American Edge Project:

American Innovation Under Siege: Venture Capital Data Reveal Risks From Rising Global Regulatory Overreach
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Executive Summary

A Critical Juncture For U.S. Leadership In Global Technology

For decades, the United States stood as the undisputed global champion of innovation, pioneering a series of transformative technologies that bolstered national security, cemented our status as a global economic powerhouse, and disseminated democratic values worldwide. This era of technological supremacy both fueled economic growth and positioned the United States at the forefront of addressing global challenges.

However, America’s long-standing leadership is at a critical juncture, threatened on two fronts: the rise of China’s global technological ambitions and a shifting regulatory landscape within the United States itself. Historically, U.S. innovation thrived under a regulatory framework that nurtured and rewarded growth and risk-taking. Yet, this foundation is under siege, as domestic lawmakers increasingly look toward regulatory models of China and Europe, where stringent governance has stifled technological advancement.

This shift is compounded by the European Union’s (EU) introduction of regulatory measures targeting top U.S. tech companies, a troubling trend other nations are now considering. In this decisive moment, the stakes could not be higher for America and our Western allies, for losing our edge in innovation will have profound implications on our collective security, economic leadership, and the global spread of democratic values.

Recognizing the moment’s urgency, the American Edge Project (AEP) embarked on an extensive study, leveraging data from PitchBook, to shed light on the critical intersection of innovation and regulation. Our investigation uses venture capital (VC) data to trace the contours of dealmaking, value creation, and broader trends across the United States, China, Europe, and various U.S. states. This analysis provides policymakers at all levels with an understanding of how the venture ecosystem has historically propelled the U.S. economy forward and potential regulatory threats that loom on the horizon.

This study also examines the impacts of regulatory actions on innovation across key global and domestic players. With China’s tech landscape temporarily slowed by heavy-handed governance and Europe’s potential crippled by long-standing regulatory hurdles, this data-driven report underscores a pivotal warning for the United States: To maintain our global leadership in technology and innovation, policymakers must not import restrictive foreign regulatory regimes to our shores nor allow them to spread globally.

Instead, U.S. policymakers must craft a forward-looking agenda that champions and accelerates innovation, ensuring America’s position as global leader in technology remains unchallenged and continues to advance our national security, economy, and democratic principles across the globe.

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The Battle For Tech And Innovation Supremacy

The Global Tech Competition Intensifies

America and China are in a high-stakes competition for global tech leadership. The speed, power, and ubiquitous nature of technology will provide the winner with outsized geopolitical influence and military and economic advantages for decades to come.

To bolster its efforts, China is methodically executing a three-part plan to win the technology race, including 1) investing more than $1 trillion in the strategic technologies of tomorrow—artificial intelligence (AI), quantum computing, 5/6G wireless, and advanced semiconductors; 2) utilizing advanced hacking and spy networks to steal $500 billion annually in technology and intellectual property (IP) from the West to expedite its tech growth and military modernization efforts; 3) seeking to make the world increasingly dependent on its technology for geopolitical and economic leverage. China is making considerable progress in the tech race, including:

• Per the Australian Strategic Policy Institute, China has surged ahead of America in 37 of 44 critical technologies, and is approaching a near-dominant position in some technologies. China leads in advanced materials and manufacturing, energy, biotechnology, sensors, and certain AI elements, while the United States leads in advanced microchips, quantum computing, and vaccines. The countries are roughly tied in the defense/space category. These gains have positioned China "to excel not just in current technological development in almost all sectors, but in future technologies that don't yet exist." 

• Meanwhile, the Stanford AI Index posited that China continues to lead in AI journal, conference, and repository publications, and a National Security Commission on Artificial Intelligence (NSCAI) report found that if the United States does not act, it will likely lose its leadership position in AI to China and become more vulnerable to a spectrum of AI-enabled threats.

• The Information Technology and Innovation Foundation (ITIF) found China surpassed the U.S. in total innovation output, with accelerated gains over the past five years.

• In a report from the Harvard Kennedy School, researchers note, "China's whole-of-society approach is challenging America's traditional advantages in the macro-drivers of the technological competition, including its technology-talent pipeline, research & development (R&D) ecosystem, and national policies."

• America’s status as global leader in R&D spending is slipping. In the mid-1990s, the United States accounted for 40 percent of world R&D spending, but accounts for only 30 percent today—with most being corporate R&D. Yet China has climbed to 25 percent and tripled R&D spending as a share of gross domestic product (GDP). 

