AI and the US Economy

Global Insights Center

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The Hartford

Key Takeaways

AI has become a larger factor in the economy. It is contributing to growth in capital expenditures, construction, and consumer spending. But AI alone is not driving the economy.

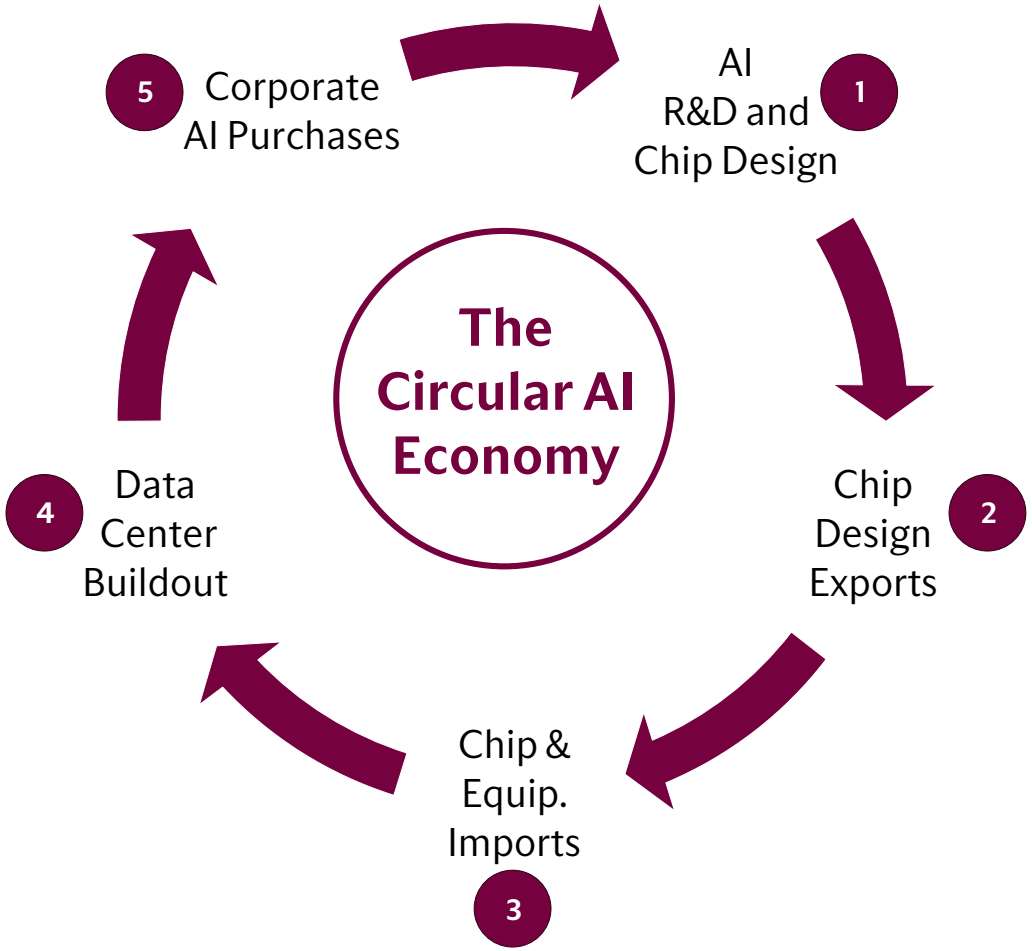
AI may be disrupting labor demand. Early signs point to AI offsetting some entry-level jobs. Though AI is also creating jobs across industries and geographies.

AI poses risks and opportunities. If the investments pay off, they could make the economy more efficient and boost growth; if not, AI may have a correction that reduces growth.

The AI Economy: AI is woven into many industries

AI and tech have increased influence on the rest of the economy.

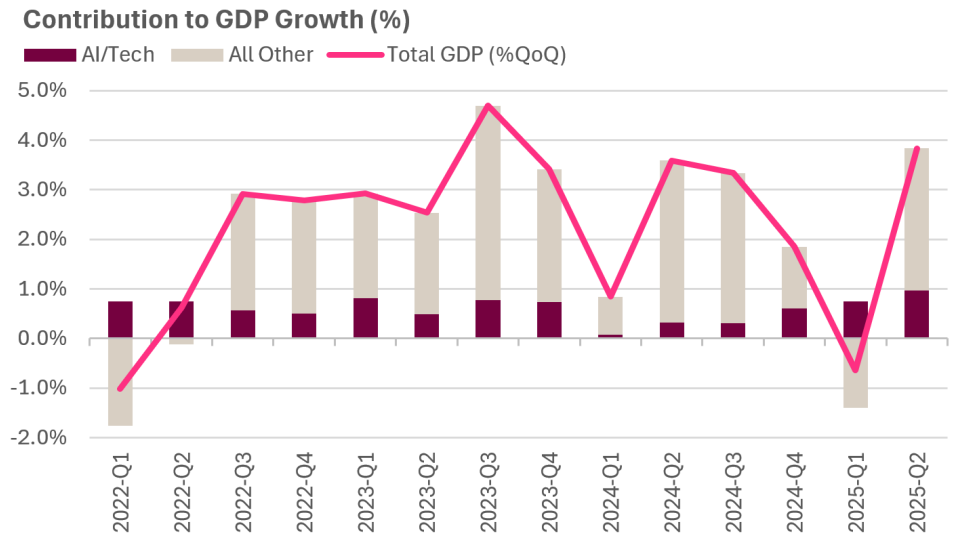
- AI impacts the economy through more than just jobs and investment in the traditional tech sector (1).
- Global trade, and specifically US tech imports/exports are driven by exports of semiconductor intellectual property (2) and import of finished semiconductors (3).
- The buildout of AI data centers and chip manufacturing plants is driving construction and energy investment activity in the US (4).
- Businesses throughout the economy are spending more on investments in software developed by the tech sector, boosting tech company revenues and feeding new growth (5).
- This circular economy drives growth but raises risks if any part of the cycle breaks down, all of which have potential vulnerabilities.



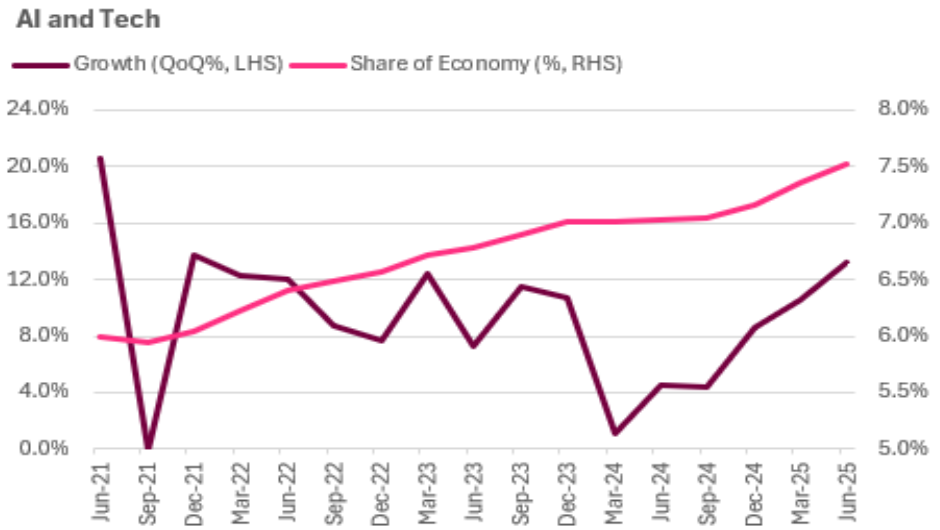
US Economy: AI is a top source of economic growth

Economic growth is increasingly reliant on AI and tech.

- AI and tech have become a larger factor in the economy.
- Growth has picked up in software sales, data center construction, tech equipment sales, and AI R&D.
- AI and tech make up **7.5% of the US economy.** The sector has been growing rapidly and was directly responsible for **more than 25.0% of GDP growth** in Q2.
- AI and tech also lifted consumer spending, increased energy demand, supported job creation in certain sectors, disrupted job demand in others, and began to reshape global trade.
- While AI has become an important growth engine, it's not the only engine; healthcare is also growing rapidly, making up almost 40.0% of GDP growth in Q2-2025 and accounting for more than 19.0% of the economy.



