



# Twists & Turns: The 2025 Inforum Economic Outlook

RONALD HORST

INFORUM

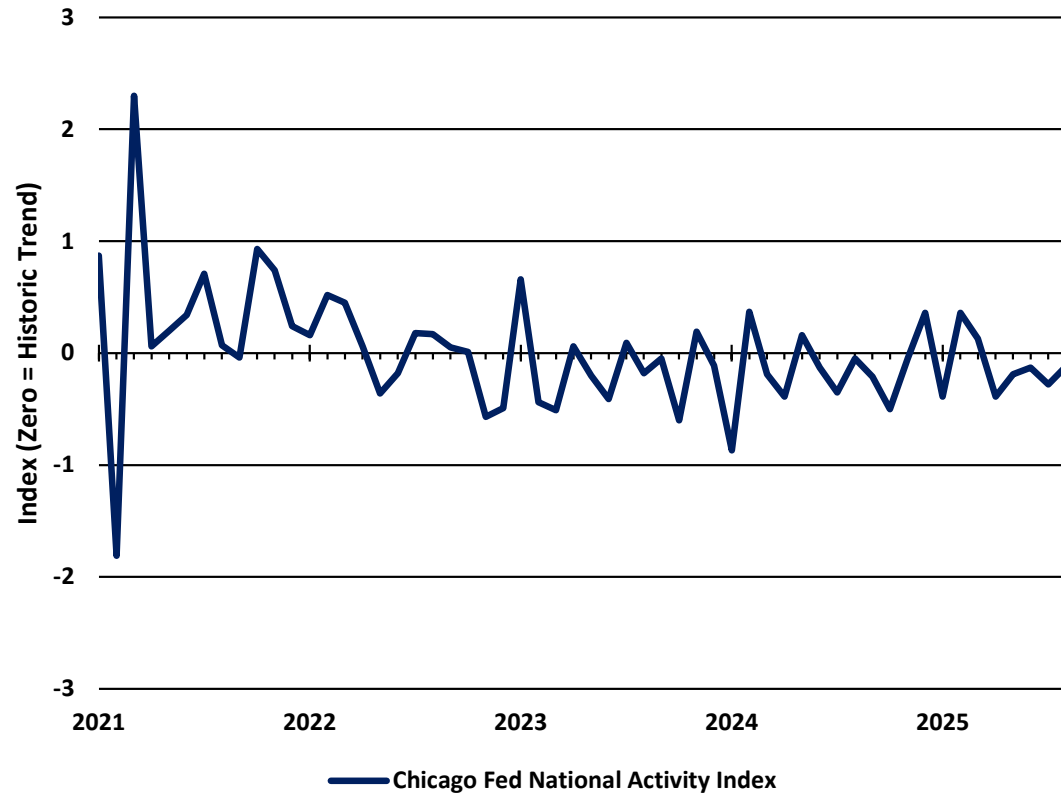
SEPTEMBER 25, 2025

# Outline

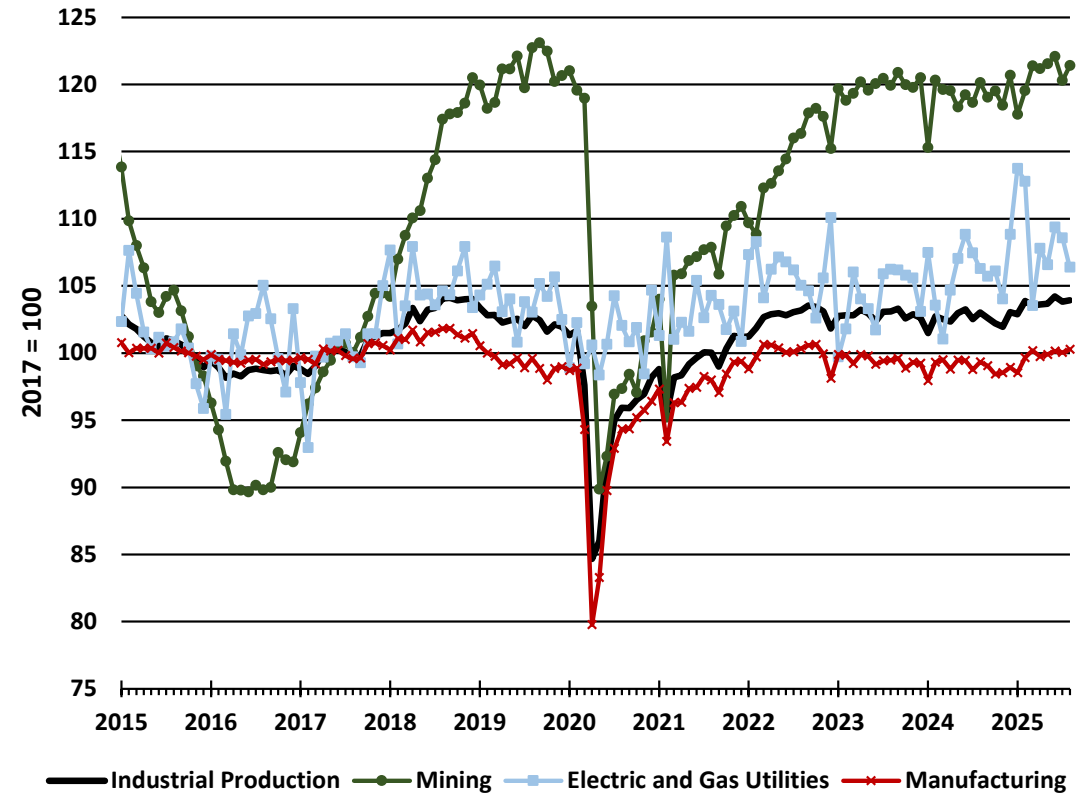
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- Inforum Economic Outlook
  - Recent history and current environment: Select topics
  - Consensus macroeconomic views: Recession, Inflation, Economic Growth
  - International Outlook
  - Long-Run U.S. Outlook
  - Additional material in packets and online
  
- Other presentations today
  - Economic and Fiscal Effects of New Tariffs
  - Economic and Fiscal Effects of Deportations
  - Tax Evasion and Income Distribution
  - Effects of Policy and Other Developments in Construction Markets

# How Is the Economy Doing?

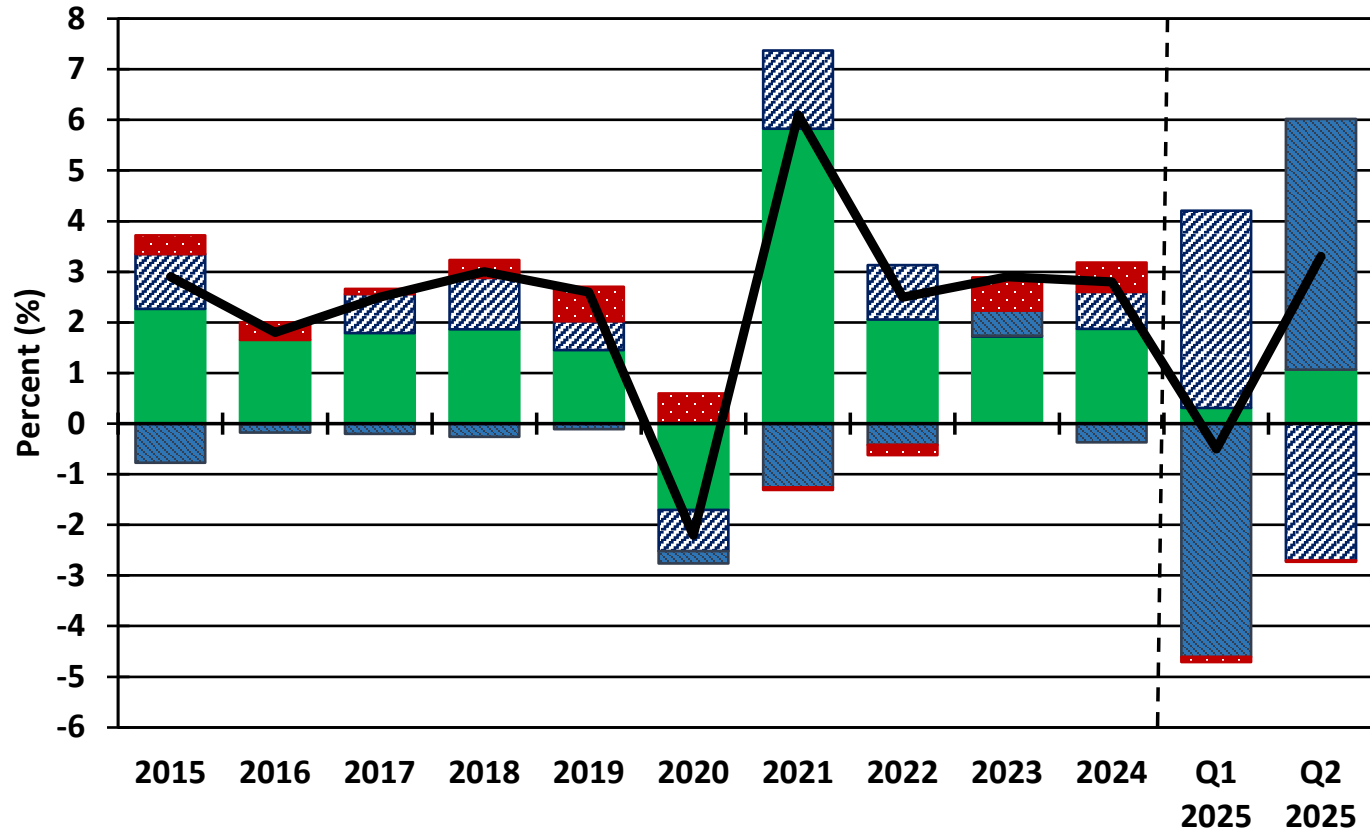


Chicago Fed National Activity Index: Slightly below trend, where zero indicates that the economy is expanding at its historical trend rate of growth.



What about goods production?  
 Manufacturing +0.9% Y/Y in August,  $\approx$  its 2017 level.  
 Mining and utilities are higher.

# Overall: Weak and Volatile H1 2025

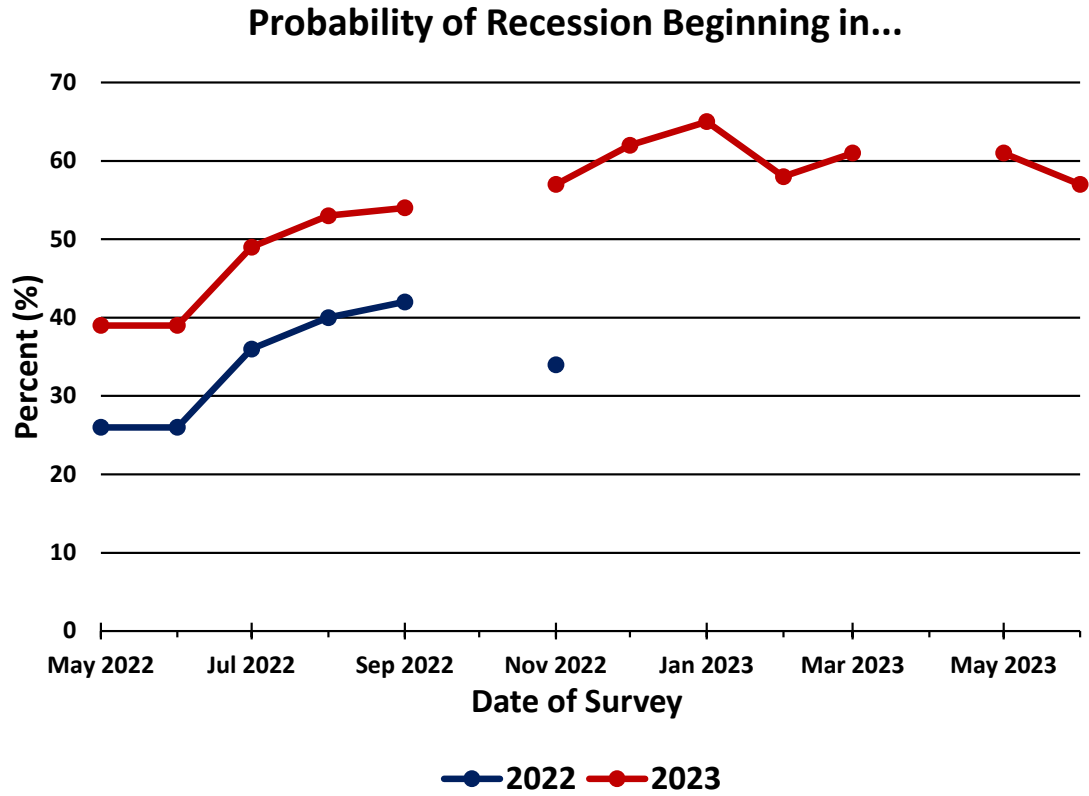


■ Government Consumption & Investment    ▨ Net Exports  
▨ Gross Private Domestic Investment    ■ Personal Consumption Expenditures  
— Gross Domestic Product

Contributions to Growth	2024	Q1 2025	Q2 2025
Real GDP Growth	2.8	-0.5	3.3
PCE	1.9	0.3	1.1
Private Investment	0.7	3.9	-2.7
Government	0.6	-0.1	-0.0
Net Exports	-0.4	-4.6	5.0