• Potent examples of China’s actions at a state level that span many key sectors include the Ministry of Industry and Information Technology taking over responsibilities for high-end tech and science development, while a new national data bureau has been formed to specifically handle data privacy and storage challenges.

U.S. policymakers must respond by accelerating innovation, not hamstringing it. That means unleashing America’s private sector and aligning incentives for faster growth to secure a commanding lead in all tech areas. Nearshoring, cybersecurity, improving cloud security, and upgrading frameworks so the internet can remain open and accessible are pillars of good innovation policy for the 2020s. Lastly, ensuring a thriving venture ecosystem can also help improve innovation rates across businesses, in addition to economic outcomes. A pertinent example is the Biden-Harris administration’s push for the Creating Helpful Incentives to Produce Semiconductors (CHIPS) law to fund more businesses that tackle different segments of the semiconductor supply chain, specifically targeting projects with capital investment under $300 million to help support smaller to midsize U.S. enterprises.

10. "Global Regulatory Overreach American Innovation Under Siege: Potent examples of China’s actions at a state level that span many key sectors include the Ministry of Industry and Information Technology taking over responsibilities for high-end tech and science development, while a new national data bureau has been formed to specifically handle data privacy and storage challenges. A pertinent example is the Biden-Harris administration’s push for the Creating Helpful Incentives to Produce Semiconductors (CHIPS) law to fund more businesses that tackle different segments of the semiconductor supply chain, specifically targeting projects with capital investment under $300 million to help support smaller to midsize U.S. enterprises.
U.S. Innovation Is Propelled By VC Activity

This analysis focuses on the U.S., China, and the EU, which combined account for almost 49% of global GDP based on purchasing power parity. The direction of their economies significantly influences the global economy.

**VC Helps Fuel U.S. Economic Growth**

A thriving venture industry is a key factor in U.S. economic and innovation success, with one study finding that 43 percent of the public U.S. companies founded between 1979 and 2013 were VC-backed, and they accounted for 82 percent of the total R&D of new public companies. PitchBook data shows that as of early November 2023, the total market capitalization of venture-backed U.S. companies (including notable companies such as Airbnb, Palantir, and Moderna) exceeded $1.5 trillion.

Moreover, the aggregate unicorn valuation in the United States stands at close to $2.4 trillion. Such figures occurred only after a decade-long ramp-up in venture investing seen in the chart above, with 2021 recording a peak of nearly 19,000 transactions across $350 billion compared with $49.7 billion and just over 10,000 transactions in 2013. Between 1990 and 2020, employment at VC-backed companies grew 960 percent, a rate eight times that of non-VC-backed companies, with 62.5 percent of those jobs being outside of California, Massachusetts, and New York. AEP research found that 8.7 million people were employed in tech as recently as 2021.

**European VC Has Been Constrained—Always**

Despite its large economy and cities with notable academic and talent hubs, Europe’s venture ecosystem hasn’t matched the United States in size. The chart shows European deal counts and values are aligned with U.S. trends but at significantly lower magnitudes, ranging from 22 percent to 48 percent of the United States from 2013 to 2023. This disparity is largely attributed to market fragmentation and regulatory hurdles in Europe, which limit unicorns’ market share. The Wall Street Journal highlighted the balance between regulation and innovation and said, “the EU might be getting that trade-off wrong.” For example, in Europe it’s difficult to grant stock options, a key part of startup payoffs for talent.

**China’s VC Ecosystem Suffers From Regulatory Crackdowns, But Has Still Grown**

Since 2018, the Chinese venture ecosystem has fluctuated, primarily skewed by the outlier financings of major tech companies that gain government approval. However, its growth over time is strong. Even though 2023 was a down year, China still saw over seven times more VC investment than in 2013 and five times the deal count. These growth rates, in short, are much larger than the United States’, climbing from $6.1 billion in 2013 to $45.1 billion in 2023, with a 2021 peak of $136.5 billion across 7,918 financings, as seen in the chart above.

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AI Advances Lead To Surge In VC

Dealing in AI has skyrocketed across both the public and private markets, as leaps in general and increasingly specific capabilities align more closely with potential business applications. While China’s AI market showed strong growth before recently slowing down, the United States and Europe have experienced even more activity in AI investments. A key factor behind the robust growth in AI is the proactive approach of American large tech companies, which have made substantial, long-term investments to speed up the development of new AI technologies and products. These technologies, including AI that can generate content, help consumers, analyze data, and assist in medical diagnoses, are expected to become more widespread. Although the Chinese government has made notable progress in AI without heavy investment from private companies, for the United States to be the AI leader, both government and business leaders must work together to develop a clear and united strategy for AI advancement.

