.

—This essay is based on the authors' newly released study, "Rise of the Global Startup City: The New Map of Entrepreneurship and Venture Capital." Mr. Florida is University Professor at the University of Toronto's School of Cities and Rotman School of Management and a distinguished fellow at NYU. Mr. Hathaway is research director at the Center for American Entrepreneurship and a senior fellow at the Brookings Institution.