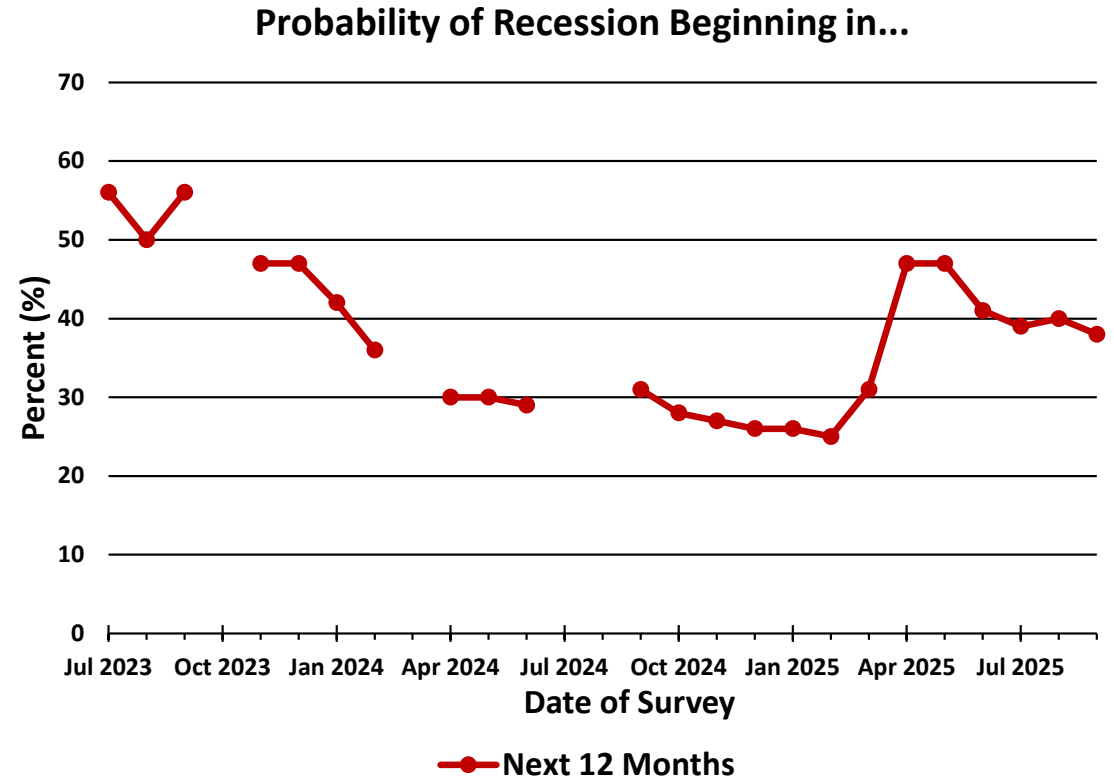
1.4% SAAR GDP Growth in H1 2025.

# How Do Forecasters Feel?



Recession Outlook for current year:

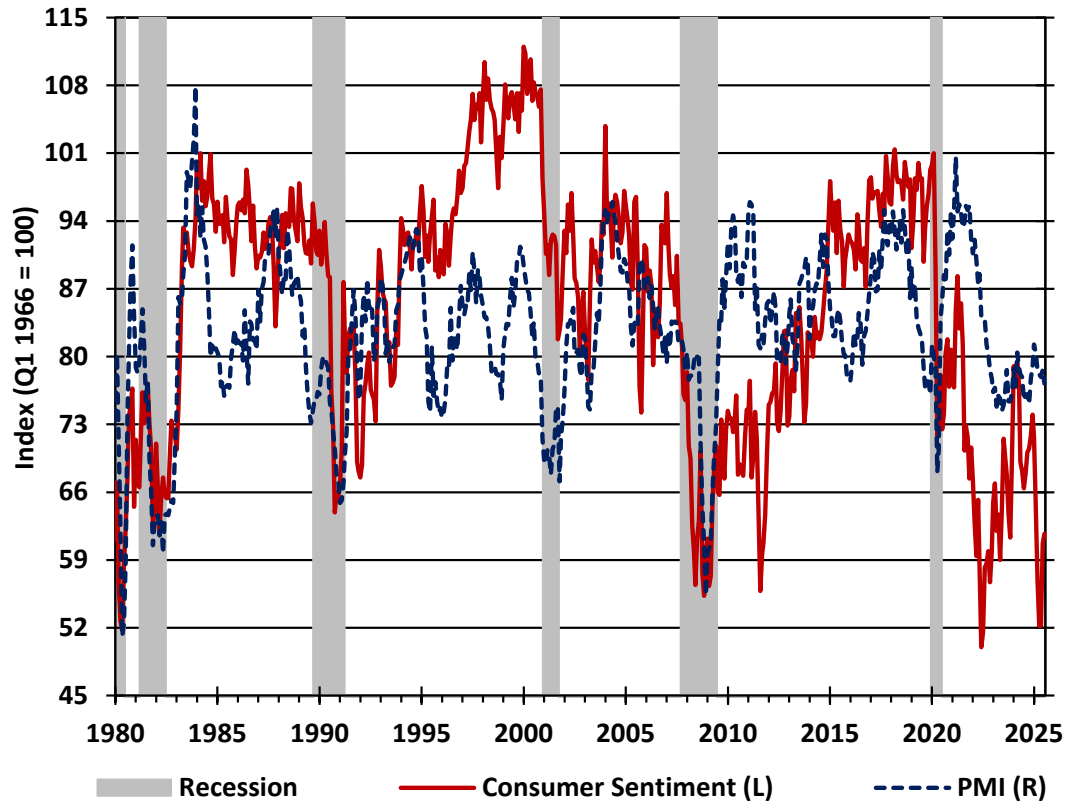
- Consensus May 2022: 26%
- Consensus Jan 2023: 65%



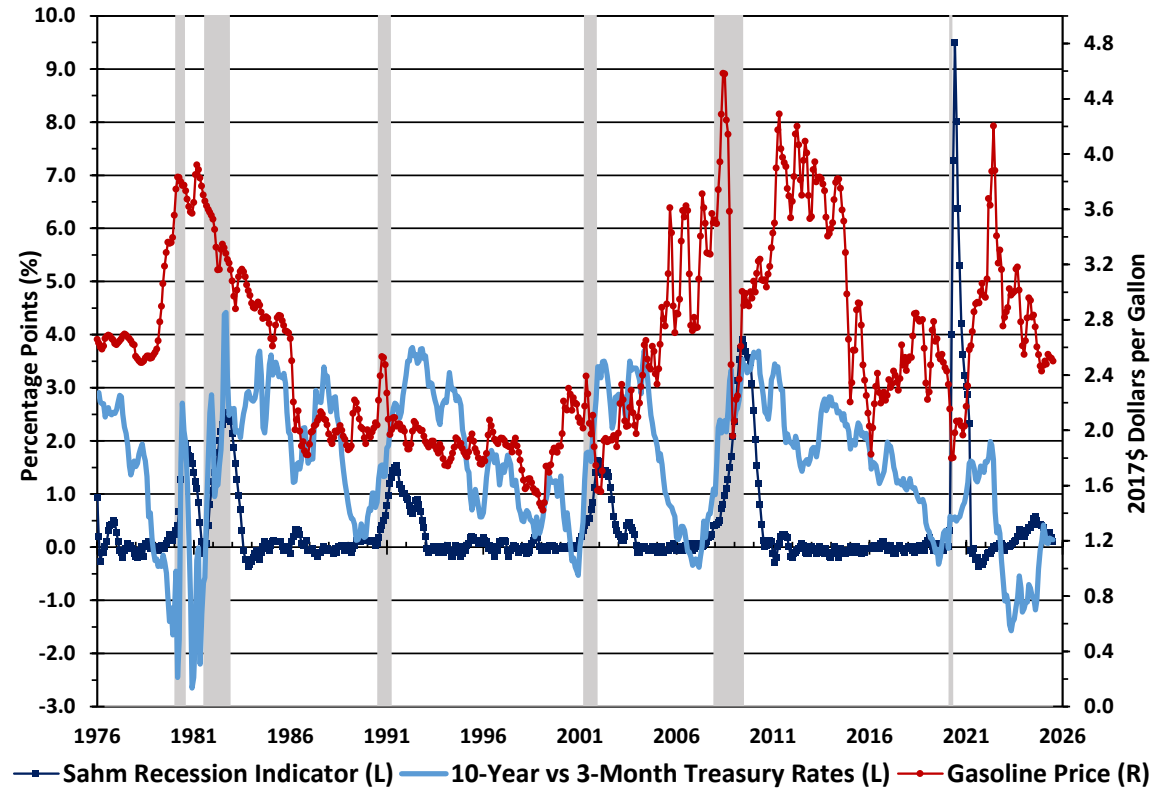
Recession Outlook for next 12 months:

- Consensus Feb 2025: 25%
- Consensus Apr 2025: 47%
- Consensus Sep 2025: 38%

# How Do Others Feel? Why?



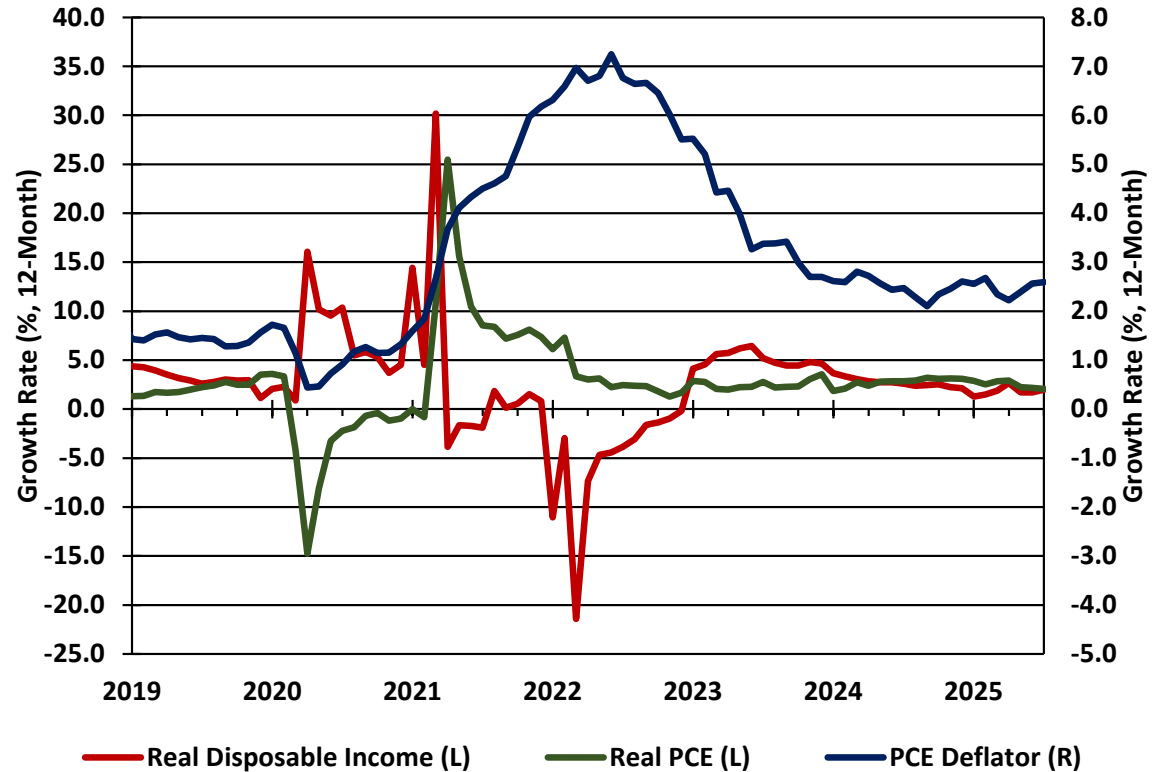
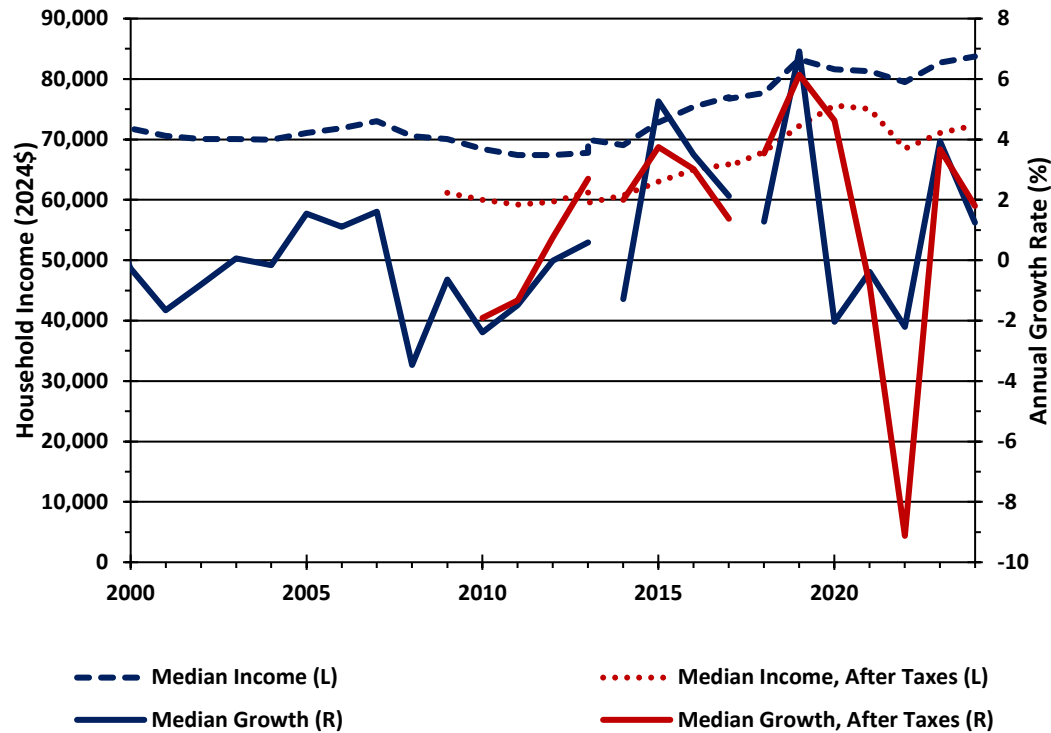
- Consumers:  
Historically low sentiment in 2022 & 2025
- Businesses:  
Purchasing Managers Index in Negative Territory



Recession Indicators ⇒ No reason to worry?

