Not Again: Why the United States Can't Afford to Lose Its Biopharma Industry

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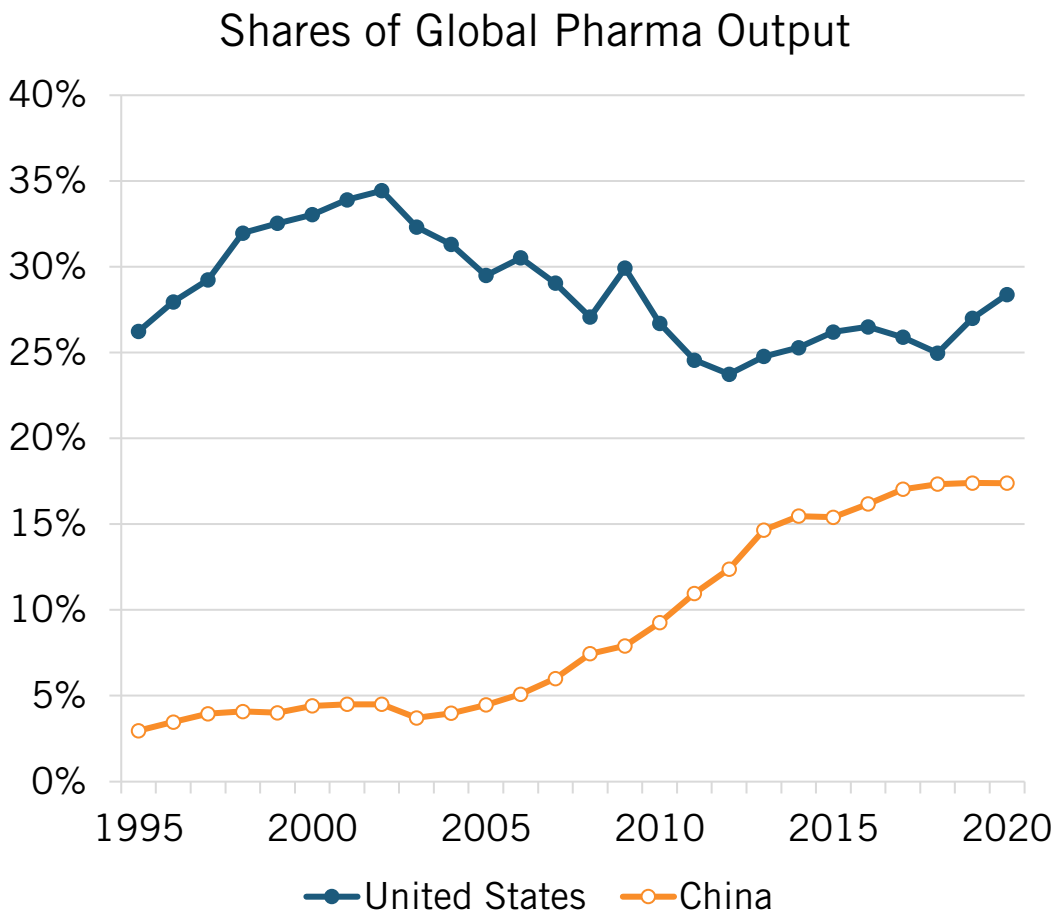
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U.S. Leads the World, but China Is Gaining

- U.S. leads on most measures:
  - Production (share)
  - Novel drugs
  - Early drug availability
- Why does this matter?
  - Advanced industry competitiveness
  - Higher-paying jobs
  - Improved health