Space Tech Is Still Ramping Up But Will Require Critical Investment

For space tech, Chinese space activity could develop into critical threats to U.S. commercial dominance and all associated scientific and technical advances. For example, China’s BeiDou constellation of 49 satellites (relative to the United States’ 31) and other systems enable global intelligence gathering and the capability to shoot down low Earth satellites and likely missiles. Other budding areas of space tech innovation include debris cleanup, solar radiation energy capture and storage, reusable satellites, and robotics testing. In order to keep up, private and public entities in the United States will need to maintain a healthy pace of investment. The United States relies far more on private contractors than China does, as evidenced by VCs still funding far more space tech businesses in the United States than in China, as government programs or government-associated corporations fund and/or operate most space tech programs in China.

Source: PitchBook  • Geography: Global

*As of November 8, 2023
State Innovation Is Propelled By VC Activity

PitchBook data shows how lesser-known innovation hubs have also seen greater growth rates overall as of late, with venture financings increasing rapidly. Miami, Philadelphia, Raleigh, and Indianapolis are all among the top 25 metropolitan areas in the United States for compound annual growth rates in VC deal count since 2013.

This reflects the broadening of startup activities and venture capital distribution across the United States over the past decade. By 2023, a shift toward geographical diversity in investments is clear, moving beyond traditional hubs. This trend, fueled by remote work, varying operating costs, regulatory differences, and talent acquisition, suggests that as venture capital spreads more evenly and innovation becomes more widespread, it underscores the need for lawmakers to approach regulation with extra deliberation to support the evolving entrepreneurial ecosystem nationwide.

U.S. VC deal count and value in fast-growing venture ecosystems (2013-2023)*

1. Philadelphia, PA
   Deal count: 3,653
   Deal value: $28.4B

2. Miami, FL
   Deal count: 2,915
   Deal value: $26.4B

3. Raleigh, NC
   Deal count: 1,610
   Deal value: $18.2B

4. Indianapolis, IN
   Deal count: 834
   Deal value: $2.9B

5. Sacramento, CA
   Deal count: 601
   Deal value: $4.3B

6. Milwaukee, WI
   Deal count: 302
   Deal value: $8.9B

7. Birmingham, AL
   Deal count: 282
   Deal value: $1.4B

8. Buffalo, NY
   Deal count: 266
   Deal value: $1.5B

9. Portland, ME
   Deal count: 227
   Deal value: $0.9B

10. Albany, NY
    Deal count: 227
    Deal value: $0.8B

11. Reno, NV
    Deal count: 220
    Deal value: $2.3B

12. Des Moines, IA
    Deal count: 204
    Deal value: $0.6B

13. Jacksonville, FL
    Deal count: 176
    Deal value: $0.9B

14. Greensboro, NC
    Deal count: 174
    Deal value: $0.9B

15. Virginia Beach, VA
    Deal count: 168
    Deal value: $0.7B

16. Spokane, WA
    Deal count: 159
    Deal value: $0.5B

17. Fort Myers, FL
    Deal count: 144
    Deal value: $0.4B

18. Lafayette, IN
    Deal count: 113
    Deal value: $0.2B

19. Dayton, OH
    Deal count: 94
    Deal value: $0.4B

Existing VC hotspots
- New York City
- Bay Area
- Seattle
- Boston
- SoCal
- Chicago
- Austin
- Salt Lake City

Note: These metro areas were calculated as having top compound annual growth rates in VC deal count between 2013 and 2023.
Excessive Government Regulation Can Slow VC Activity And Innovation