- Interest Rates: no longer inverted.
- Sahm's Recession Indicator: Falling.
- Gasoline Prices: Moderate.

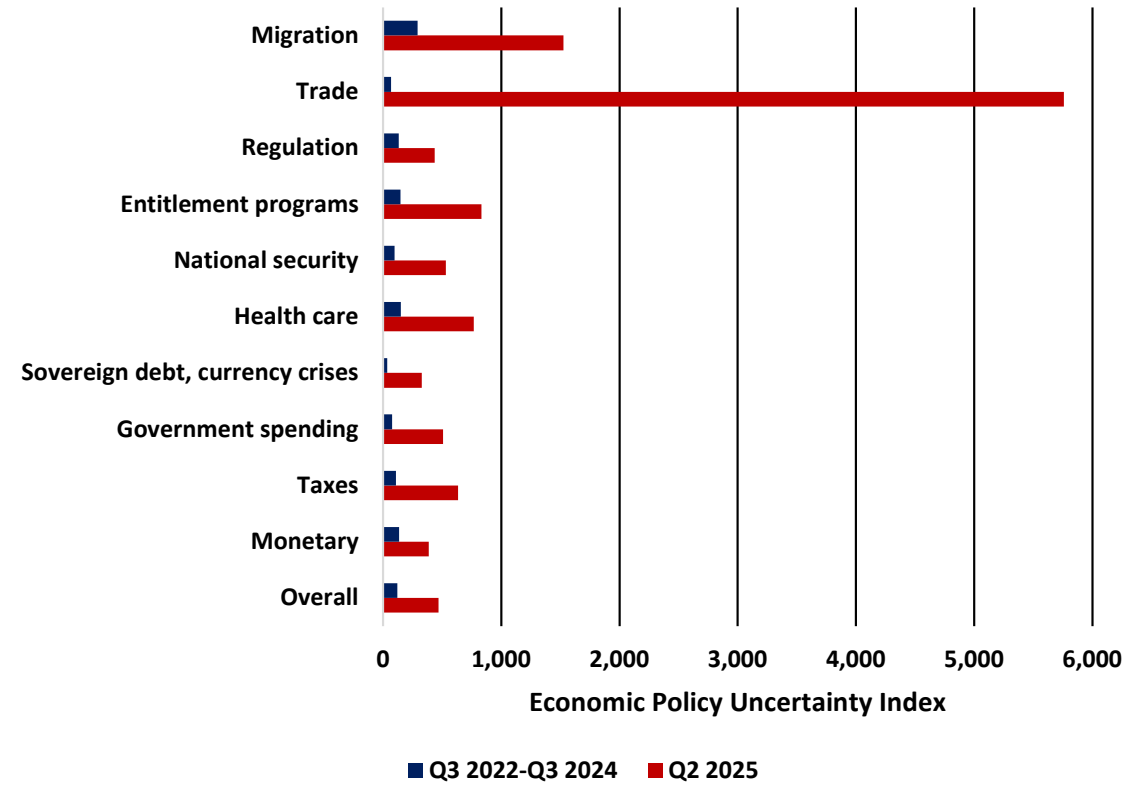
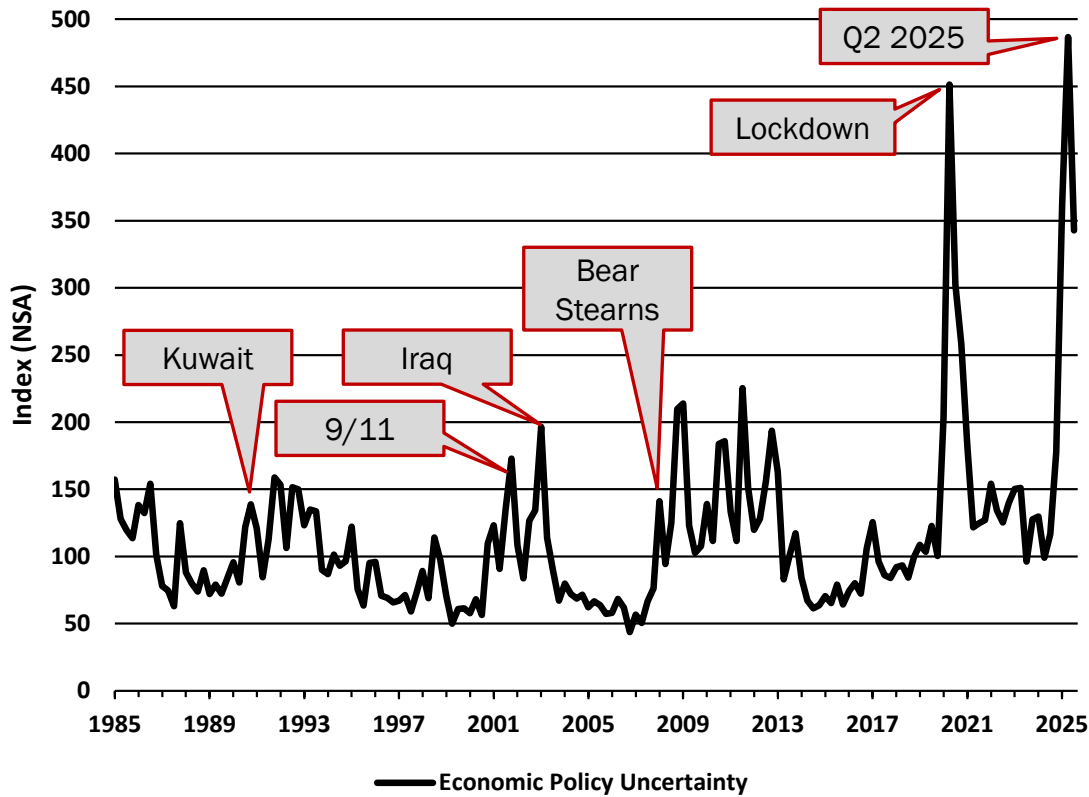
# What Makes Consumers Unhappy?



- In 2022, falling real income eroded sentiment.
- Real after-tax median household income fell 9.1%.

- In 2022, high inflation and removal of pandemic transfers led to declining personal income.
- In July 2025, income and spending  $\approx 2.0\%$  Y/Y.

# Enormous Policy Uncertainty in 2025



Two major policy disruptions within five years:

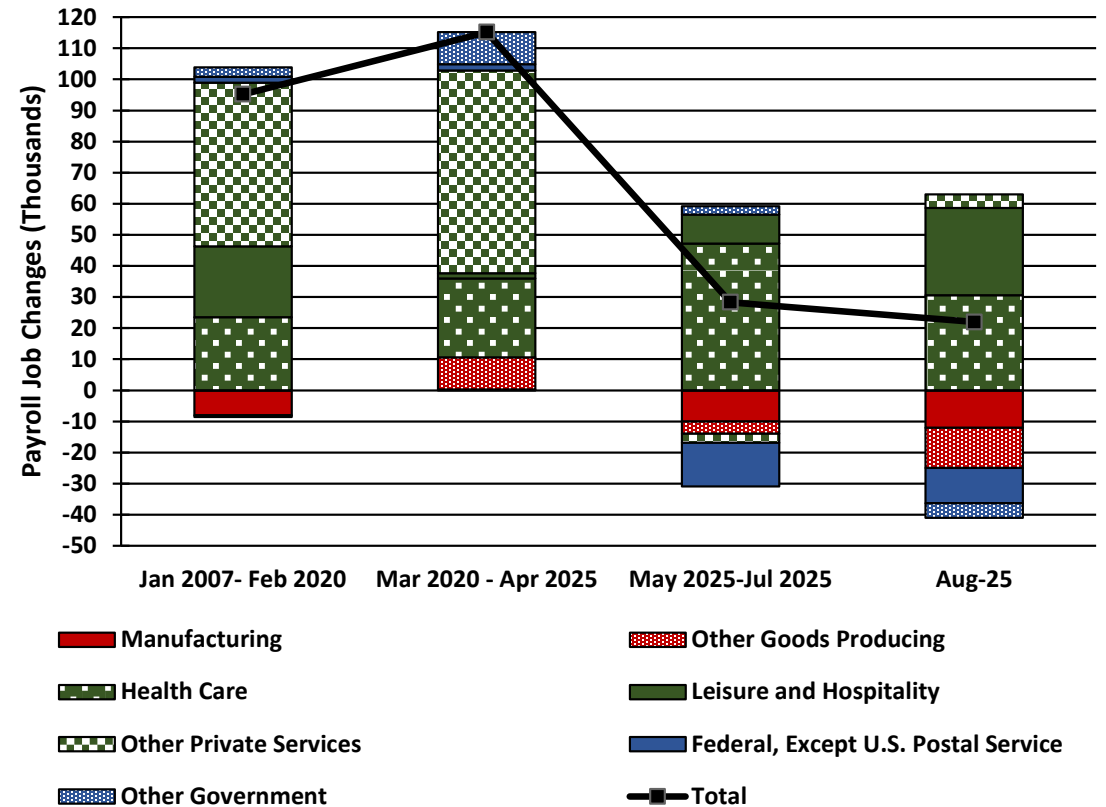
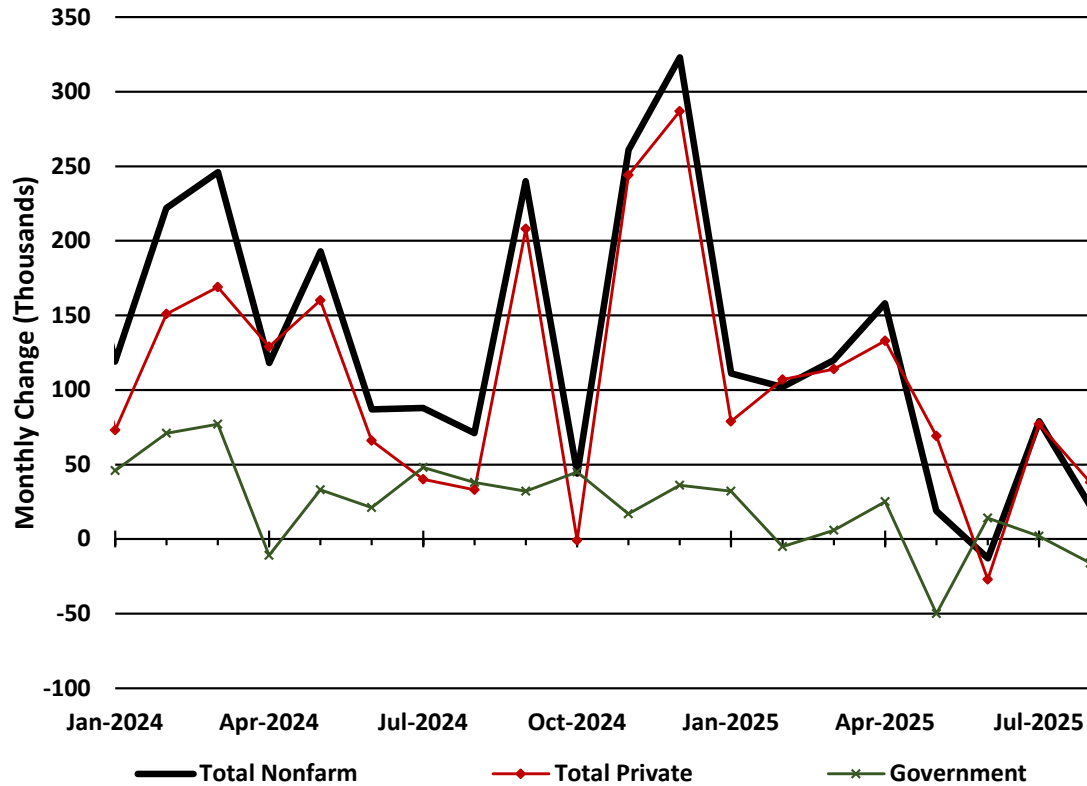
- Pandemic Response in 2020
- Various Federal Disruptions in 2025

• Post-Pandemic era: Moderate policy uncertainty.

• Q2 2025: Trade, Immigration, other.

Implications for economic activity?