Source: Bureau of Economic Analysis, Haver Analytics, The Hartford's Global Insights Center



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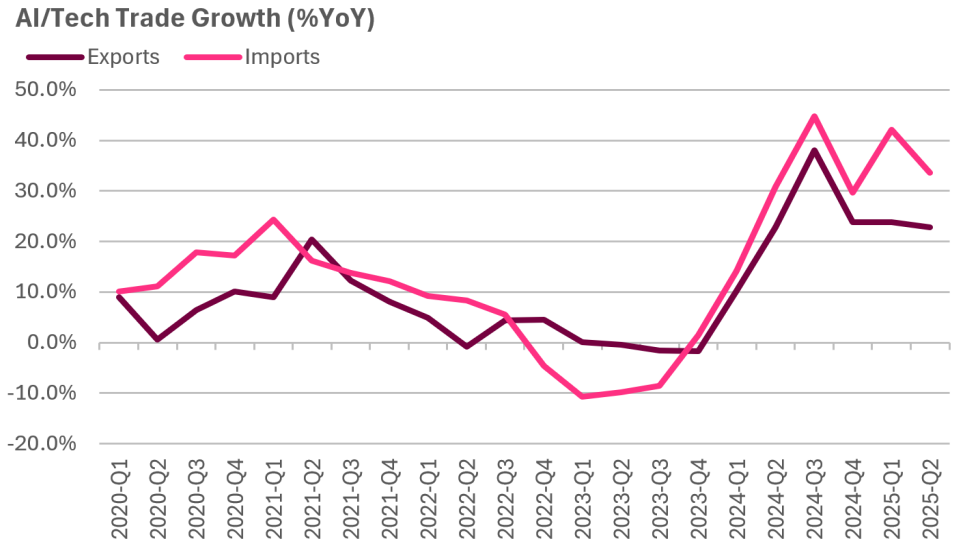
International Trade: AI is playing a larger role in US exports and imports

The AI economy is reshaping imports and exports.

- The AI economy is circular. The US sends chip design specs abroad, imports the physical chips, and puts them into data centers.
- The AI/tech trade is valuable. Imports reached USD 506.9 billion in Q2-2025 (this number is annualized). They **grew 33.6% YoY**, even after adjusting for inflation.
- Exports reached USD 251.6 billion, **up 22.8% YoY**.
- This industry is capturing a larger share of overall trade. It accounted for 12.6% of all US imports and 9.5% of all exports in Q2-2025.
- The US has a trade deficit in AI and tech, meaning imports exceed exports. The deficit is expanding, growing from USD 115.1 billion in Q2-2020 to USD 255.3 billion in Q2-2025.



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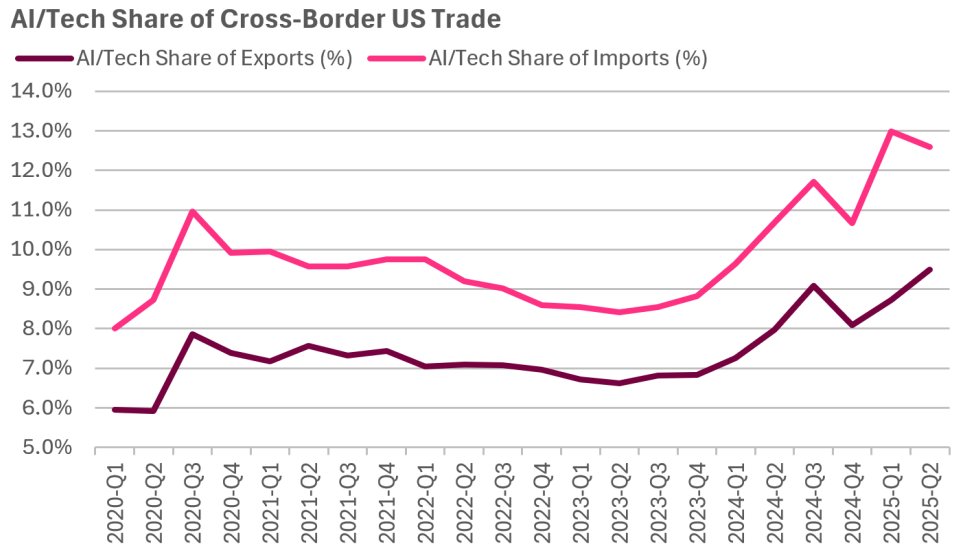

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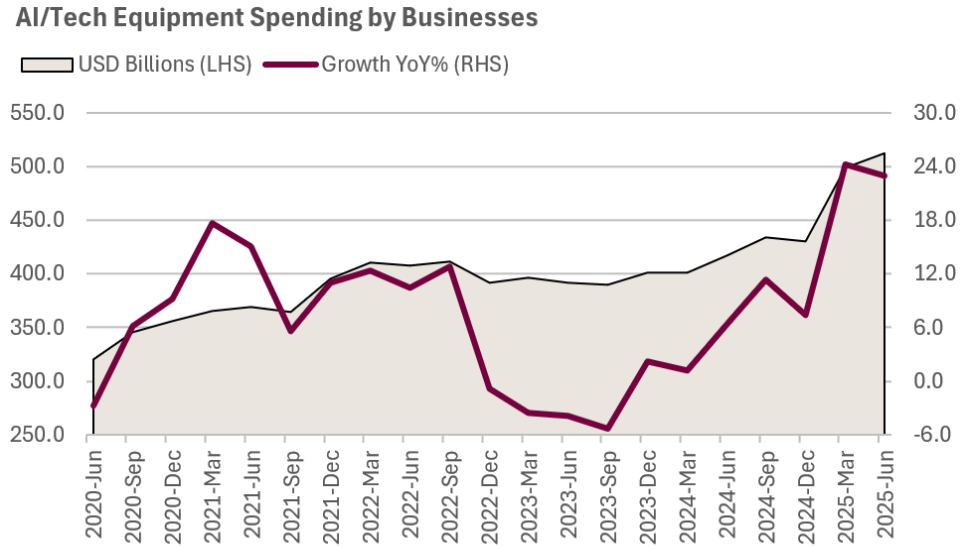
Capital Expenditures: Software and tech equipment investments are up

Capital expenditures on AI equipment and software have increased.

- Companies are investing heavily in AI/tech equipment and software.
- **Equipment** capital expenditures reached USD 512.2 billion in Q2-2025 (this number is annualized), **growing 23.0%** YoY after adjusting for inflation.
- At this point in the AI innovation cycle, equipment purchases are growing fastest for items needed in data centers and chip manufacturing plants.
- Later in the cycle, expenditures could begin to grow more quickly for advanced computers businesses will need to deploy AI models into corporate functions.
- Business **software** spending reached 868.3 billion (annualized), **up 12.2% YoY**.



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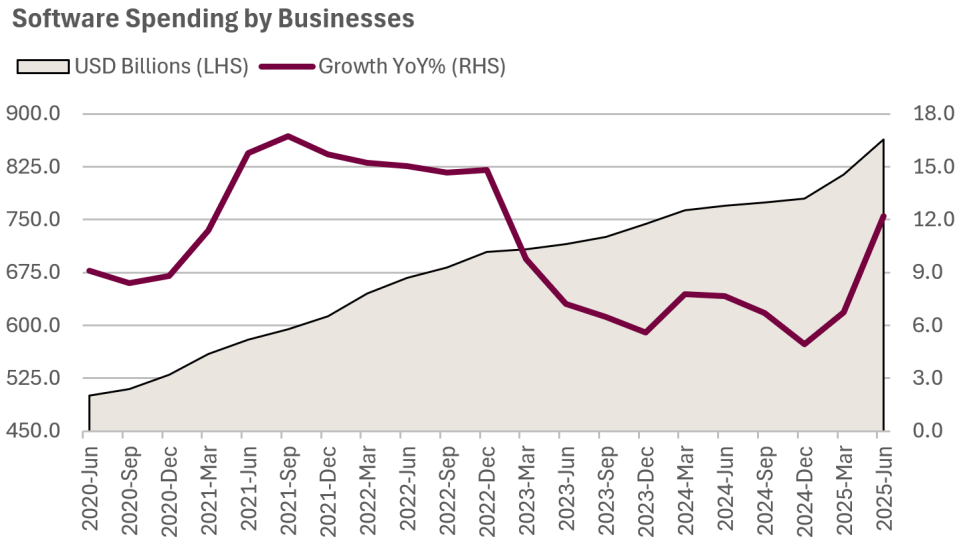