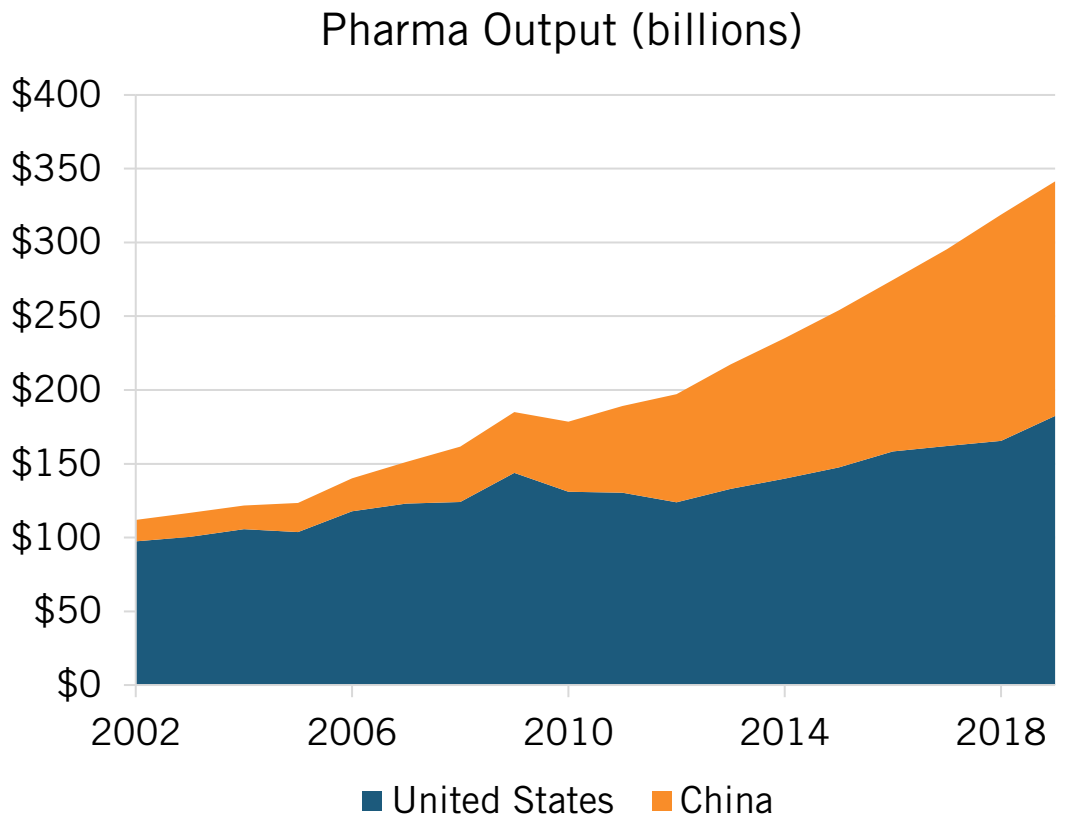
Policy Reasons for U.S. Biopharma Leadership

- Robust IP protection regime:
  - Stimulates private R&D investments
  - Results in more novel drugs
- Limited government-imposed price controls
- Supportive science policies:
  - Orphan Drug Act (1983)
  - PDUFA (1992)
- Strong institutions:
  - Research universities
  - NIH, ARPA-H
- **Key question:** Will this continue?



Why Is China Rising?

- Aggressive strategy:
  - Government supports
  - Expedited drug reviews
  - Strengthened IP protections
  - Partnerships with foreign firms
- Seizing opportunity:
  - U.S. losing domestic manufacturing for drug APIs
  - China attracting with subsidies and cheap labor
  - China's biopharma output surged from $14 to $158 billion
- Next decades pivotal.