# Payroll Job Slowdown in 2025?



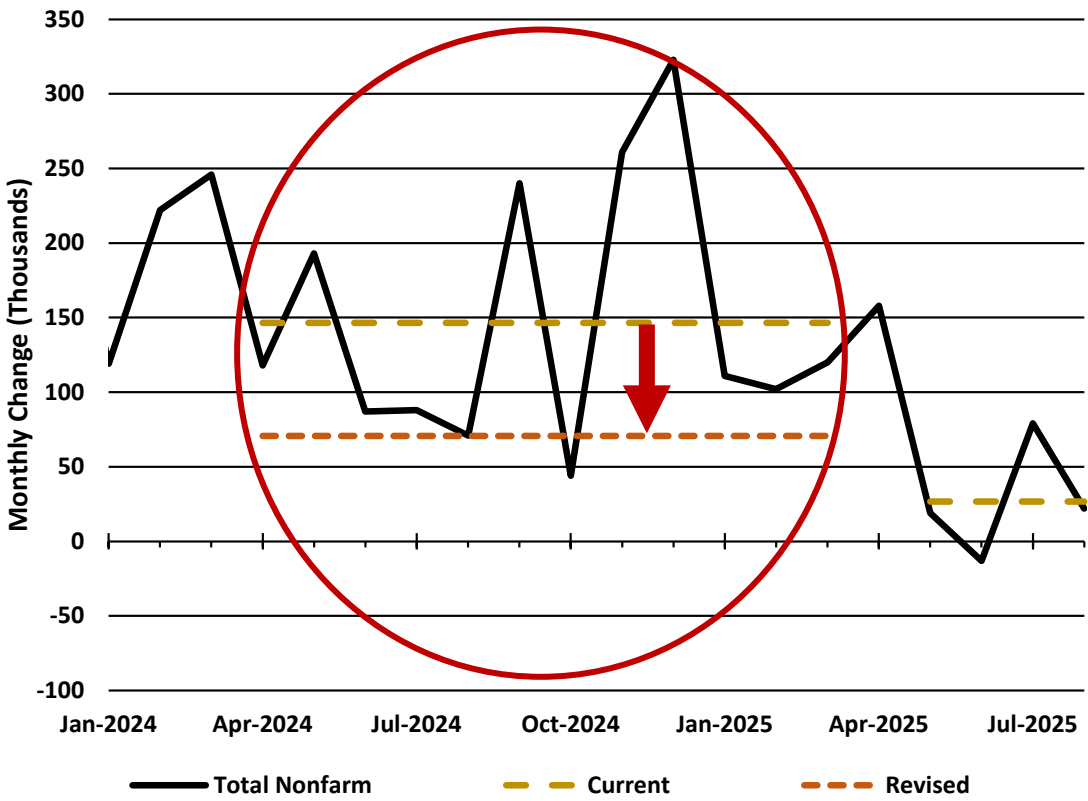
An apparent sharp slowdown in payroll job creation:

- Jan 2024–April 2025 : 156,000 per month
- May 2025–Aug 2025: 27,000 per month

Average monthly change in payroll jobs:

- Goods Productions and Federal jobs biggest losers since May.
- Only Private Services jobs rose in August 2025.

# Yes, but Fewer Jobs Gained in 2024



Industry	Benchmark Revision (Thousands)	Benchmark Revision (Percent)	Average Monthly Revision (Thousands)
Total nonfarm	-911.0	-0.6	-75.9
Total private	-880.0	-0.7	-73.3
Mining and logging	-4.0	-0.7	-0.3
Construction	-29.0	-0.4	-2.4
Manufacturing	-95.0	-0.8	-7.9
Trade, transportation, utilities	-226.0	-0.8	-18.8
Wholesale trade	-110.3	-1.8	-9.2
Retail trade	-126.2	-0.8	-10.5
Transportation & warehousing	6.6	0.1	0.6
Utilities	3.7	0.6	0.3
Information	-67.0	-2.3	-5.6
Financial activities	-39.0	-0.4	-3.3
Professional & business services	-158.0	-0.7	-13.2
Private education & health services	-35.0	-0.1	-2.9
Leisure and hospitality	-176.0	-1.1	-14.7
Other services	-51.0	-0.9	-4.3
Government	-31.0	-0.1	-2.6

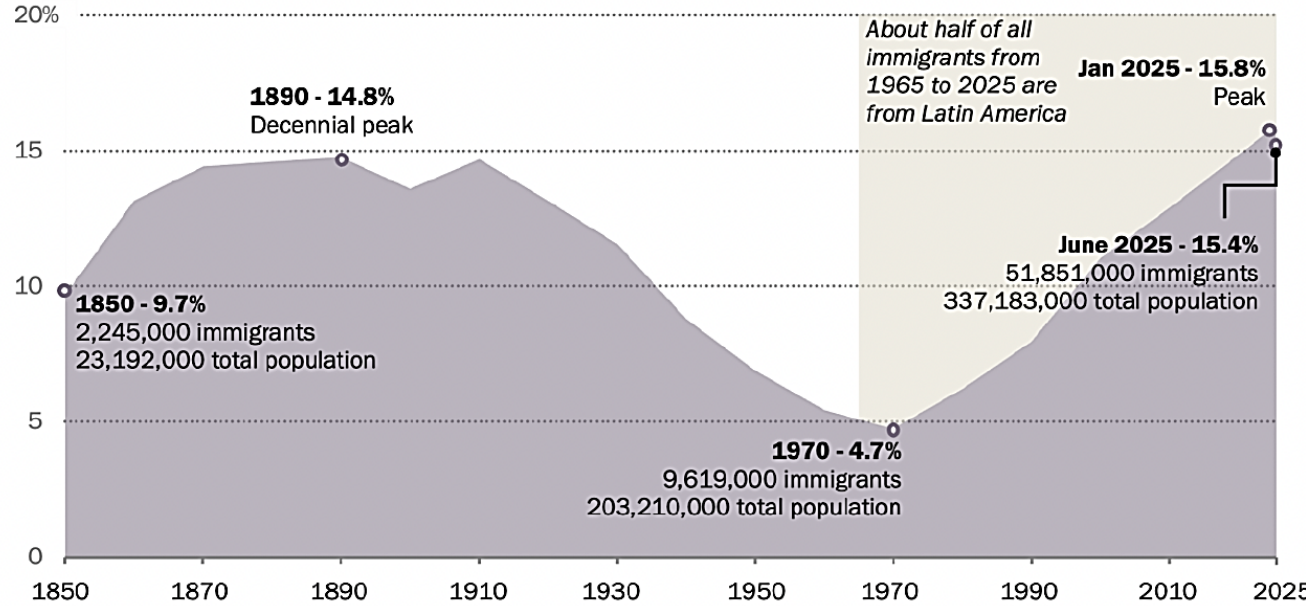
Current Estimate: 146,500 per month Apr 2024–Mar 2025  
 Pending Update: ≈70,500 per month Apr 2024–Mar 2025  
 Current Estimate: 27,000 per month May 2025–Aug 2025

1,758,000 - 911,000 = 847,000 nonfarm payroll jobs added.  
 Trade, Prof/Business Services, Leisure & Hospitality  
 biggest level adjustments. Information biggest % change.

# Foreign-Born Share Near Record

## U.S. immigrant population peaked at nearly 16% in January 2025

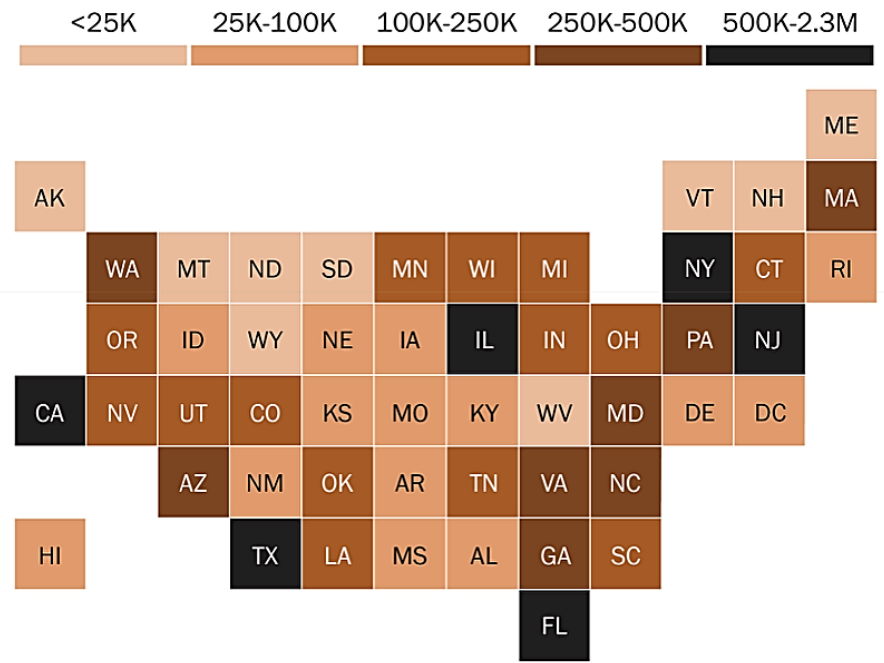
% of U.S. population that is foreign born



Note: Populations are rounded to the nearest 1,000. Shares are calculated using unrounded population numbers. Data for 2025 represents the civilian, noninstitutional population.  
 Source: U.S. Census Bureau, "Historical Census Statistics on the Foreign-Born Population of the United States: 1850-2000," Pew Research Center tabulations of 2010 and 2023 American Community Surveys and 2025 Current Population Surveys (IPUMS).

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## U.S. unauthorized immigrant population by state, 2023



Source: Pew Research Center estimates based on augmented U.S. Census Bureau data (IPUMS).  
 "U.S. Unauthorized Immigrant Population Reached a Record 14 Million in 2023"

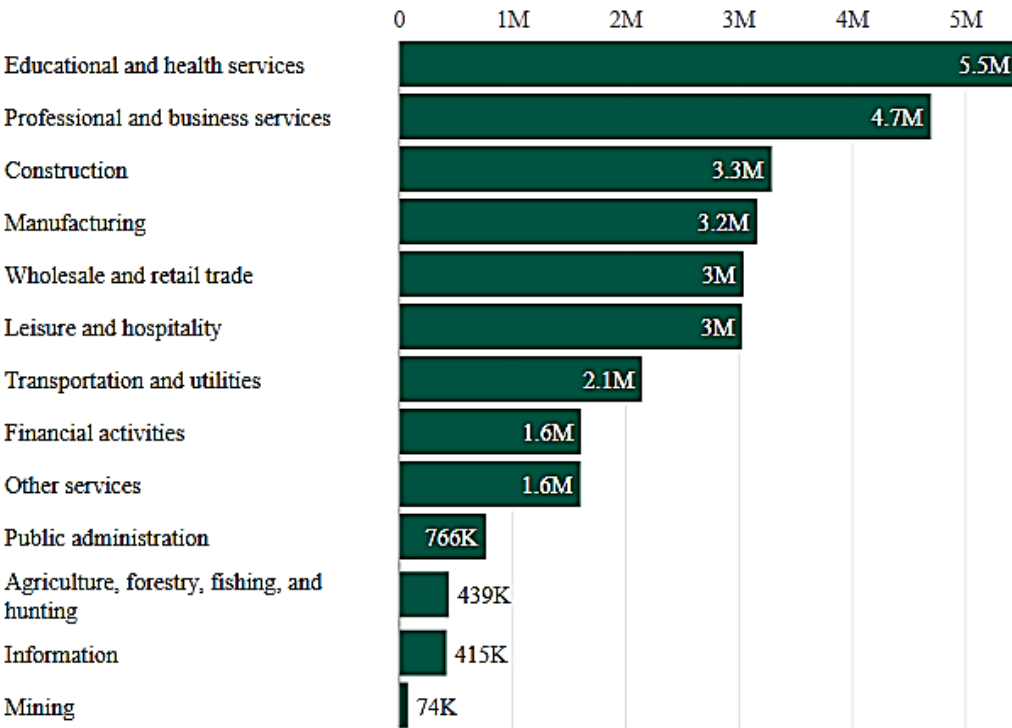
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- Total immigrant population share at record high in January 2025 (15.8%) but lower by June (15.4%).
- Unauthorized immigrant population widely distributed in 2023.

# Immigrants Serve Many Industries

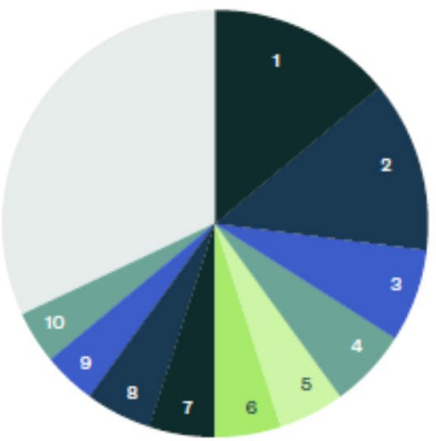
The educational and health services industry employs the largest number of foreign-born workers.