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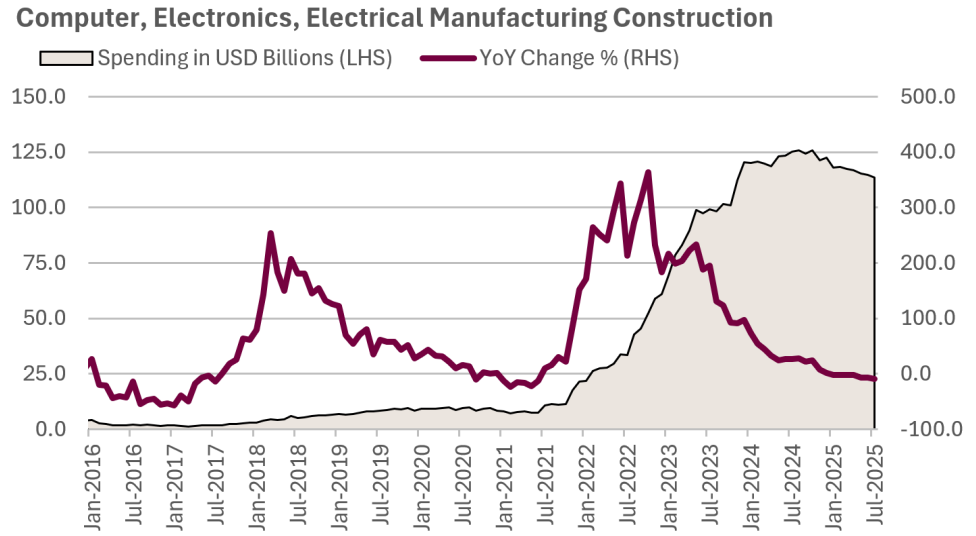
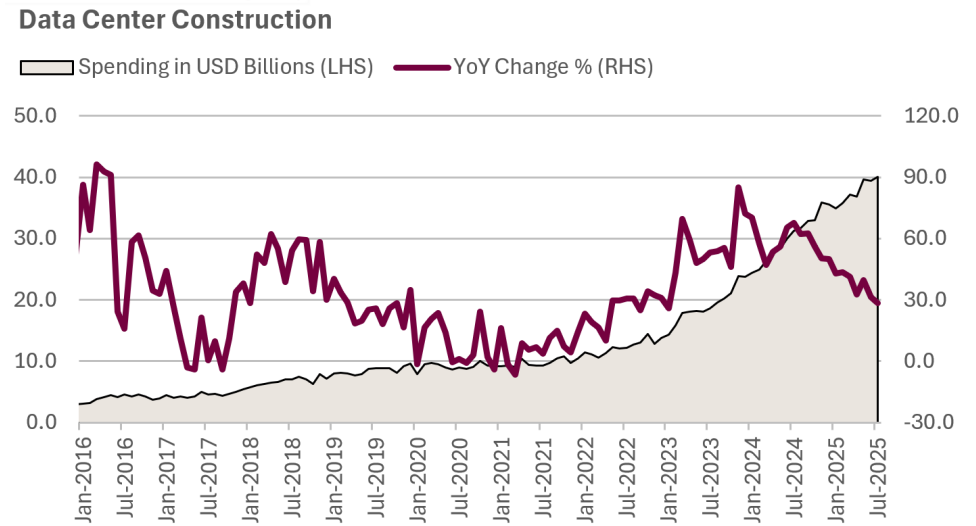
Capital Expenditures: Construction of data centers and manufacturing plants are up too

Infrastructure is under construction to support the AI ecosystem.

- AI demand is driving growth in two construction sectors: data centers and tech manufacturing plants.
- Construction on tech manufacturing plants increased 20x over the last decade. It averaged USD 5.7 billion per year in the 2010s. It's on pace to reach **USD 114.3 billion** in 2025. It's down slightly from 2024 but still elevated.
- Most of the growth has been in **chip manufacturing plants**. Federal incentives approved in 2021-2022 provided funding, accelerating growth.
- Data centers hold the chips, servers, and other tech equipment that make calculations for AI models.
- **Data center** construction is expanding quickly. It reached USD 41.2 billion in July 2025 (this number is annualized), **up 29.8% YoY**.