VC deal activity with foreign investor participation by select regions

China's Regulatory Crackdown Continues To Hammer Its Economy And Dealmaking

From 2018 to 2019, venture dealmaking in China fell precipitously due to a political crackdown in multiple aspects, prioritizing certain sectors.21 Some investment firms are still trying to emphasize the positive, but in reality, the pullback has been significant, especially in critical technologies such as AI or quantum computing.22 Moreover, fundraising by Chinese venture firms remains very low, which bodes poorly for private capital stores to fund startups in the future.23 It is hard to overstate how much the Chinese government’s crackdown has also cost the Chinese economy thus far, with an estimated $6 trillion wiped out in Chinese and Hong Kong equities.24 Now, the Chinese central bank is trying to boost overall lending and growth, stating it will not crack down on tech companies anymore, but as tech companies still struggle to go public, concerns remain apparent.25 The year 2019 saw a drop from a previous high of over 7,000 venture deals to 5,461, for $78.3 billion in aggregate. In 2018, foreign participation in venture dealmaking in China was nearly equivalent to that of the United States in terms of deal value, at $69.0 billion and $76.1 billion, respectively, far outstripping that of Europe. However, since then, foreign investors have been much more active in the United States and Europe than in China. This is due in part to ongoing geopolitical tensions, with the recent escalation attributable to the crackdown by the Chinese government on companies’ innovation in financial technology, education technology, and other sectors. Although the Chinese government has recently tried to push a rhetorical shift, in the past year alone more than 12 executives have gone missing or been detained.27

The European Innovation Ecosystem Has Never Hit Full Growth

In Europe, the trend is different. Due to a slower start in codifying rules around venture investing for limited partnerships, plus turn-of-the-millennium changes in regulations and recent tightening of antitrust measures,28 European venture activity has never been able to grow to the level of U.S. venture activity as a result, despite similar foundational factors of research hubs and plenty of accessible capital.29

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24: "Chinese Stocks Have Lost $6 Trillion in 3 Years. Here’s What You Need to Know," CNN, Laura He, January 23, 2024.
28: "Chinese Stocks Have Lost $6 Trillion in 3 Years. Here’s What You Need to Know," CNN, Laura He, January 23, 2024.
McKinsey analysis has found that Europe lags in application and commercialization of its best research and technological innovation. Additionally, as shown by previous data and the “foreign participation” trend line in the chart above on page seven, there are fewer VCs active in Europe, especially at the size needed to fund companies into unicorn status. Costly, complicated European regulations continue to make growth difficult. For example, research has found that the General Data Protection Regulation (GDPR) led to less investment in startups after 2018. Newer regulation such as potential AI rules and the Digital Markets Act (DMA) exacerbate that state of affairs; for instance, it is likely that the recently passed AI legislation will require costly and protracted updates to carve out certain exceptions for some businesses. All these factors paint a dour picture: The EU will continue to see economic growth hindered and become less desirable for foreign investors, among others, as waves of legislation and regulation that are expensive and complicated to navigate mean slower startup growth and a declining pace of innovation.

For example, although it is two years prior to taking effect, the legislation’s intent is noble. The EU’s DMA is another example of potential unintended regulatory consequences. Enacted in 2023, this bill targets primarily large U.S. tech companies operating in the region ("gatekeepers" under the DMA). According to one study, gatekeepers could face an estimated $22 billion to $50 billion in new DMA compliance costs. If these costs are passed onto European businesses, 16 percent said they would switch from an American tech provider to a Chinese tech provider, further increasing the EU’s dependence on China-based technology. DMA could also slow innovation because the fines for noncompliance range from 10 to 20 percent of a gatekeeper’s worldwide turnover, which could dramatically reduce spending on R&D. The European Commission, which enforces DMA compliance, can even impose structural remedies, such as forcing a gatekeeper to sell part of its business. In many respects, this is reminiscent of the impact of the GDPR; enacted to protect consumer welfare, it ultimately led to a negative effect on EU technology venture investment, persisting for at least 2.5 years after its rollout.37

Cross-border Capital And Trade Are Critical To Scaling Up

The growth in cross-border capital flows was critical to the ramp-up in the late-stage venture scene in the United States in particular, thereby enabling the rapid growth of multiple unicorns and subsequent public listings. Although some unicorns’ public market performance has been choppy, by and large, this influx of capital has created subsequent liquidity, distinct consumer benefits such