Employed foreign-born workers, by industry, 2023



TOP INDUSTRIES FOR UNDOCUMENTED IMMIGRANT WORKERS

Industry Group	Number of Undocumented Immigrant Workers	Share of Workforce Being Undocumented Immigrants
1 Construction	1,544,800	13.7%
2 Agriculture	244,700	12.7%
3 Hospitality	1,002,200	7.1%
4 General Services	600,800	6.6%
5 Wholesale Trade	193,400	5.6%
6 Transportation and Warehousing	480,600	5.6%
7 Manufacturing	870,400	5.4%
8 Professional Services	970,800	4.7%
9 Retail Trade	708,600	3.9%
10 Mining and Extraction	22,100	3.8%

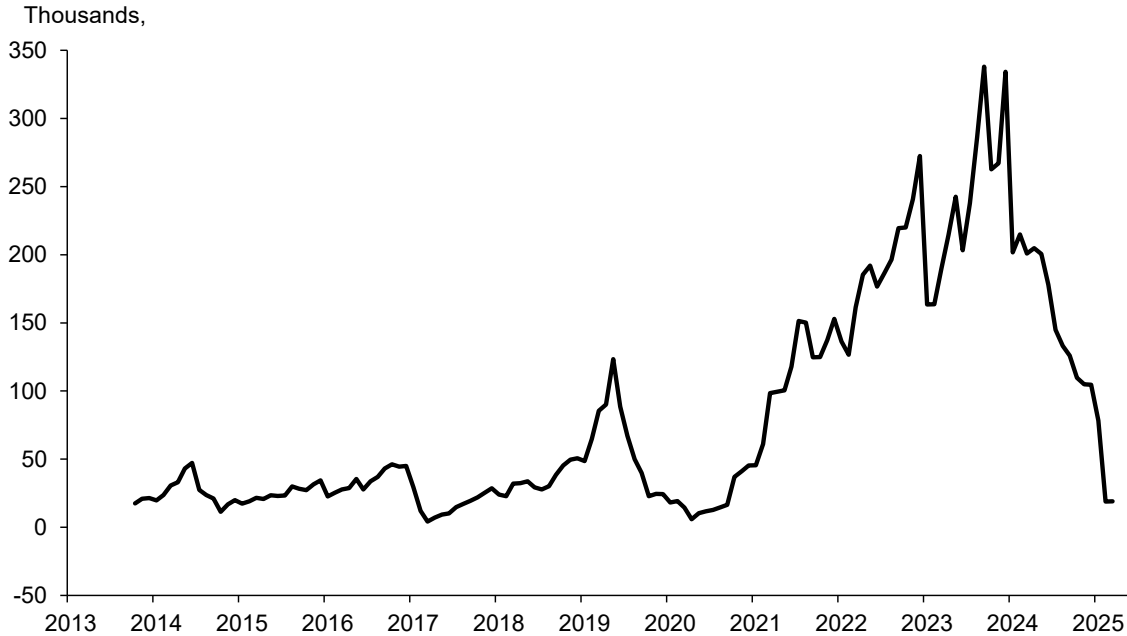


Source: American Immigration Council analysis of the 2022 1-year American Community Survey

- Many industries depend heavily on foreign-born workers, including 5.5 million in education and health (2023), 4.7 million in professional and business services, 3.3 million in construction.
- Many depend on undocumented workers in particular (2022), including agriculture (13.7% of total jobs), construction (12.7%), and hospitality (7.1%).

# Fewer Immigrants, Fewer Jobs (?)

**Chart 1**  
Net unauthorized immigration to the U.S. in steep decline

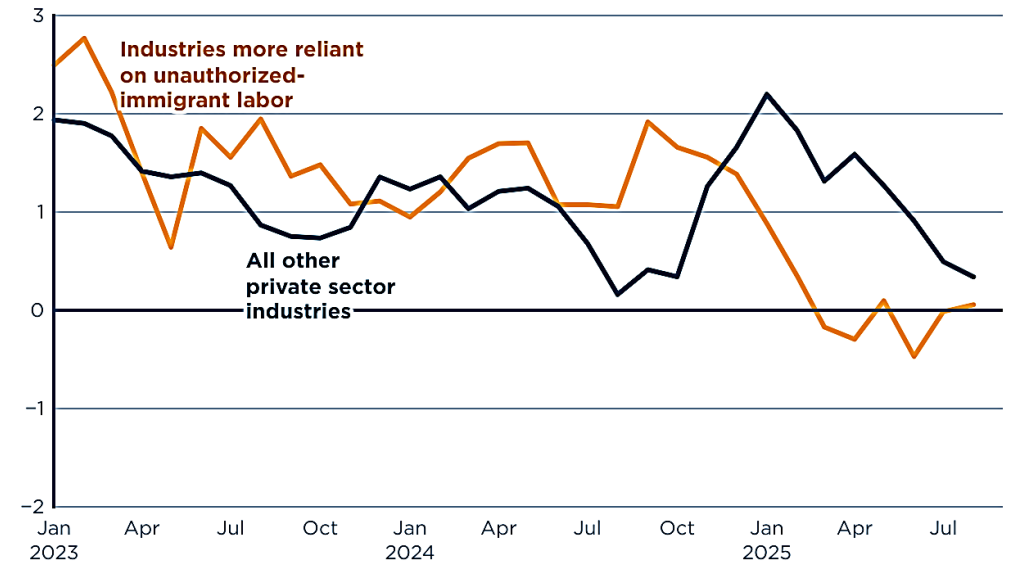


NOTES: Shown is net unauthorized immigration through March 2025. Data begin in October 2013.  
SOURCES: U.S. Department of Homeland Security; Transactional Records Access Clearinghouse; authors' calculations.

- Net unauthorized immigration flows down sharply in 2024.
- Further steep declines through March 2025.
- Perhaps good for border security, but this has consequences for those that depend on these workers.

## Slowing immigration has halted job growth in some industries

Annualized 3-month percent change in employment in two industry groups, January 2023–August 2025



#PIIECharts

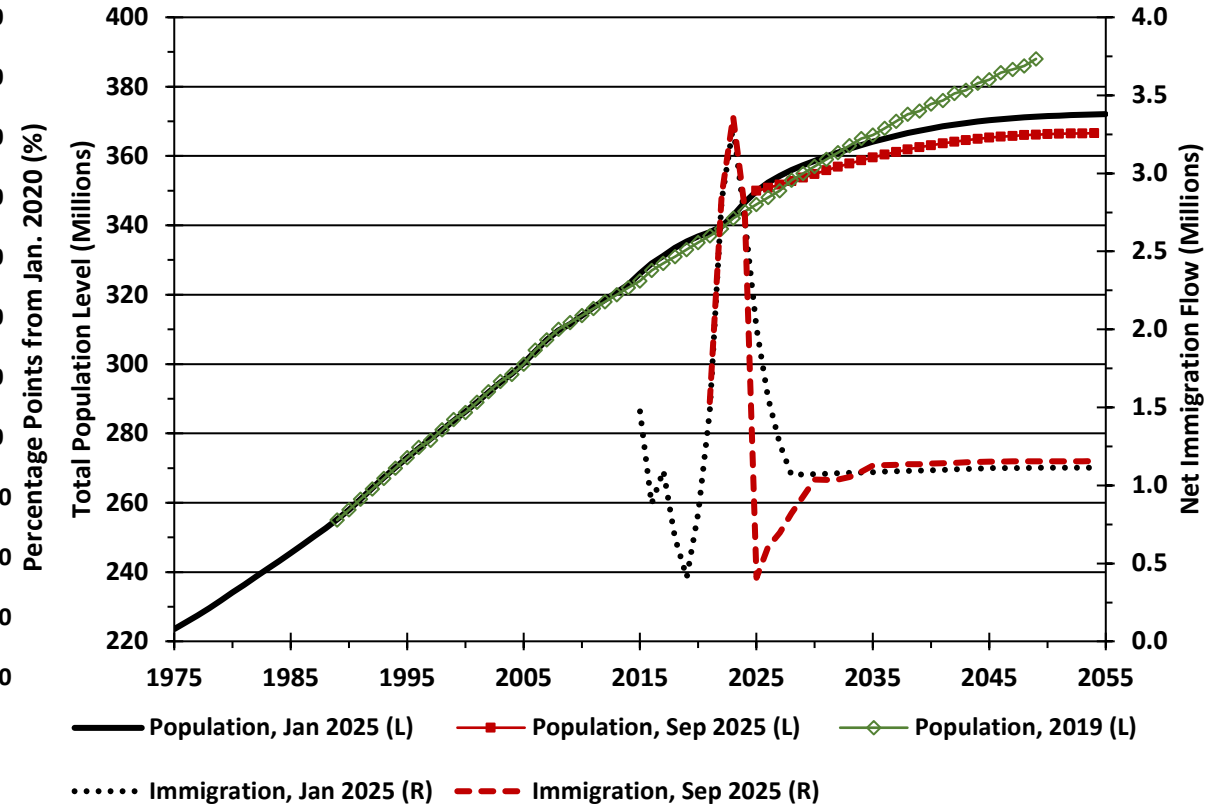
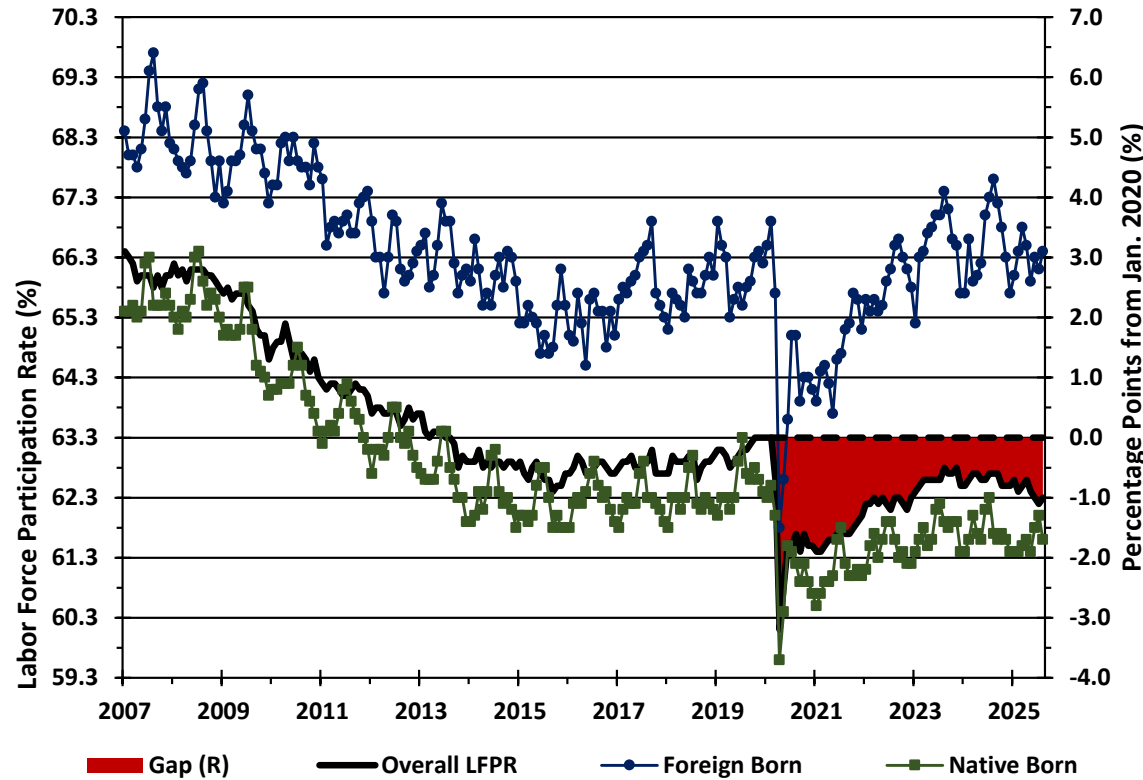
Learn more at [piie.com/research/piie-charts](https://www.piie.com/research/piie-charts)



**Notes:** Industries more reliant on unauthorized-immigrant labor include construction, several manufacturing industries, several technology and research industries, hotels, restaurants, building and landscaping services, warehousing and storage, repair and maintenance services, and home health aides.

**Source:** Author's analysis of Bureau of Labor Statistics Current Employment Statistics (job growth) and 2023 Census American Community Survey (industry classification). Estimated industry share of unauthorized immigrant workers adapted from [Borjas \(2017\)](#).

# Jobs Require People!



- Labor force participation improved but then widened in 2025.
- Foreign-born workers boost the overall participation rate.
- Selective removal of people with high LFPR could imply lower labor force growth.

- Sept. 2025: CBO reduced projections of net immigration. Population reduced by 1.00% in 2029 and 1.45% in 2054.
- Relative to 2019 outlook, population down 5.6% (22m) by 2049.
- Similar implications for GDP?