Source: US Census Bureau, Haver Analytics, The Hartford's Global Insights Center

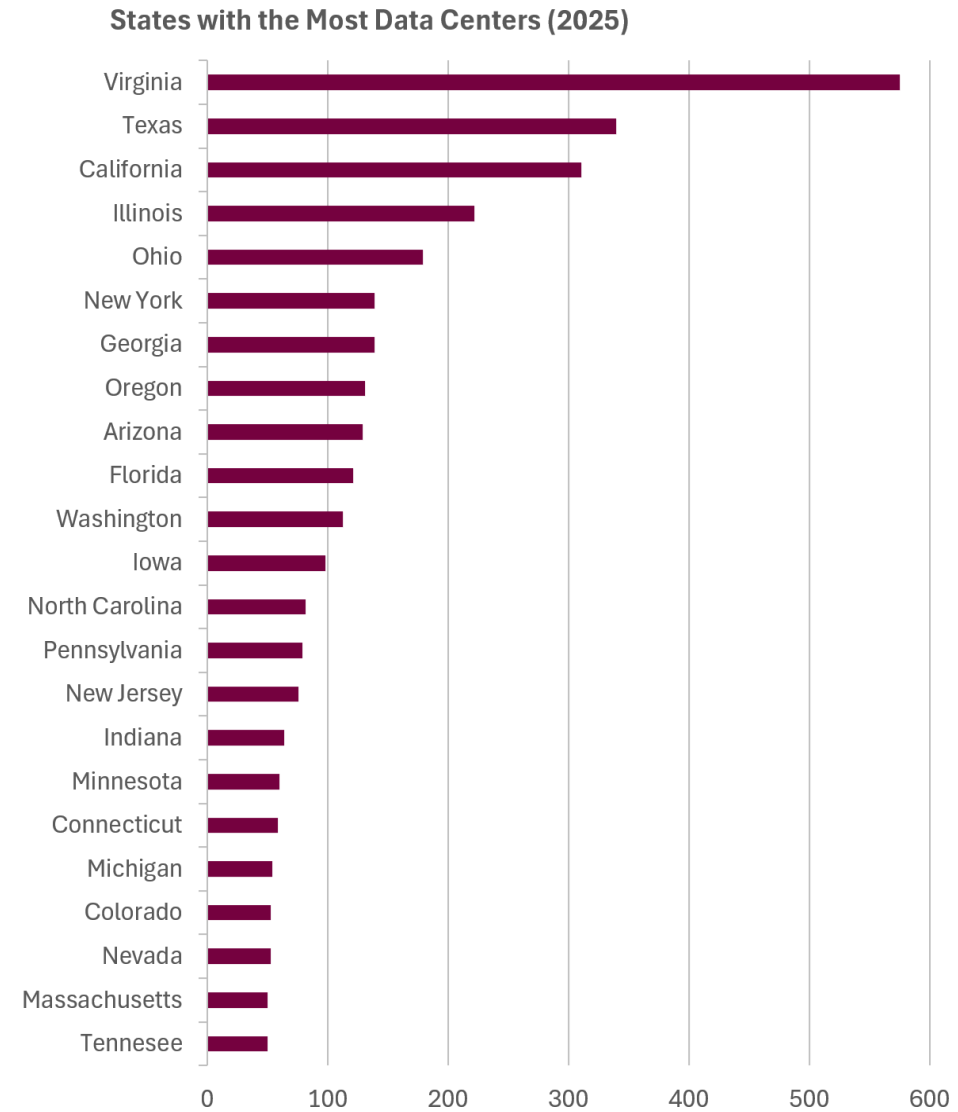


Source: US Census Bureau, Haver Analytics, The Hartford's Global Insights Center

Data Centers: Many states have data centers, but some are outliers

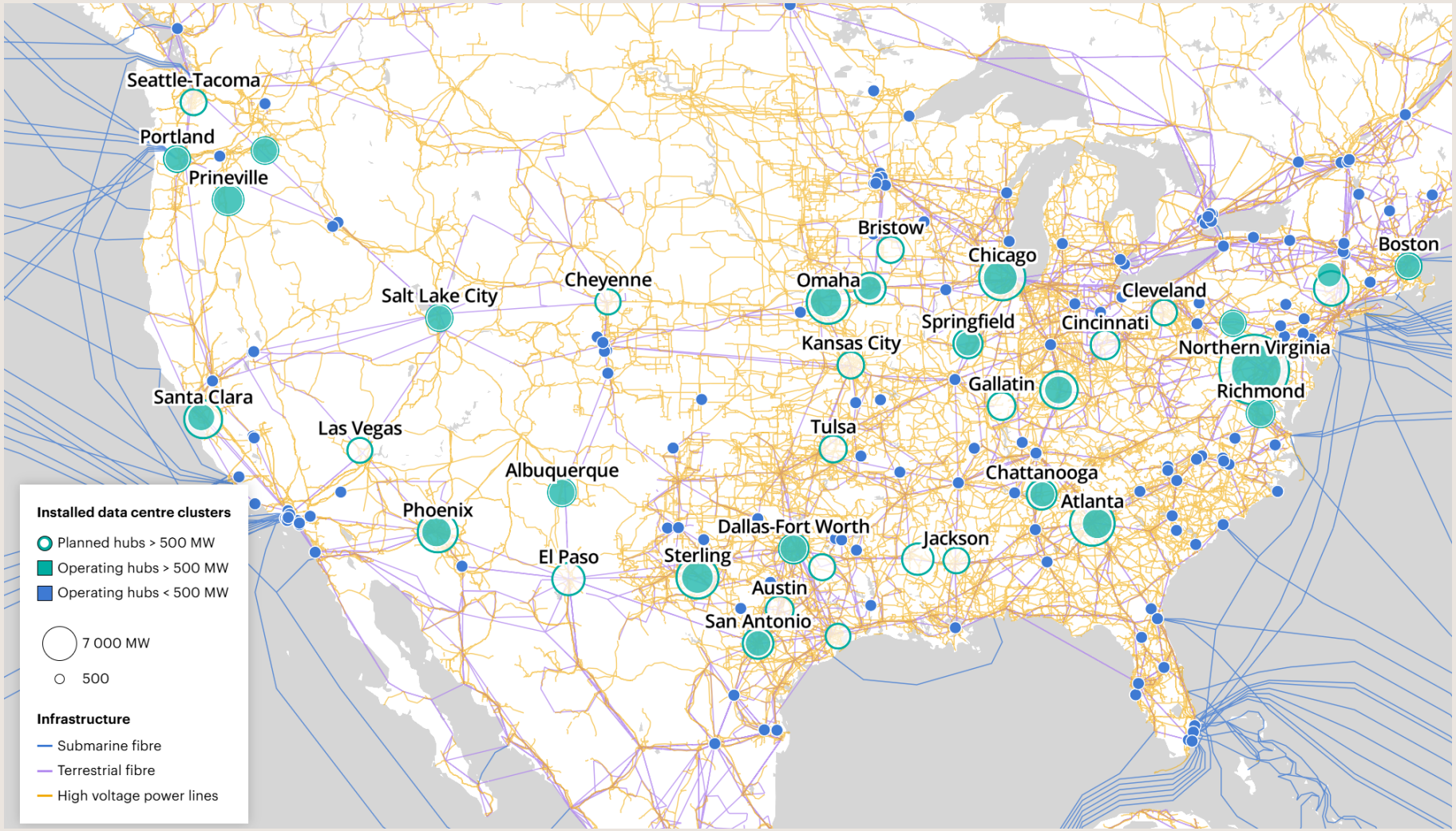
Virginia has the most data centers. There are 23 states with at least 50 data centers. Hubs matter for future growth.

- Data center availability varies by state.
- Virginia leads with 575 fully-built data centers. Virginia has some of the largest data centers by processing power, and some of the largest projects under construction.
- Texas, California, and Illinois each have 200+ fully-built data centers. These states are slated to build more.
- Georgia, Arizona, Nevada, and Ohio have more than 50. They are expected to see growth, with large projects under construction or consideration.
- Megaprojects have been proposed in Phoenix, Las Vegas, El Paso, Chicago, Ohama, and several other cities. If built, they could exceed the processing power of any data center currently in operation nationwide.



Source: RAND, The Hartford's Global Insights Center

Data Centers: Widespread across the US with select areas of focus



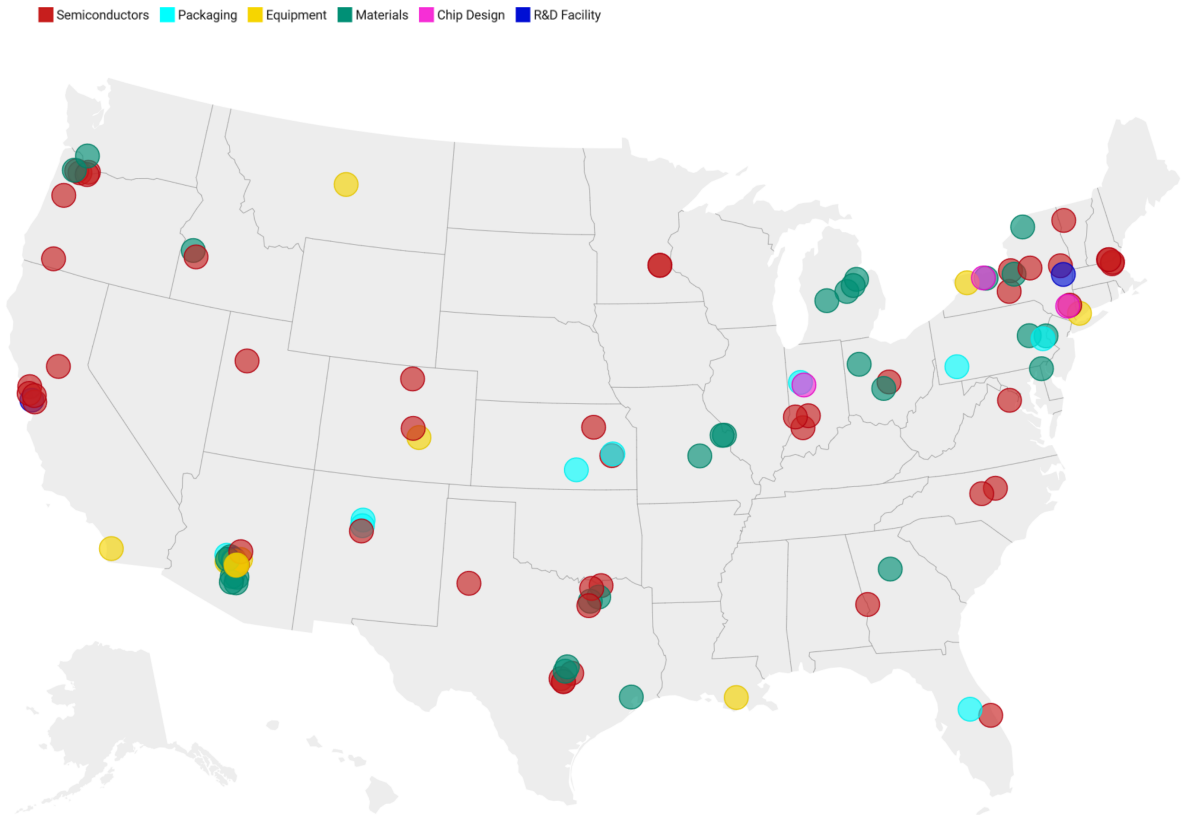
Source: International Energy Agency

Tech Manufacturing Plants: State and local impacts of AI infrastructure build-out

The tech manufacturing industry is expanding with hubs forming in several locations.