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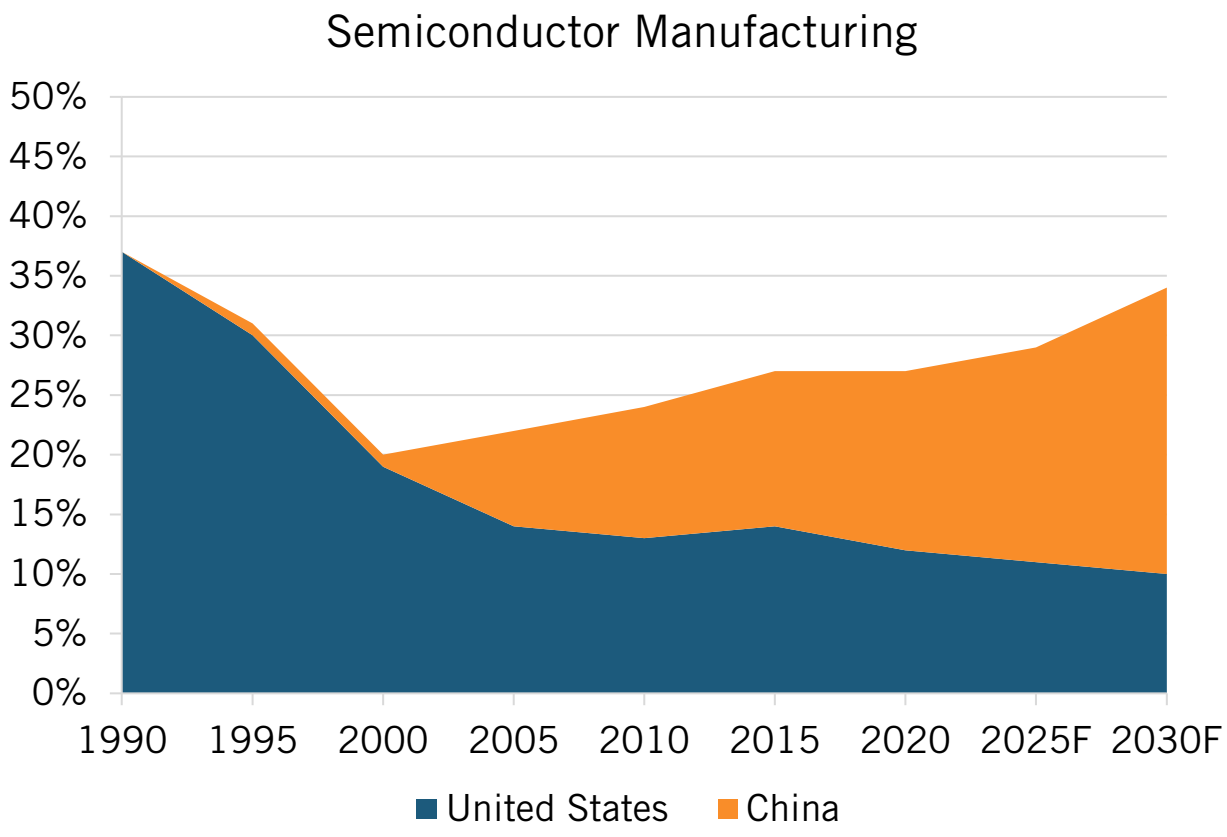
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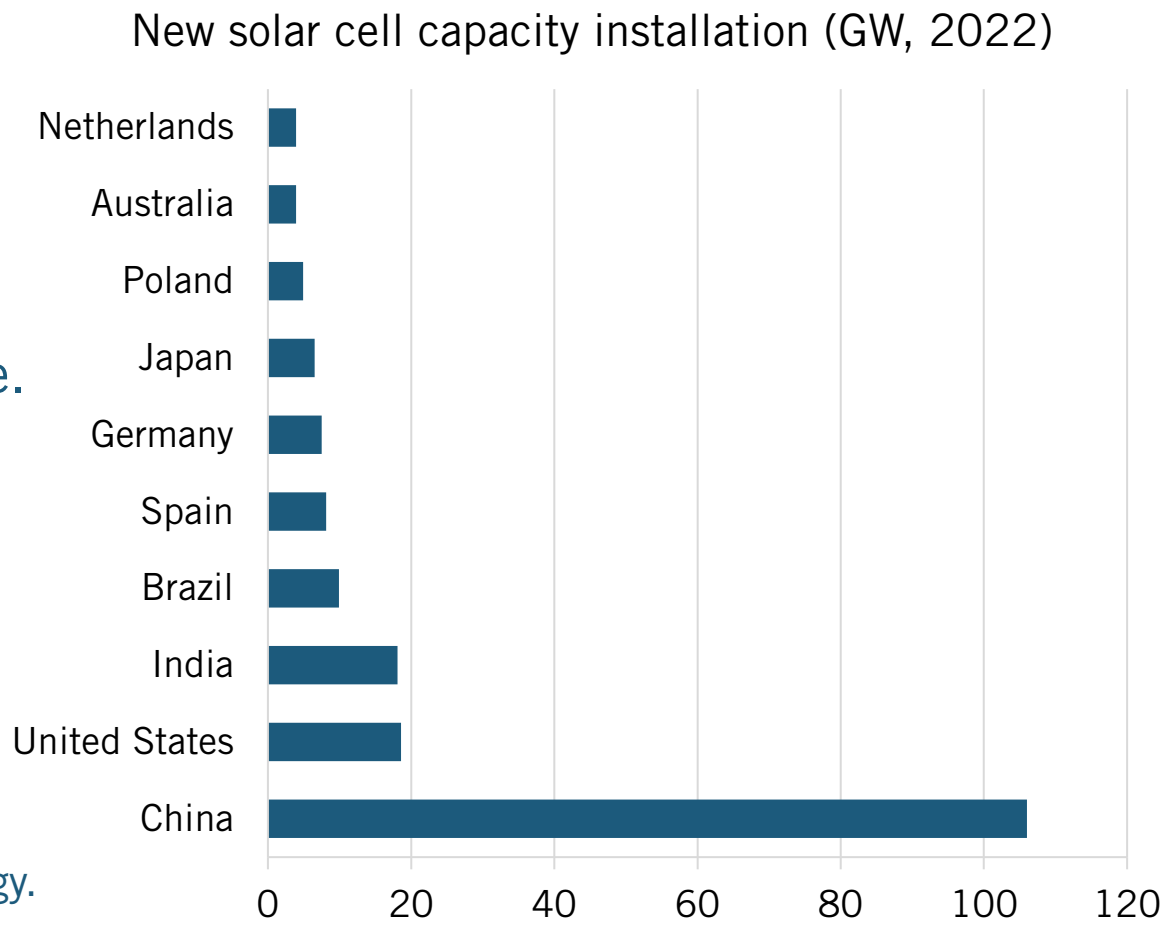
U.S. Advanced Industry Losses: Semiconductors

- **1946:** Bell Labs invents transistor; obtains first military R&D contract.
- **1950s-1970s**: Government support fosters growth. U.S. leads the world.
- **1980s:** Japan's industry rises, backed by subsidies, protectionist policies. US firms open plants overseas.
- **2000s:** China surges, backed by huge government subsidies ($170 billion).
- **Today:**
  - U.S. leads in global market share (48%), but huge manufacturing losses.
  - CHIPS Act to restore domestic production, and avoid supply chain disruptions amidst escalating geopolitical tensions.