<table>
<thead>
<tr>
<th>Year</th>
<th>Deal Value ($)</th>
<th>Deal Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>4,330</td>
<td>$24.9</td>
</tr>
<tr>
<td>2014</td>
<td>4,156</td>
<td>$31.3</td>
</tr>
<tr>
<td>2015</td>
<td>4,090</td>
<td>$29.8</td>
</tr>
<tr>
<td>2016</td>
<td>3,959</td>
<td>$26.6</td>
</tr>
<tr>
<td>2017</td>
<td>4,384</td>
<td>$30.5</td>
</tr>
<tr>
<td>2018</td>
<td>4,750</td>
<td>$51.0</td>
</tr>
<tr>
<td>2019</td>
<td>5,255</td>
<td>$45.4</td>
</tr>
<tr>
<td>2020</td>
<td>5,209</td>
<td>$46.7</td>
</tr>
<tr>
<td>2021</td>
<td>7,366</td>
<td>$89.3</td>
</tr>
<tr>
<td>2022</td>
<td>7,496</td>
<td>$76.1</td>
</tr>
<tr>
<td>2023*</td>
<td>5,216</td>
<td>$60.0</td>
</tr>
</tbody>
</table>

as more widely accessible avenues to financial tools and markets, and more. Recent research has noted that although only a handful of unicorns at this stage are generating significantly sized revenues, they are notable—Palo Alto Networks and Service Now are prime examples.40

However, growing into new markets may become more complicated in the future. In October 2023, the United States dropped digital trade demands during World Trade Organization (WTO) talks.41 The demands centered on free cross-border data flows and no requirements for reviews or data localization. Aimed at giving leeway to regulate big tech companies, the removal of these demands ironically may hamper innovation and cap the growth of small to mid-sized businesses the most, as they do not have the resources to navigate complicated regulations governing information flows, IP protection, and myriad data requirements.

The Potential Impact Of Domestic Regulations

Currently, there is a slew of legislation and regulatory approaches that are shifting market dynamics in the United States and Europe that showcase different examples of what could be helpful or harmful to overall innovation, dealmaking, liquidity, or venture activity.

• Major federal legislation could damage the innovation ecosystem: In recent years, Congress considered several antitrust bills that would have restricted competition and investment in the tech industry, with one analysis pegging the cost to small business sellers to be at least $500 billion in lost sales over five years,42 the equivalent of a 5.2 percent tax. Today, various legislative proposals could chill innovation, including a bill to create a new federal agency to regulate the tech sector in a comprehensive manner.43

• Federal agencies are tightening their grip: The Federal Trade Commission (FTC) and Department of Justice (DOJ) issued new merger guidelines that seek to rewrite decades of antitrust policy by declaring structural presumptions against certain mergers and by downplaying their possible benefits.44 In addition, those agencies are considering a burdensome merger disclosure form that would more than quadruple filing costs.45 In the same vein, in response to an Executive Order on AI, the Commerce Department has mandated that companies share sensitive data about large language models. These and other regulatory moves could reduce liquidity for startups and add time and expense to the development of new products.

• Overly aggressive federal law enforcement: The FTC and DOJ have brought antitrust challenges, often based on very aggressive if not speculative theories,46 against companies in the defense, healthcare, and tech sectors. Though most of these suits have failed, in some instances they have caused U.S. companies to walk away from deals, including vertical mergers in critical industries, that in the past likely would have closed with few problems.

• Improper trans-Atlantic influence: For years, British and European regulators have been accused, often with cause, of using competition policy to mask protectionist ends. In some recent merger cases, the FTC has been accused of improperly “colluding” with European competition officials to scuttle primarily U.S. transactions.47

• State legislatures are passing additional regulations: In 2023, states enacted 65 tech policy changes, mostly focused on internet usage, AI, and online privacy. This year, some states are considering premerger notification bills and antitrust frameworks popular in Europe, such as “abuse of dominance” laws.48 If enacted here, the European-style bills would discourage competition and break sharply from U.S. antitrust traditions.

• Despite these stringent regulatory proposals and lawsuits, recent polls suggest policymakers on both sides of the Atlantic are out of step with voter sentiments. A recent survey by AEP discovered that 80 percent of U.S. and EU voters believe in a united stance against tech threats from nations such as China and Russia.49 A significant majority oppose excessive regulations that could weaken their tech sectors in global competition.
New M&A Regulations Could Hurt State Startup Growth

The table below shows that most startups exit via acquisition. New restrictions on M&A activity could dramatically undermine startup growth, capital formation, and job creation in the states.