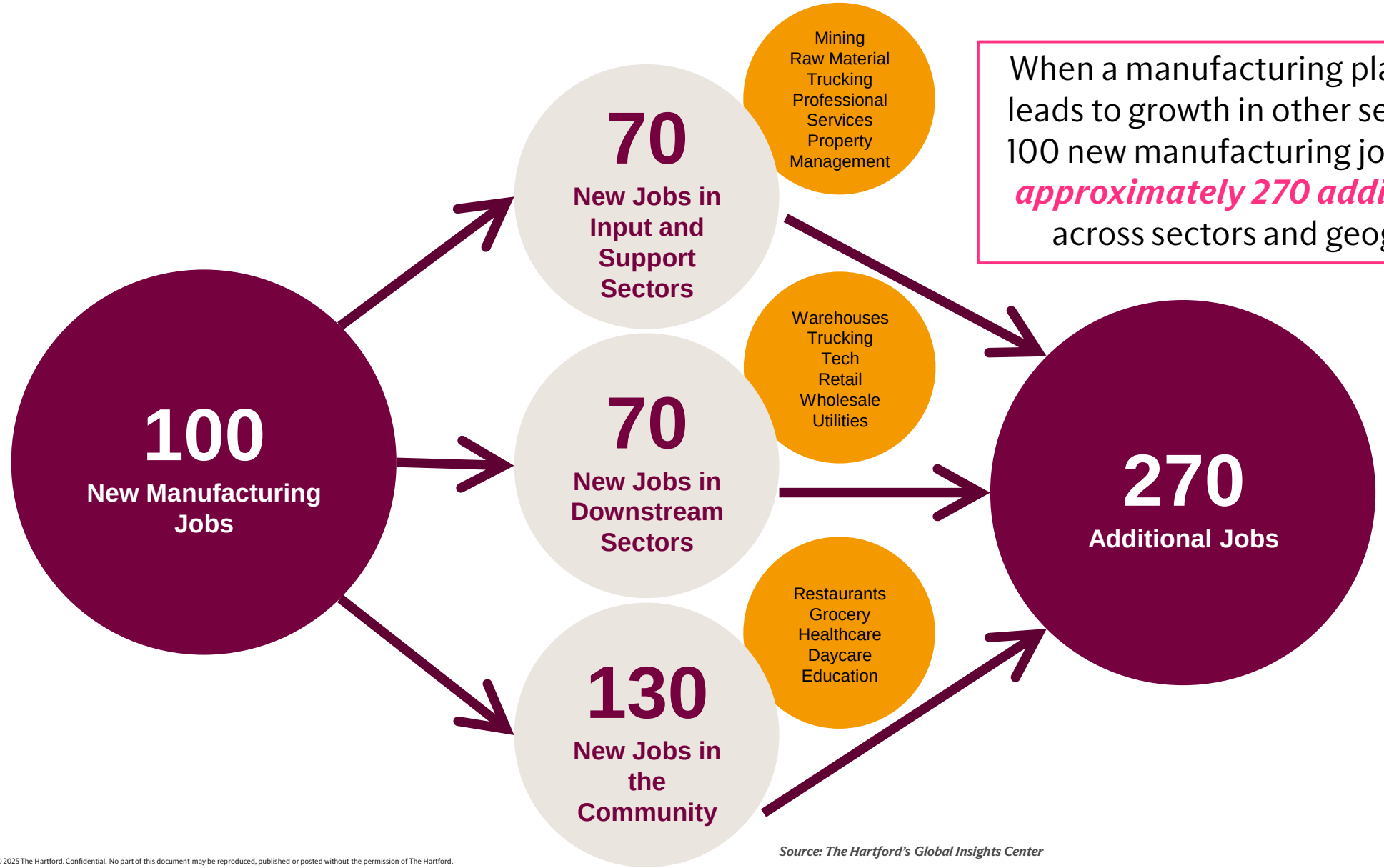
- New geopolitical strategies were set in 2021-2022 to support the US economy in the global AI race.
- The federal government created incentives to build tech manufacturing plants in the US. The most prominent was the CHIPS ACT, signed in mid-2022.
- Billions in incentives became available to fund construction on semiconductor manufacturing facilities and other types of plants.
- Dozens of projects have broken ground, including semiconductor plants, R&D facilities, chip design labs, and others.
- New tech manufacturing hubs are forming in Arizona, Texas, Upstate New York, Ohio, Indiana, Michigan, Oregon, and Silicon Valley.

Tech Manufacturing Construction Projects Announced 2022-2025



Source: Semiconductor Industry Association

Manufacturing Job Market Impacts: New plants feed into other sectors



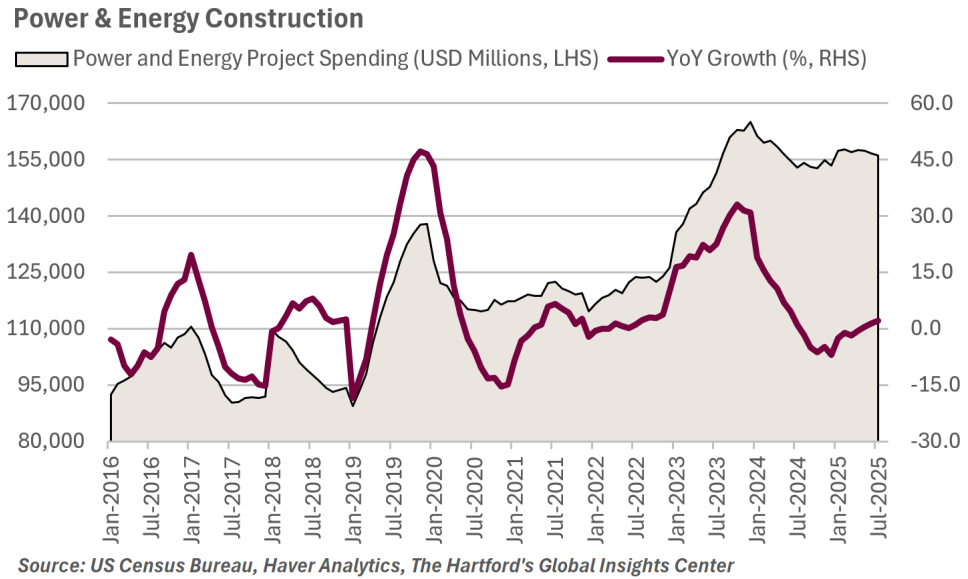
When a manufacturing plant opens, it leads to growth in other sectors. Every 100 new manufacturing jobs generate ***approximately 270 additional jobs*** across sectors and geographies.

Source: The Hartford's Global Insights Center

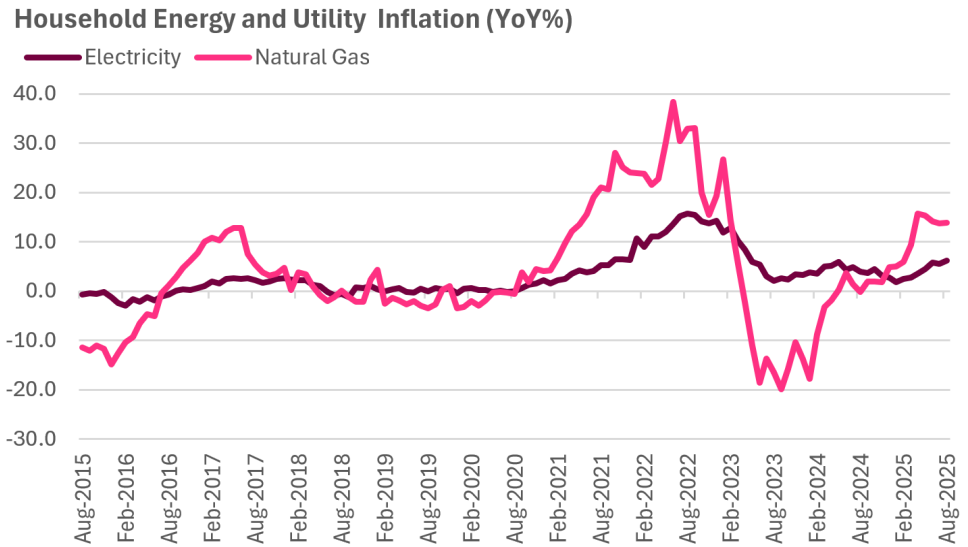
Capital Expenditures: Power plant investments lagging potential demand

AI data centers require a lot of energy, potentially pushing up energy inflation.