U.S. Advanced Industry Losses: Solar Panels

- **1954:** Bell Labs develops first solar cell. Primary market: aerospace. Government support, federal procurement contracts.
- **1980s:** U.S. has world's top solar suppliers.
- **1990s:** U.S. solar interest wanes. Global industry evenly divided: U.S., Japan, Europe.
- **Since 2000:** China's industry surges to meet global demand, huge government support.
- **Today:**
  - China controls 80% of global solar panel supply chain, has world's top 10 suppliers.
  - IRA incentives to boost solar panel installations & domestic solar manufacturing, shift to clean energy.



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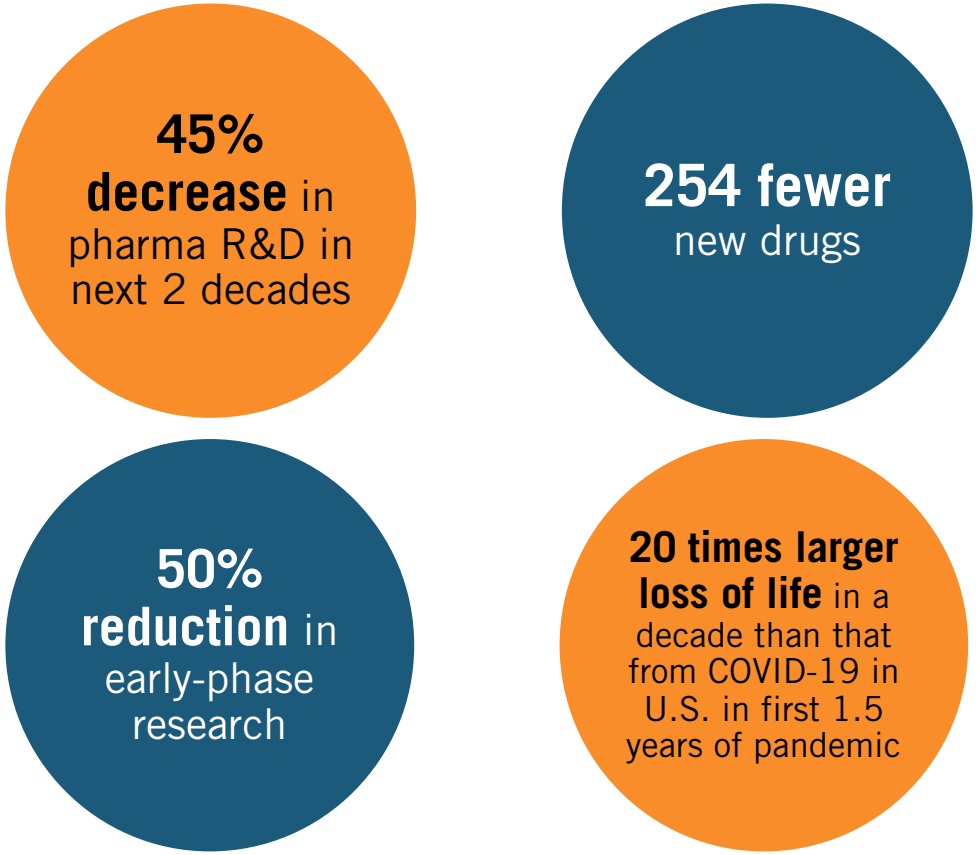
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Consequences of Biopharma Policies

Current & Proposed Policies

- Drug price controls
  - IRA Medicare provisions
  - Bayh-Dole march-in proposals
- Weakened IP protections
  - Undermining Bayh-Dole
  - TRIPS waiver

Consequences



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Takeaways and Recommendations

- U.S. biopharma leadership never guaranteed.
- Must be nurtured through a supportive policy environment.
- Recent U.S. policies targeting the industry are harming innovation.

To maintain biopharma leadership:

- Continue federal R&D investments and efforts to bolster domestic supply chains.
- Avoid government-imposed price controls.
- Restore a strong IP environment.



Thank You!

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