# Can We Just Put Americans to Work?

	Current Rate (%)	Target Rate (%)	Level Change (Thousands)
Participation	62.3	63.3	2,740 Labor Force 2,622 Employed Workers
Unemployment	4.3	3.5	1,388 Employed Workers 4,010 Additional Workers
Multiple Jobs	5.4	5.8	670 Additional Jobs 4,680 Total New Jobs
100K Jobs/Month			47 Months

Suppose the August 2025 labor supply returned to

- Pre-pandemic participation rates
- Pre-pandemic unemployment rates
- The post-2000 high of multiple-job propensity

Then labor supply effects include

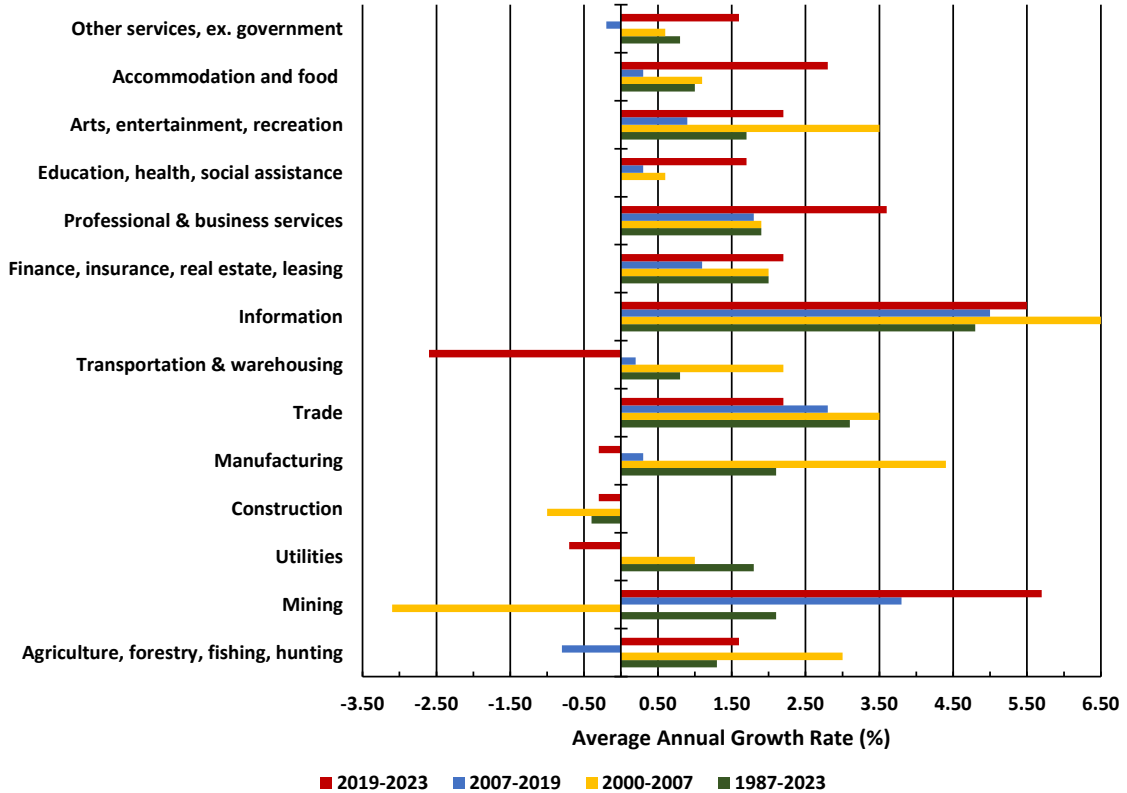
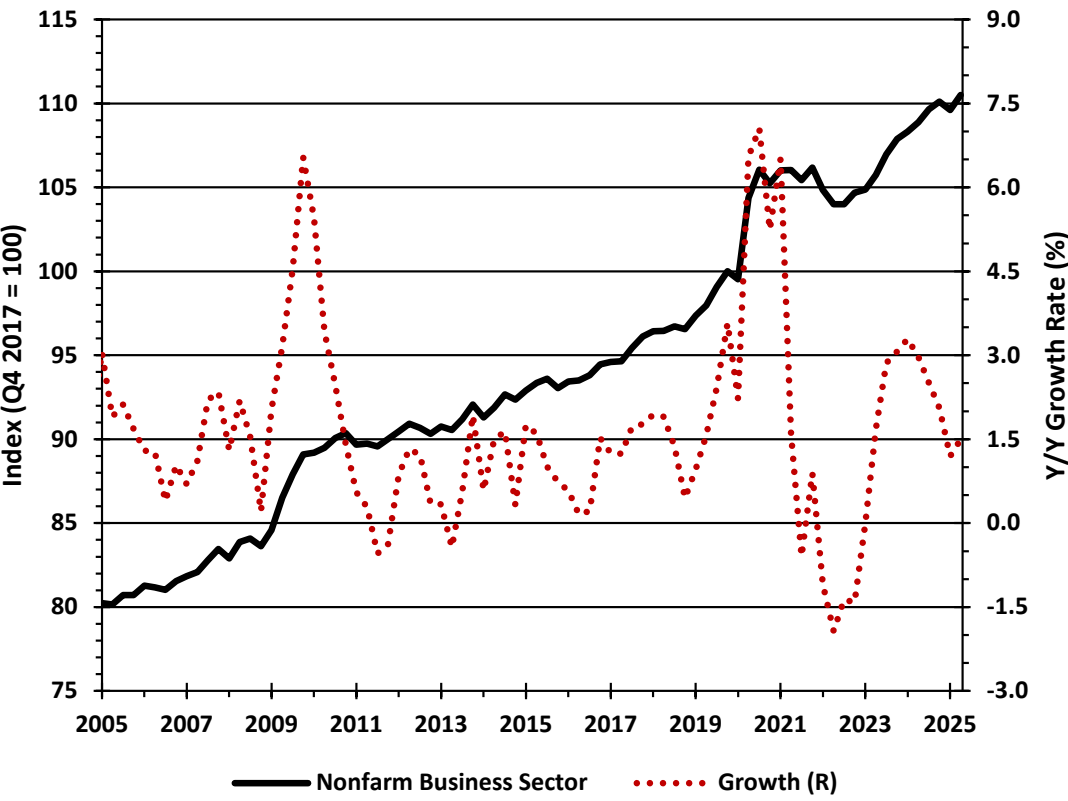
- Labor Force: +2.7 million
- Household Employment: +4.0 million
- Total Jobs: +4.7 million
- Months of Job Gains <4 Years at 100,000 / Month

However,

- Raising LFPR difficult with Baby Boom retirements.
- After level shift complete, job growth likely limited by increases in native population and net immigration.
- Native population could peak in 2030 (CBO).
- Total population could peak in following years (CBO).
- In comparison, net immigration = 10.5 million in the last 4 years alone (2021-2024, CBO), with many filling jobs.

Increasing American’s willingness and ability to work would be helpful, but sustaining meaningful job growth without significant net immigration could prove impossible.

# Productivity Supports Activity Growth. Jobs?



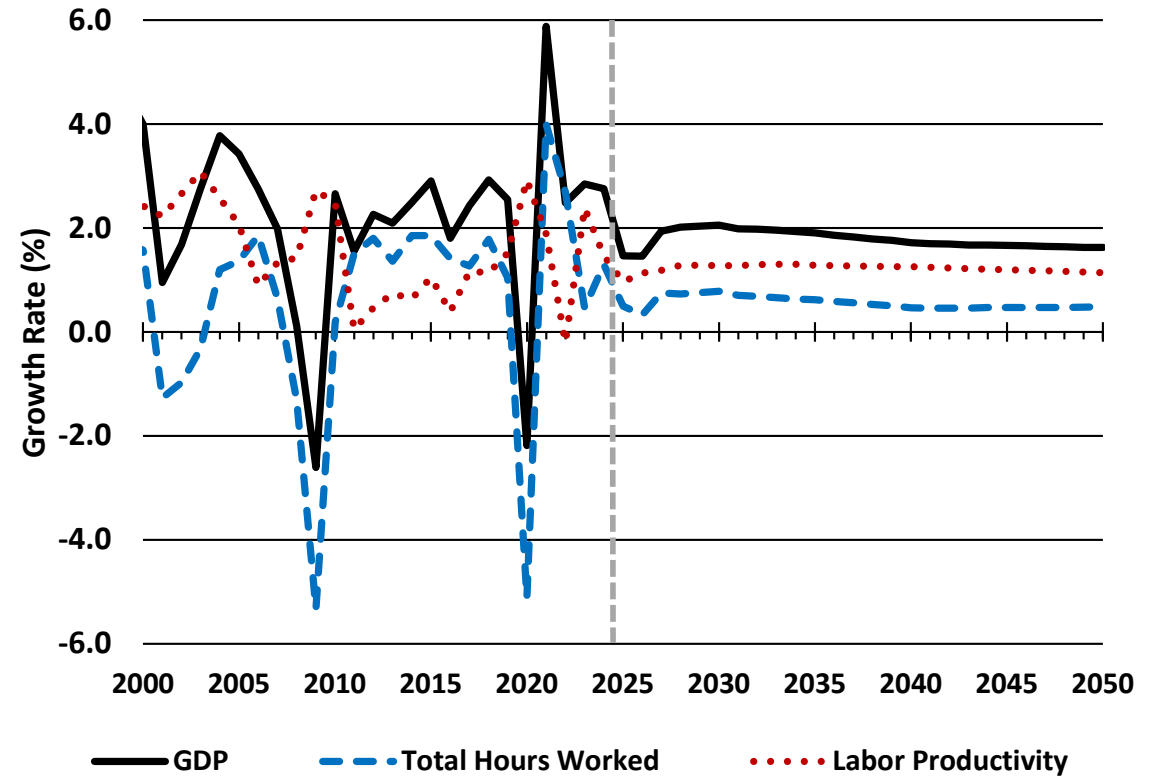
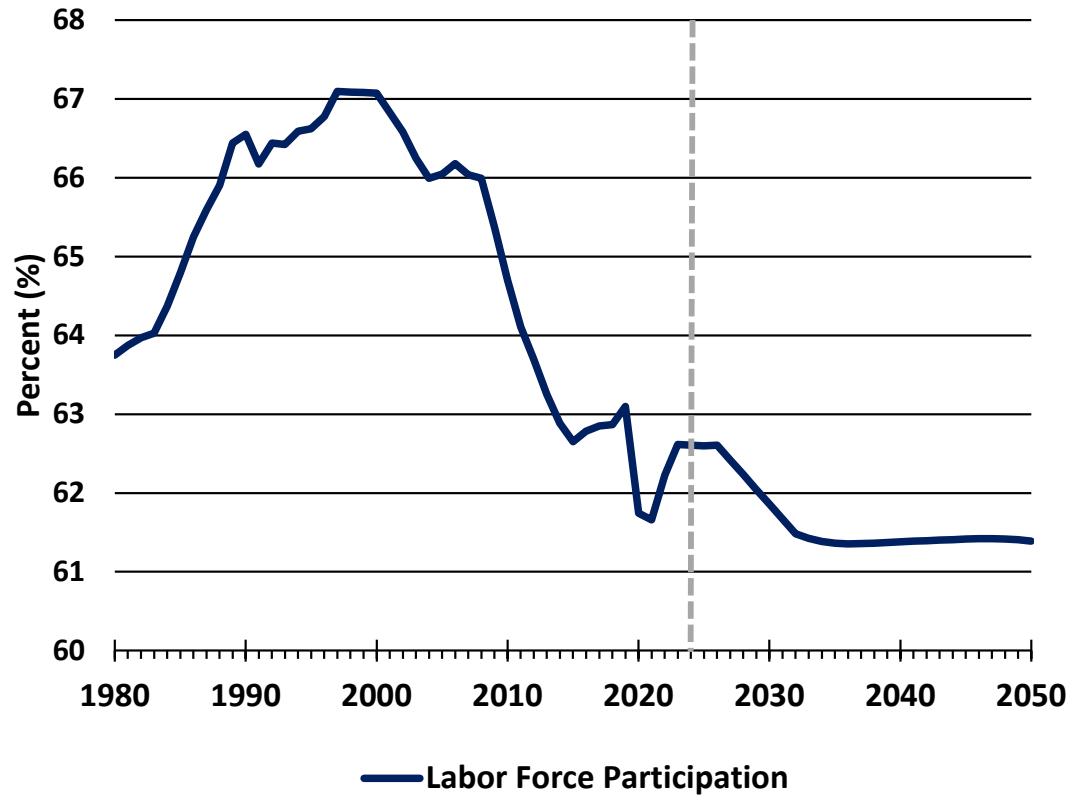
**Overall Labor Productivity:**

- Growth oscillated since pandemic volatility.
- Recently near its sluggish trend.

**Labor Productivity by Industry:**

- Recent gains: Ag, Mining, many Service industries
- Recent declines: Utilities, Construction, Mfg, Transportation.