- Data centers represented **9.8% of US energy demand** in 2024, per the International Energy Agency (IEA).
- Data center power needs will likely grow, potentially doubling by 2030 according to IEA forecasts.
- US power and energy construction has increased over the last decade, but it's likely behind the pace needed to match demand.
- High demand without enough supply has caused household energy inflation to increase.
- Electricity inflation was **up 6.2%** as of August 2025. Household natural gas was **up 13.8%.**
- These are the highest inflation rates in a decade, outside the supply chain disruptions of 2021-2022.



Source: US Census Bureau, Haver Analytics, The Hartford's Global Insights Center



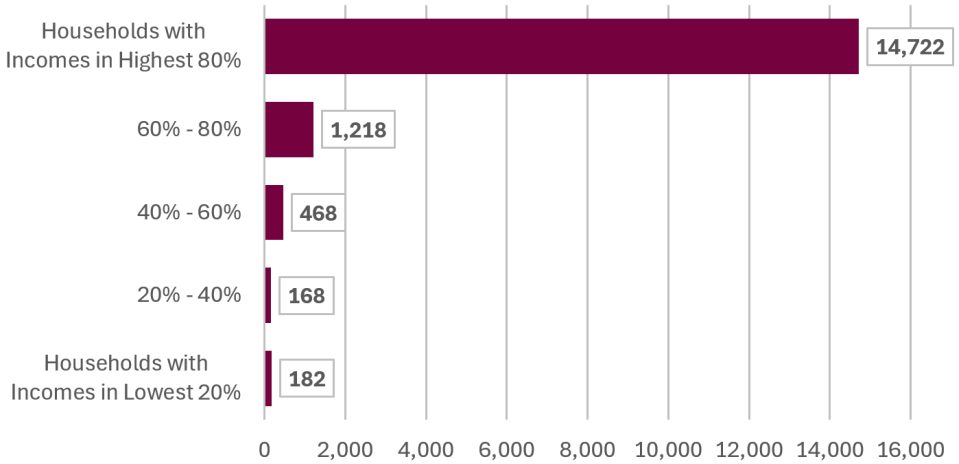
Source: US Bureau of Labor Statistics, Haver Analytics, The Hartford's Global Insights Center

Consumer Spending: AI impact on markets likely affecting spending capacity for some

AI supports consumer spending through the wealth effect.

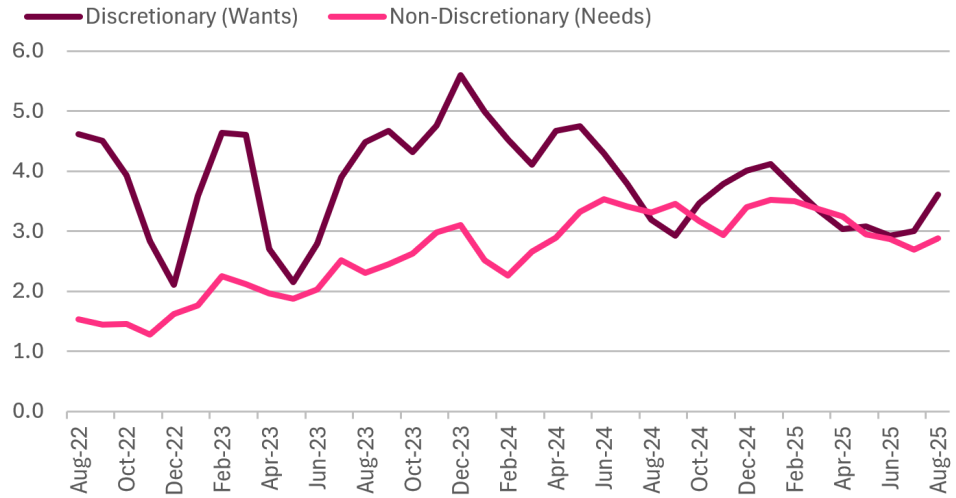
- AI has likely propelled the stock market. The largest tech companies, which are heavily investing in AI, have grown faster than the rest of the market.
- When the stock market goes up, some people spend more, particularly people who own stocks. They get closer to their savings goals, so they feel more confident. This is known as “the wealth effect.”
- Since AI became widely available, the top 20% income bracket gained USD 14.7 trillion in equity assets and likely spent an extra USD 736 billion in the economy.
- The remaining 80% gained a combined USD 2.0 trillion and likely spent an extra USD 100 billion.
- So, the wealth effect has likely propped up consumer spending, especially for discretionary purchases (wants) which are outpacing non-discretionary (needs).

Stock Market Gains Since AI Became Widely Available by Income Bracket (USD Billions, Q4-2022 to Q2-2025)



Source: Federal Reserve Board, The Hartford's Global Insighs Center

Consumption Growth (YoY% Adjusted for Inflation)

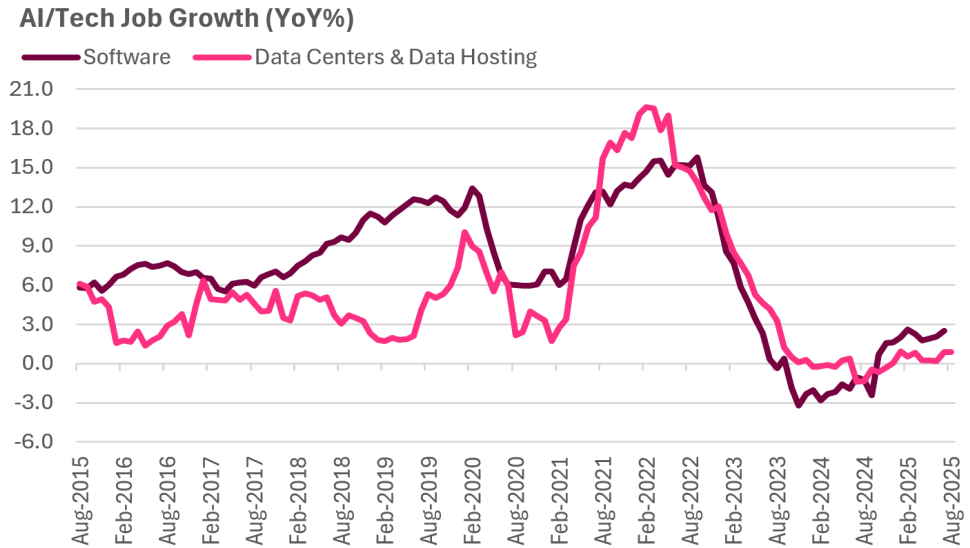


Source: Bureau of Economic Analysis, Haver Analytics, The Hartford's Global Insights Center

Labor Market: AI is supporting growth in select industries, while reducing in others

AI is likely creating jobs in some roles while it disrupts other positions.

- Tech jobs declined in 2023-2024. The industry changed strategies, focusing less on growth and more on profit, reducing headcounts.
- Now some tech segments are hiring again as they onboard for AI R&D, AI sales, and data center operations.
- AI is also creating jobs in other industries, like construction. Data centers and tech manufacturing plants are underway in hubs nationwide, including Arizona.
- TSMC and Intel began building semiconductor fabs in Arizona in 2021. Since then, construction employment in the state has increased by about 50,000 jobs. Similar growth can be seen in other states as well.