VC-backed exit count among select U.S. states since 2013 by type*

<table>
<thead>
<tr>
<th>State</th>
<th>Exit</th>
<th>Count</th>
<th>%</th>
<th>State</th>
<th>Exit</th>
<th>Count</th>
<th>%</th>
<th>State</th>
<th>Exit</th>
<th>Count</th>
<th>%</th>
<th>State</th>
<th>Exit</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>Acquisition</td>
<td>3,797</td>
<td>79%</td>
<td>NJ</td>
<td>Buyout</td>
<td>49</td>
<td>21%</td>
<td>AZ</td>
<td>Acquisition</td>
<td>156</td>
<td>68%</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Buyout</td>
<td>538</td>
<td>11%</td>
<td>GA</td>
<td>Acquisition</td>
<td>1,170</td>
<td>77%</td>
<td>Buyout</td>
<td>31</td>
<td>23%</td>
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<tr>
<td></td>
<td>Public listing</td>
<td>497</td>
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<td>Buyout</td>
<td>143</td>
<td>79%</td>
<td>Buyout</td>
<td>24</td>
<td>21%</td>
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<td></td>
<td>Public listing</td>
<td>472</td>
<td>9%</td>
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<td>Buyout</td>
<td>86</td>
<td>65%</td>
<td>Buyout</td>
<td>8</td>
<td>20%</td>
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<td>NY</td>
<td>Acquisition</td>
<td>1,170</td>
<td>77%</td>
<td>CT</td>
<td>Buyout</td>
<td>147</td>
<td>65%</td>
<td>Buyout</td>
<td>24</td>
<td>20%</td>
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<tr>
<td></td>
<td>Buyout</td>
<td>244</td>
<td>16%</td>
<td>MA</td>
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<td>730</td>
<td>67%</td>
<td>Buyout</td>
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<td>25</td>
<td>11%</td>
<td>Buyout</td>
<td>16</td>
<td>8%</td>
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<td></td>
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<tr>
<td>TX</td>
<td>Acquisition</td>
<td>517</td>
<td>67%</td>
<td>NC</td>
<td>Acquisition</td>
<td>147</td>
<td>65%</td>
<td>Buyout</td>
<td>34</td>
<td>37%</td>
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<td></td>
<td>Buyout</td>
<td>180</td>
<td>23%</td>
<td>IN</td>
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<td>22%</td>
<td>Buyout</td>
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<td>70%</td>
<td>Buyout</td>
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<td>37%</td>
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<td></td>
<td>Buyout</td>
<td>155</td>
<td>14%</td>
<td>MO</td>
<td>Buyout</td>
<td>43</td>
<td>22%</td>
<td>Buyout</td>
<td>3</td>
<td>3%</td>
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<td>253</td>
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<td>MD</td>
<td>Acquisition</td>
<td>132</td>
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<td>Buyout</td>
<td>27</td>
<td>31%</td>
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<td></td>
<td>Buyout</td>
<td>78</td>
<td>21%</td>
<td>WI</td>
<td>Buyout</td>
<td>33</td>
<td>17%</td>
<td>Buyout</td>
<td>6</td>
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<td>43</td>
<td>11%</td>
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<td>Buyout</td>
<td>26</td>
<td>14%</td>
<td>Public listing</td>
<td>2</td>
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<td>125</td>
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<td>19</td>
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<td>Buyout</td>
<td>97</td>
<td>23%</td>
<td>D.C.</td>
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<td>3%</td>
<td>Public listing</td>
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<td>5%</td>
<td></td>
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<td>10</td>
<td>6%</td>
<td>Public listing</td>
<td>7</td>
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<td>CO</td>
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<td>249</td>
<td>67%</td>
<td>TN</td>
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<td>Public listing</td>
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<td>9%</td>
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<td>1</td>
<td>1%</td>
<td>Public listing</td>
<td>3</td>
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<td>216</td>
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<td>NV</td>
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<td>OR</td>
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<td>27%</td>
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<td>21%</td>
<td>Public listing</td>
<td>3</td>
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<td>Public listing</td>
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Source: Pitchbook  •  Geography: U.S.
*As of November 8, 2023
Conclusion

How The United States Can Maintain Tech Supremacy

The digital economy represented 10.3 percent of U.S. GDP, or $2.4 trillion, as of 2021; it is likely even larger now. Ensuring there is full potential and support for innovation in this critical sector will be imperative in the 2020s and beyond.

The history of innovation in the United States has been closely intertwined with a favorable framework of incentives and regulations for entrepreneurship, effective public policies that empowered the growth of private companies, effective public-private partnerships, key regulatory shifts, and the growth of the venture industry. As outlined above, growth in venture activity has accompanied the proliferation of innovation throughout the 2010s, from the shift to the cloud and adoption of AI to new drug therapy programs and platforms. Hence, the U.S. startup and venture ecosystem has remained unparalleled, with a near-record $1.1 trillion in assets under management, per PitchBook. With $854.0 billion of that value concentrated in VC portfolios, much value remains to be unlocked and expanded in public markets, with ensuing liquidity for investors and beneficial innovation for consumers.