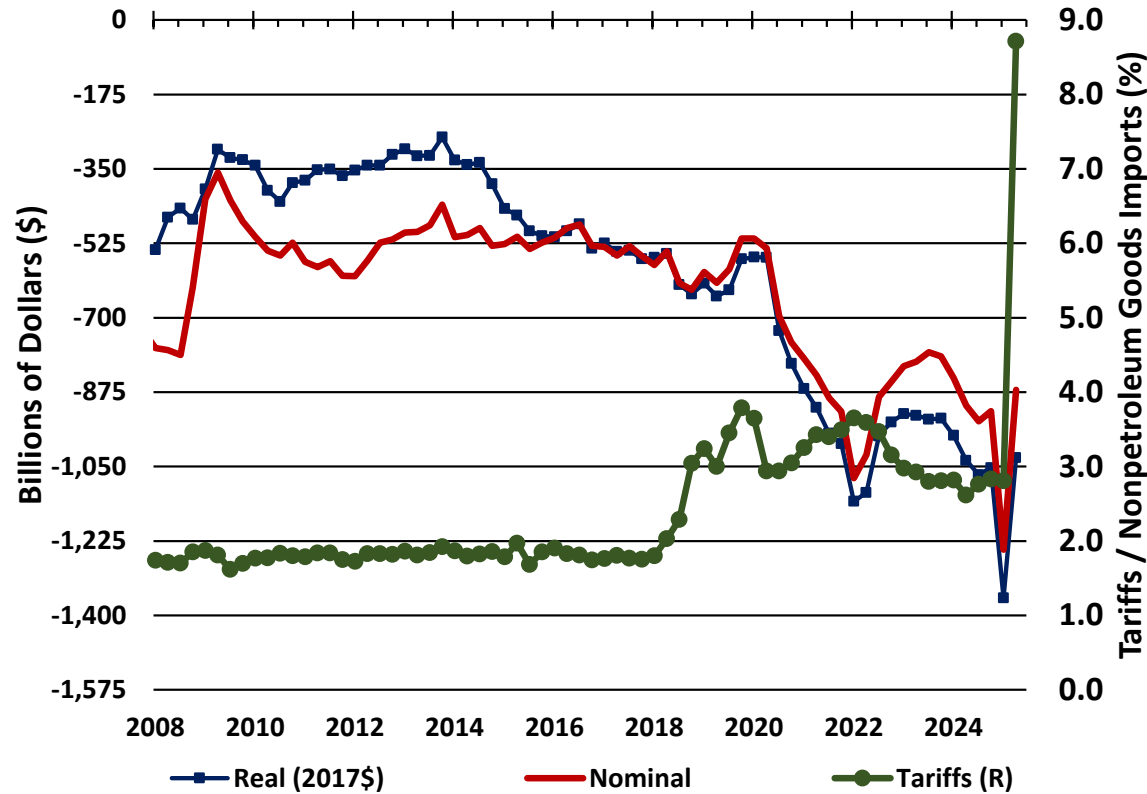
# Productivity + Labor Supply = GDP



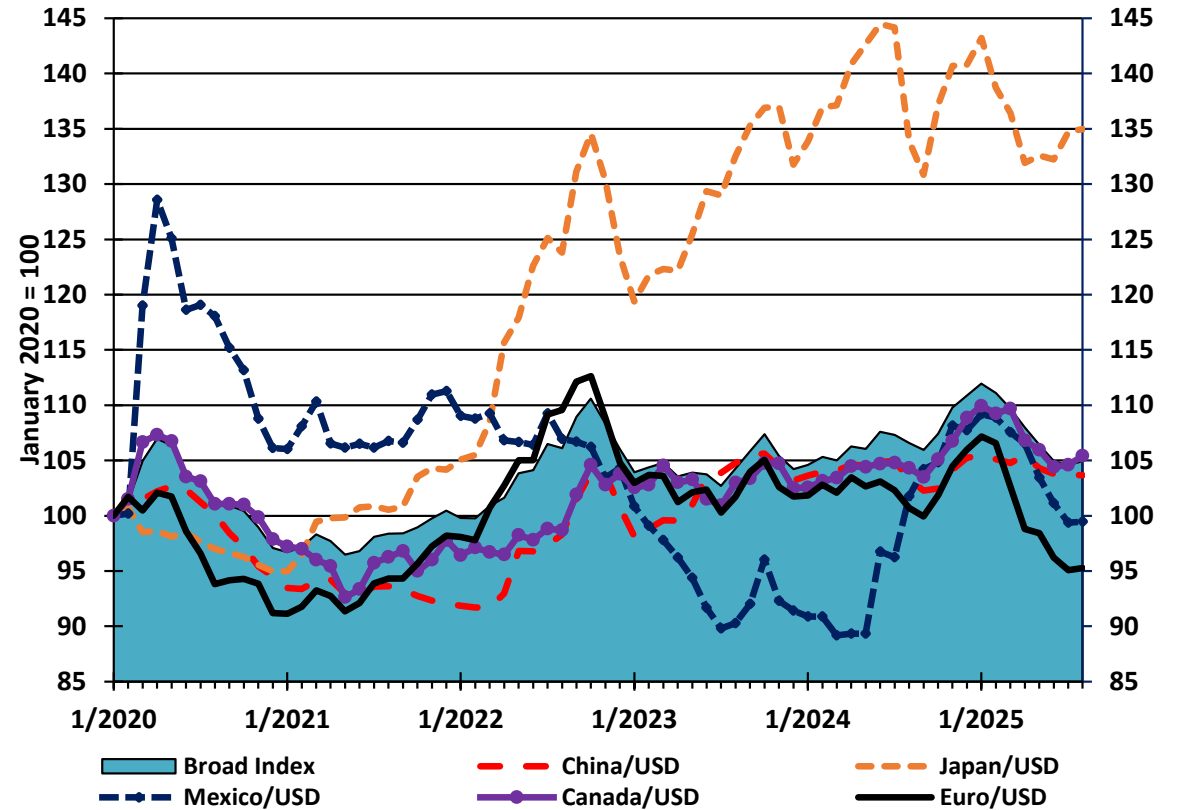
- Labor Force Participation declines with aging population.
- ⇒ Slower growth of labor force and hours worked.

- 2.0% GDP growth could be difficult to sustain, though
- Greater immigration could boost hours, and
- Higher labor productivity growth could boost production, e.g. AI, 3-D printing, self-driving vehicles.

# Uncertainty: Trade Policy & Currency

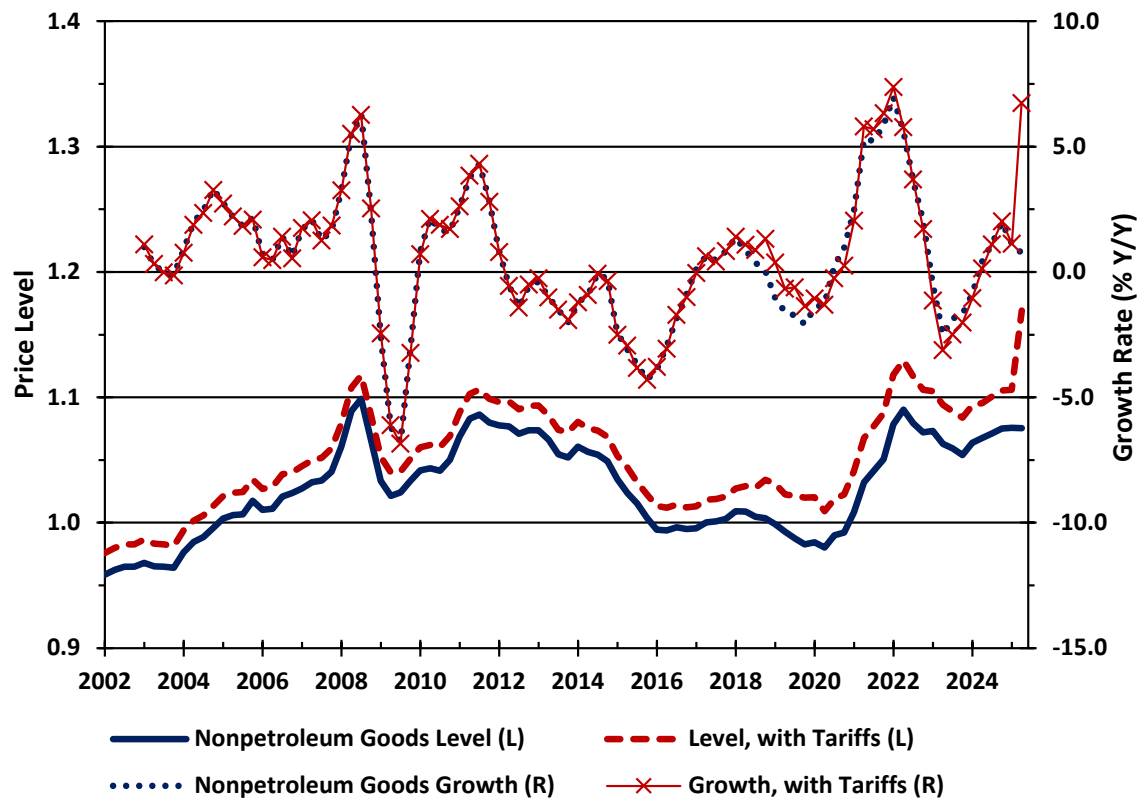


Trade gap surged in Q1 2025 in anticipation of higher tariffs; the gap fell in Q2 2025.  
 Effective tariff rates rose in 2018 and again in Q2 2025.

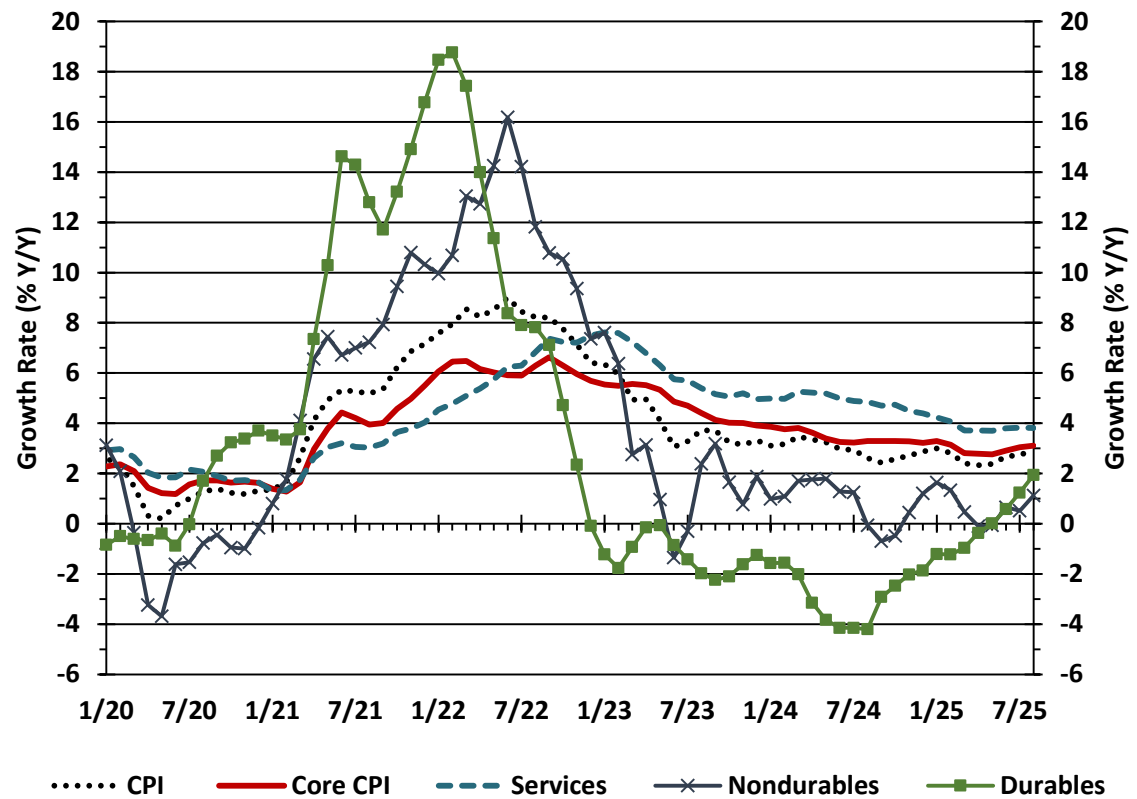


In August, the dollar was down 6.2% from January 2025 but still up 4.9% from January 2020.