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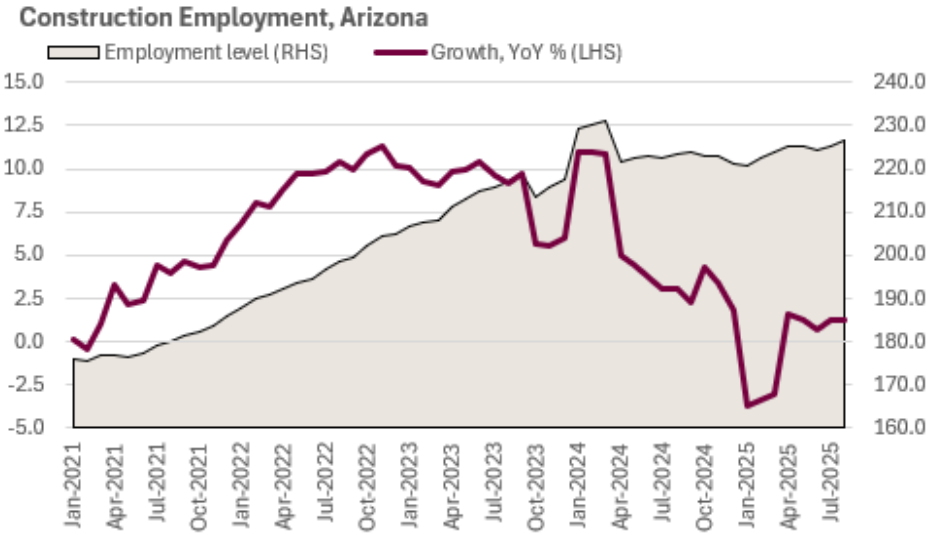
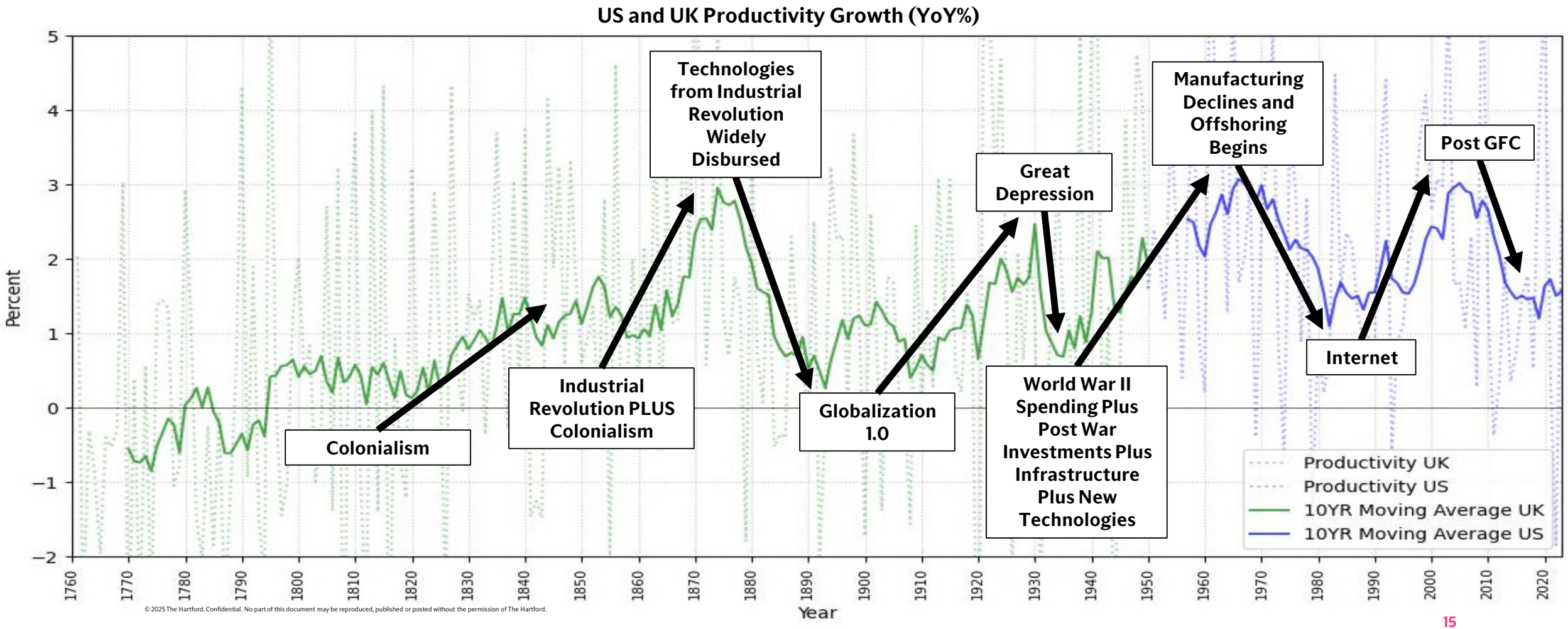


Source: US Bureau of Labor Statistics, Haver Analytics

Productivity: AI likely to play a key role in productivity enhancements

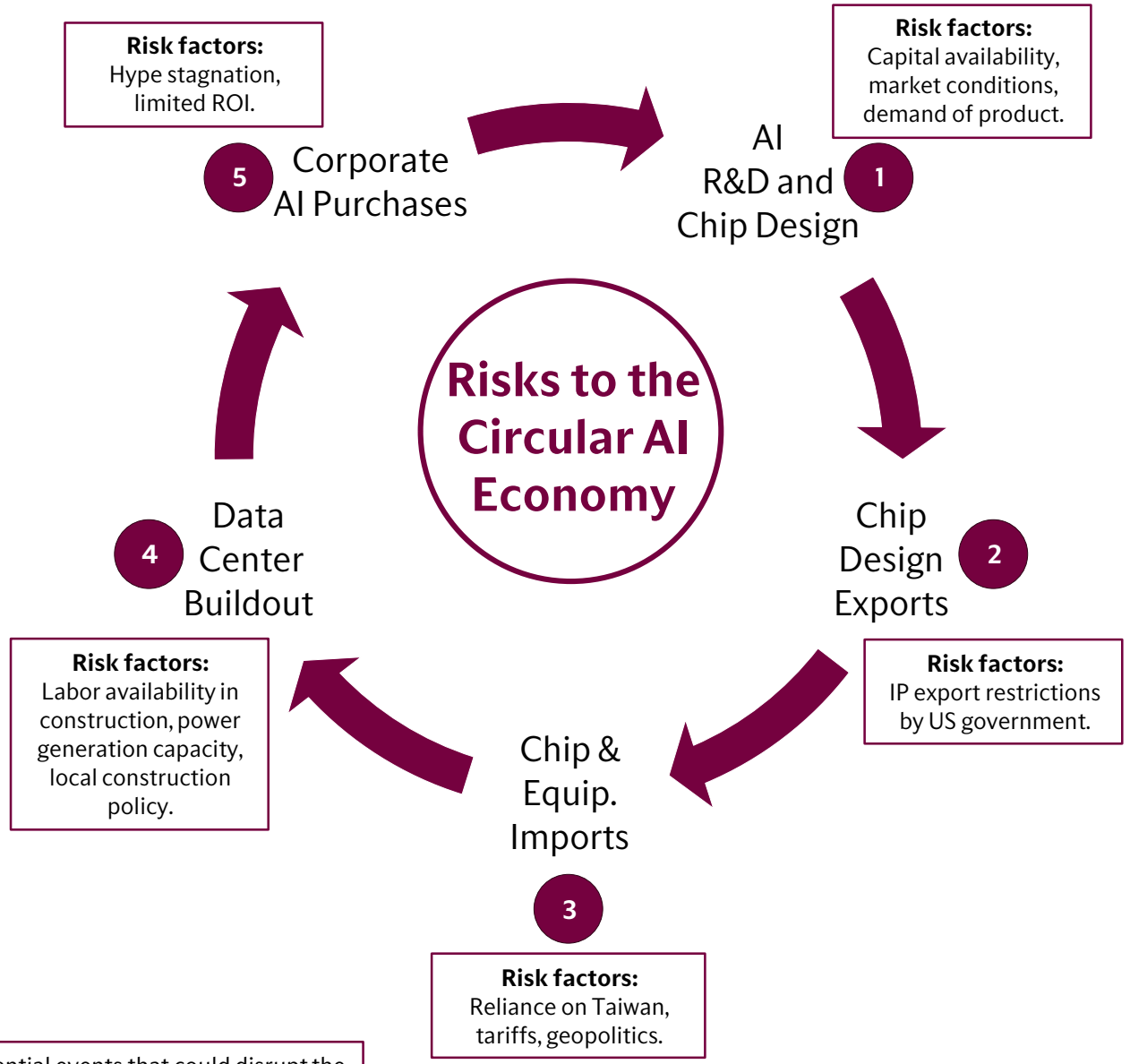
The economy goes through productivity cycles. New technologies can rewire industries and markets, making the economy more efficient and expanding its reach. Productivity cycles also cause disruption. The past 300 years have seen several cycles; each lasted for decades. AI may be transformative enough to start a new cycle.