But for how much longer? U.S. innovation in key sectors is matched or eclipsed at the research and IP stages by China and other foreign governments, fostered by intentional government policies. Public-private partnerships or outright development by government agencies accompanied by massive budgets, among other tactics, have been producing remarkable results for both China and India. For well over a decade, U.S. national and economic security has been compromised by Chinese government funding of adaptations of U.S. IP, obtained either in partnership or via outright theft, to increase specific—often militaristic—capabilities. China continues to double down on policies aimed at advancing the production of critical components for leading technologies, from renewable energy to biotech to space tech.

To counter this, other developed nations and especially the United States need to leverage their historic strengths that produced superior results via more effective and cohesive frameworks of funding and supportive regulation across the entire chain of innovation, which include:

- A bipartisan, multi-administration commitment to creating a supportive regulatory environment that will accelerate U.S. innovation capabilities, especially in strategic technologies such as AI, quantum, 5/6G, microchips, and more.
- Greater transparency around regulatory decision-making not just at the FTC but also in Congress, and any other relevant agencies, including conducting analyses on the potential impact to U.S. national and economic security.
- The preservation of favorable tax treatment for investment funds and R&D spending to unlock VC dry powder and encourage even more investment.
- Partnership between the U.S. government and education providers to ramp up more pathways to science, technology, engineering, and math (STEM) careers and research.
- Scrutiny of the extent to which foreign entities, especially those suspected to be allied with foreign government interests, are involved in cross-border M&A or foreign investment, which could enable access to key American IP.

All aspects of the innovation, startup, and venture ecosystems will benefit from such concerted national efforts, which will in turn improve the security of the United States and its allies while improving, expanding, and spreading technological innovations to benefit people worldwide.

Source: PitchBook  •  Geography: U.S.
*As of March 31, 2023

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U.S. innovation strengths: “How does the U.S. innovation ecosystem, characterized by its competitive private sector and diverse innovation landscapes, uniquely position America in the global technology race?”

The history of America is a history of innovation, which flows from an intentional and deep partnership among government, private businesses, and universities. This “innovation triangle” generates more research dollars, better education, and a more rapid pipeline from idea to product. In recent decades, the private sector has become the primary source of R&D spending, much of it from larger tech companies who have the resources to invest heavily in emerging technologies.

American innovation also benefits from a stable and predictable legal framework that encourages investment, rewards success, and allows companies to compete freely. Unlike in other parts of the world, the United States historically has not “picked winners and losers” in the marketplace or sought to “shoot the winner” by punishing success. This framework allows new companies to receive critical financing and technical expertise from a range of sources, including large companies and private equity, all of which underpins America’s innovation ecosystem.

China’s tech ambitions: “What threats do China’s technological ambitions pose to the U.S. position as a global leader in technology, and how should American policymakers react?”

China has a three-part plan to usurp America as the globe’s technological superpower: First, invest trillions in its own tech capabilities; next, steal as much Western tech as possible; and finally, make the West dependent on Chinese technology to gain economic and geopolitical leverage. The Chinese Communist Party’s (CCP’s) plans include “Made in China 2025” to upgrade China’s manufacturing, an “Internet Plus Plan” to digitize China’s economy, and a plan to become the world leader in AI by 2030.

This U.S.-China tech competition will define whether the leading companies in our future tech sector are American or Chinese—and whether the internet remains open to U.S. values of freedom and democracy. To preserve our edge, U.S. policymakers must implement policies that support American companies as they launch the technologies of tomorrow. The United States also must work closely with other democracies to strengthen our cybersecurity infrastructure and governance.

Global regulatory impacts: “How could international regulatory strategies, particularly by the European Union targeted at American companies, shape the global balance of technological leadership in the face of China’s rise?”

EU regulations on American tech companies, such as the DMA, M&A restrictions, and new AI laws, may inadvertently give China a technological edge. These rules can slow down innovation by creating hurdles for U.S. and European tech firms, allowing Chinese companies to advance unimpeded.

To counter China’s rise, the United States and its allies need a united strategy that encourages innovation rather than stifling it. Copying the EU’s restrictive approach could also lead to increased reliance on Chinese technology, weakening the West’s global tech leadership. A collaborative effort focusing on fostering technological advancement and countering China’s global ambitions is crucial. By working together, we can maintain a competitive stance against China and ensure the West remains at the forefront of technological innovation.