Future of AI: Short term risks to consider

AI has become a larger factor in economic growth. If it goes through a correction, it could bring challenges.

- AI and tech accounted for a quarter of GDP growth in Q2-2025.
- Steady economic growth is expected in 2026, but if the AI sector corrects, it could detract from the economy.
- Risk factors exist at each stage of the AI circle. If any stage breaks down, the entire AI ecosystem could fall into a correction.
- While the overall US economy may grow through an AI correction, it would result in slower growth, with pain felt in some sectors and markets.
- A recession can't be ruled out if AI corrects severely.

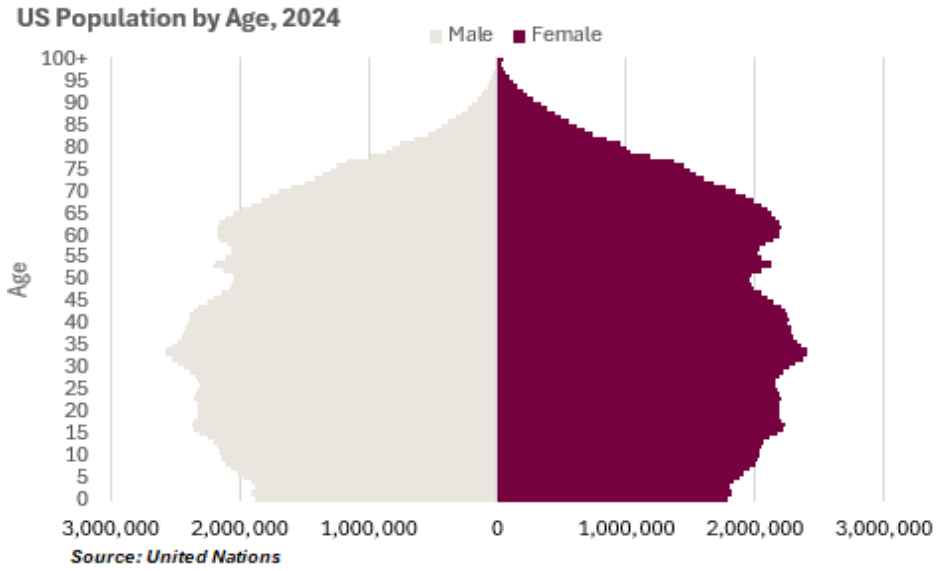


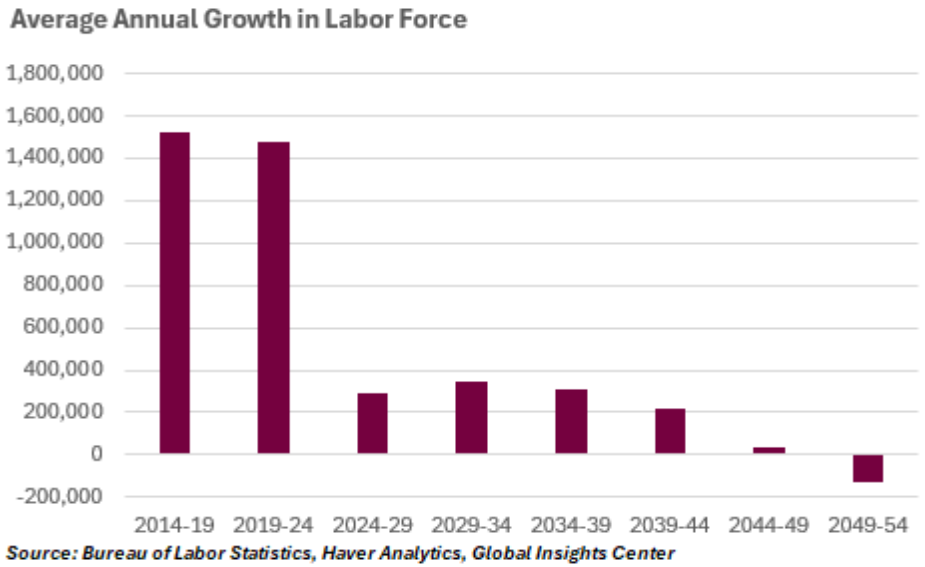
Risk factors indicate potential events that could disrupt the AI cycle at each stage, affecting the overall process.

Future of AI: Long term opportunities may offset demographic challenges

US labor force growth is slowing dramatically. AI might fill the gap.

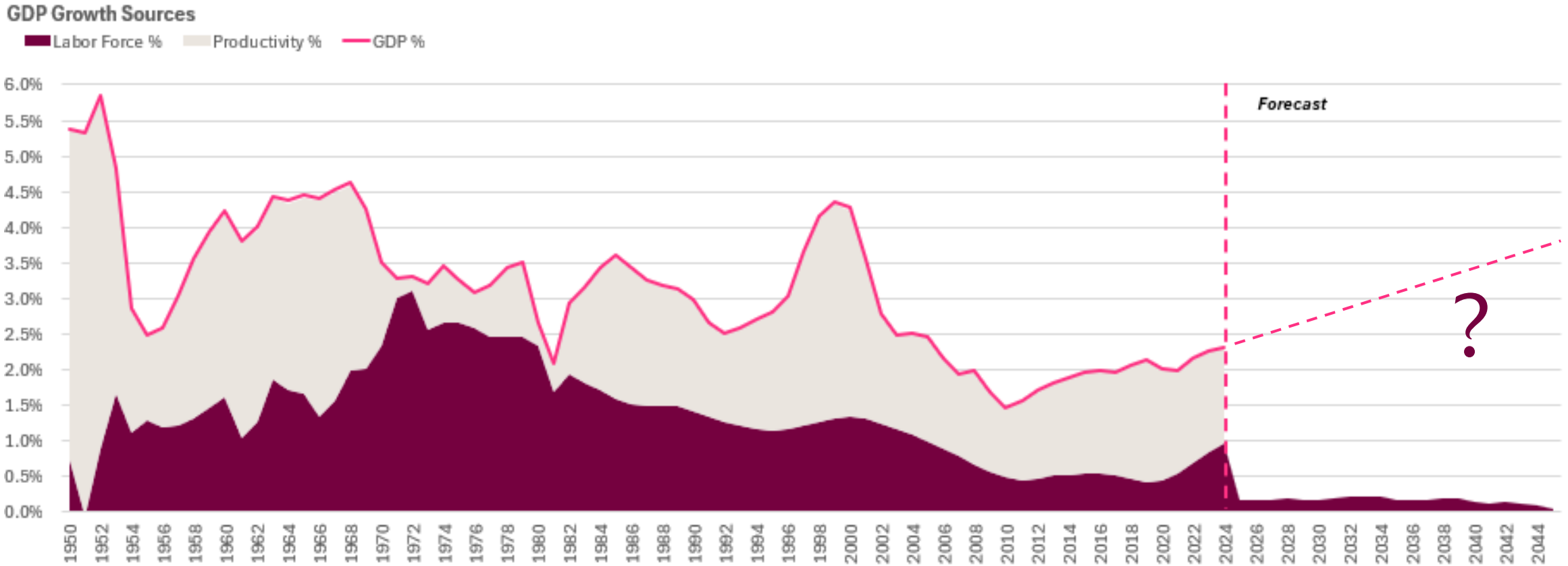
- The US is undergoing a demographic transition, as retirements increase and lower birth rates reduce the future supply of new workers.
- Labor force growth will slow over the coming decades, potentially limiting economic growth.
- AI provides the possibility of filling the gap, boosting productivity to help sustain economic growth.
- Though the AI transition may be disruptive. Even if successful, it may reshape the economy in challenging ways by eliminating some jobs, reallocating resources, and creating geopolitical frictions.





GDP: AI may offset population declines and help maintain economic growth

The labor force is expected to grow slowly in the coming decades. Slow workforce growth can put a "speed limit" on the economy; when it's hard to hire, it's hard to grow. AI has the potential to make the workforce more efficient and raise productivity. Can an AI productivity boost offset the upcoming population speed limit?



Source: Congressional Budget Office, The Hartford's Global Insights Center

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