M&A rules and innovation: “How could new M&A regulations affect the innovation landscape in the United States?”

The new M&A guidelines would allow the government to pick economic winners and losers, dictate market structures, and play to favored constituencies. One example: The guidelines explicitly target larger U.S. tech companies for greater scrutiny, including past acquisitions. That means agencies such as the FTC and DOJ could attempt to unwind decades-old mergers, disrupting a company’s willingness to invest in R&D, gain efficiencies, launch new products, and create new jobs through expansion.
AEP Perspectives On Policy, Competition, And More (Continued)

Startups in the current regulatory climate: “Considering the importance of venture capital, what challenges and opportunities do startups face in the current U.S. regulatory environment?”

Access to capital is the foundation of the startup ecosystem. Capital enables startups to transform ideas into new technologies that power our economy. A startup, in turn, secures investment based on the possibility of exit at some future point that yields large returns for the investor.

Although America retains a vibrant startup culture, some policymakers are seeking to erect barriers to exit via acquisition. Antitrust authorities have proposed changes to the merger guidelines and reporting form that would quadruple filing costs, delay deals, and deter larger companies and private equity from investing in startups. Such proposals could deny financing and expertise to startup founders, most of whom want to exit via acquisition by a larger company.

Instead, policymakers should fuel investment in startups, harmonize regulation to reduce regulatory bottlenecks, keep regulations nimble so that they can evolve alongside technology, and expand innovation ecosystems.

State-driven innovation: “How do state-level policies contribute to national innovation, and what are the potential impacts of federal regulatory changes on this dynamic?”

States promote national innovation through “light touch” regulatory climates that encourage investment. Some states have adopted regulatory sandboxes that enable companies to test new products without fear of punitive lawsuits and that allow governments to learn how to govern new technologies. According to a study, innovation hubs “outperform other regions and business districts economically, financially, and socially.” Beyond that, states can pursue public-private partnerships and invest in high-quality education and training programs.

On the other hand, states can chill innovation by imposing more burdensome regulatory requirements than Washington. A patchwork of legal requirements can impede national commerce. For example, some states are considering “abuse of dominance” antitrust laws that break sharply from U.S. antitrust traditions. Other states have passed privacy, social media, and well-intended child protection laws that do little to protect consumers but that erect obstacles to offering services that traverse state lines. When necessary, Congress should harmonize the rules across the country.

Regulatory balance: “What would constitute an ideal balance between regulation and innovation to ensure the United States does not lose its competitive edge in technology?”

For the past 40 years, the United States has wisely balanced regulation and innovation by focusing on the welfare of consumers. Across administrations, both parties have agreed that antitrust law should protect consumers and that economic analysis should guide enforcement when the interests of consumers, rather than particular competitors, are threatened. These objective standards foster the rule of law, prevent politicized law enforcement, and encourage investment and innovation.

Unfortunately, some policymakers want to break from this consumer-centric, evidence-based approach by imposing regulations without evidence of competitive harm. The antitrust agencies, for instance, are seeking to dictate market structures irrespective of economic evidence. Other policymakers propose to create new licensing regimes for AI, without evidence of harm, even though such proposals likely would disadvantage startups and smaller companies. By maintaining the focus on consumers, and by regulating narrowly to address actual problems, policymakers can properly balance regulation and innovation.

Future outlook: “Considering the current challenges and opportunities, what are the key policy actions the United States must undertake to sustain its technological dominance and counteract rising global competition?”

To maintain our technological leadership and counter the rise of our autocratic adversaries, policymakers should, one, ensure that America wins the tech competition with China; two, help American companies launch the technologies of tomorrow; three, empower American companies to compete globally; four, strengthen our supply chain; and finally, protect digital infrastructure. These policies would preserve American leadership in innovation, improve the startup ecosystem, and spread the benefits of the innovation economy more broadly across the country.

In particular, the government should invest significant resources to accelerate the pace of innovation and prohibit China from accessing critical dual-use technologies, such as advanced microchips. Moreover, the United States should collaborate closely with its allies to promote global technology standards that will advantage democracies over authoritarian regimes. Finally, policymakers should “do no harm.” We must avoid hampering American innovation with punitive rules, such as changes to the antitrust laws and licensing regimes.