# Tariff Implications for Inflation

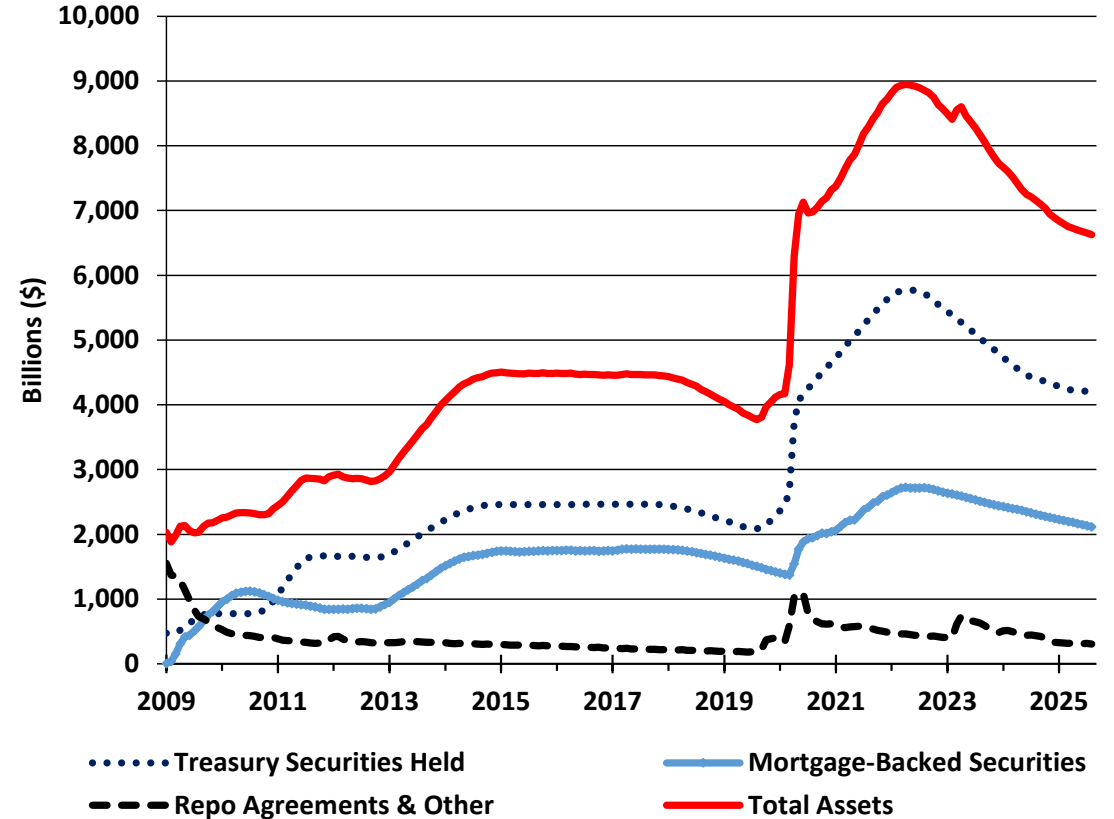
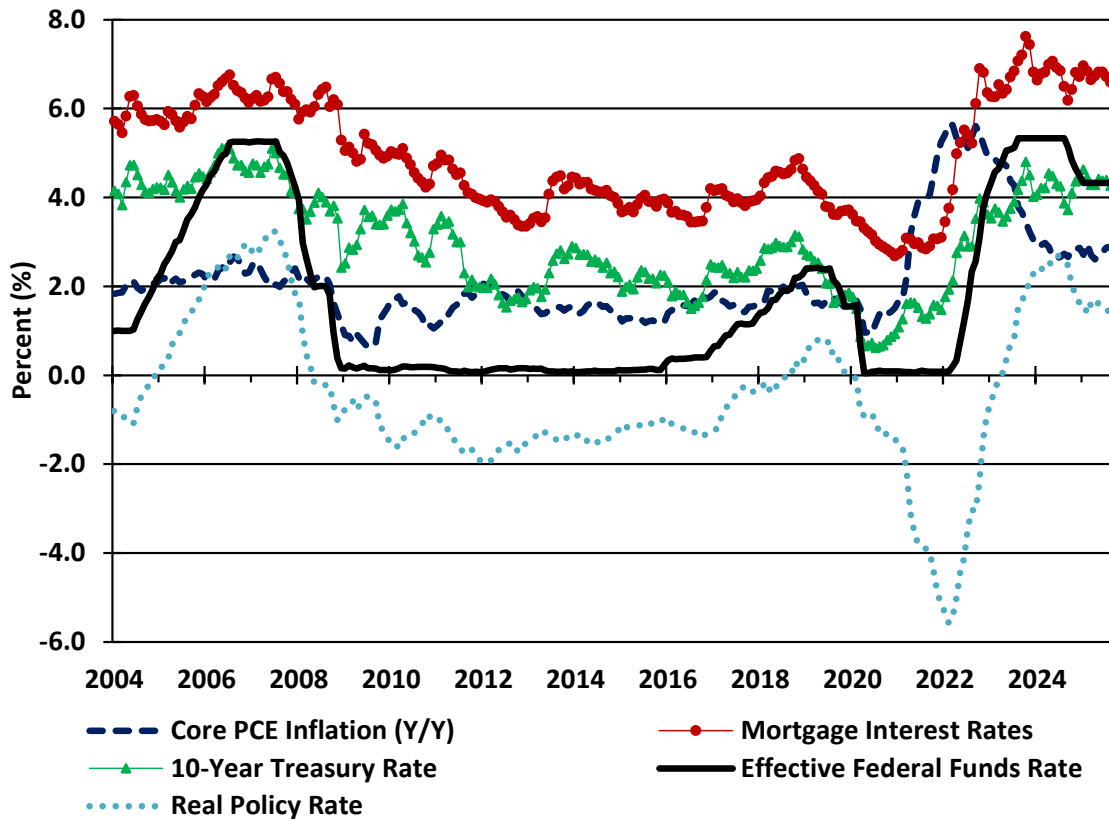


Implicit price growth for nonpetroleum goods, Q2 2025:  
 Excluding tariff charges: 0.7% Y/Y  
 Including tariff charges: 6.7% Y/Y



Inflation is rising for durable and recently for nondurable goods. Effects of tariff increases not yet obvious in broad price measures, but Y/Y inflation is rising.

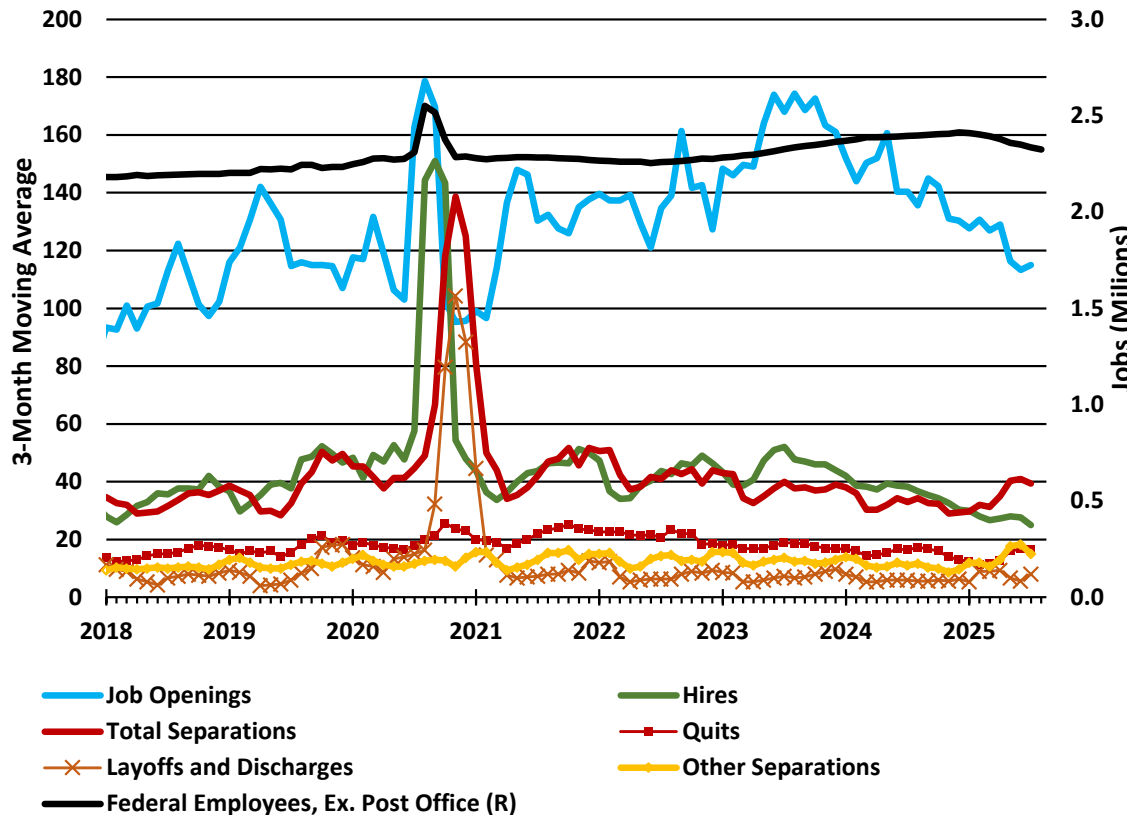
# Uncertainty: Monetary Policy



- Consternation over policy interest rate cuts (25bp in 9/25)
- Real policy rates remained high through August.
- Long-term rates might not fall with policy rates.

The Fed continues to reduce asset holdings, reversing QE. -\$2.3 trillion since 4/2022, with greatest reductions in Treasury assets, followed by mortgage-backed securities.

# Uncertainty: Fiscal Policy–DOGE



## Total Savings

<p>Estimated Savings</p> <p><b>\$206B</b></p> <p><small>Combination of asset sales, contract/lease cancellations and renegotiations, fraud and improper payment deletion, grant cancellations, interest savings, programmatic changes, regulatory savings, and workforce reductions.</small></p>	<p>Amount Saved Per Taxpayer</p> <p><b>\$1,279.50</b></p> <p><small>Per taxpayer amount is calculated using an estimate of 161 million individual federal taxpayers.</small></p>
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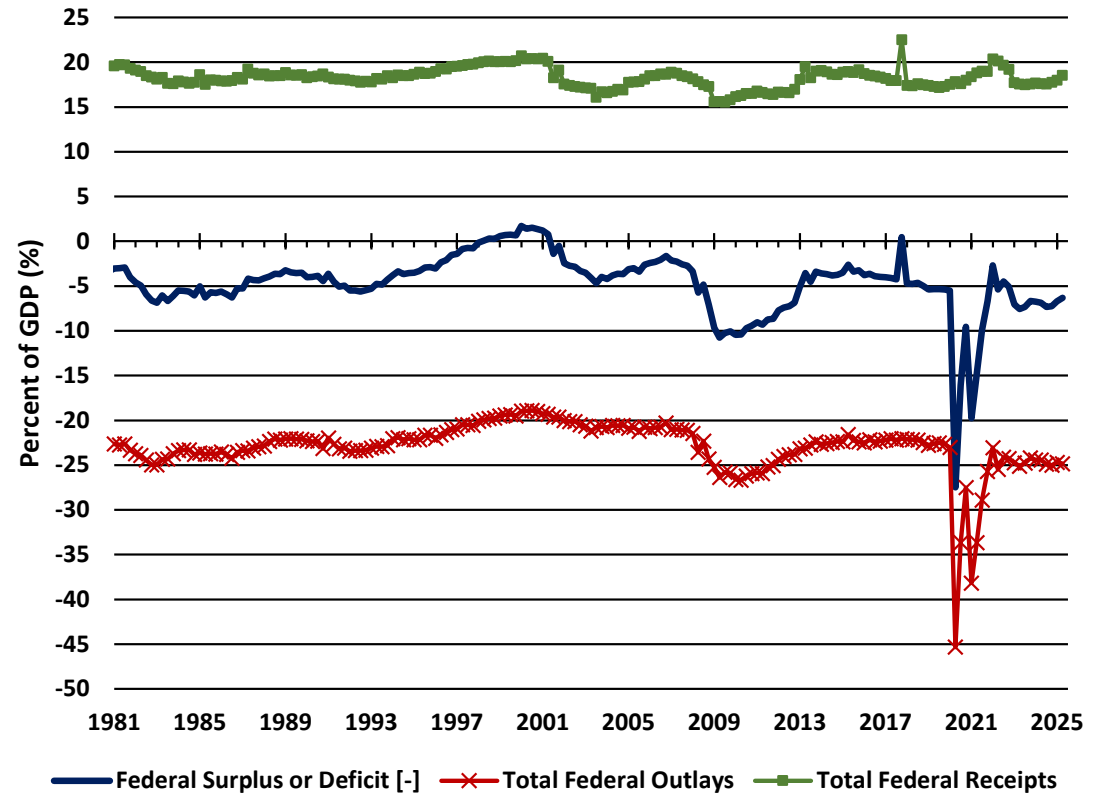
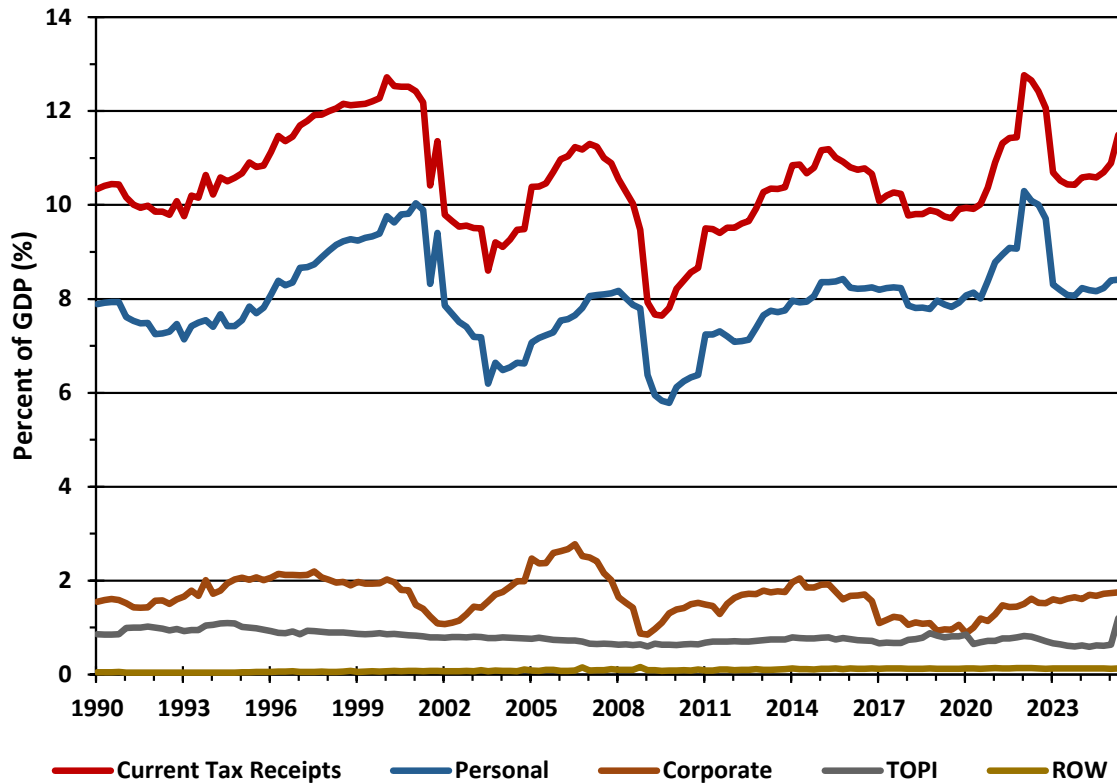
## Savings from Regulatory Changes Alone

<p>Estimated Savings</p> <p><b>\$30.1B</b></p> <p><small>Estimated savings from regulatory changes are included in the totals on the Savings page. Savings totals do not include amounts from "to be calculated" fields or from any agency guideline rescission (i.e. they count for \$0).</small></p>	<p>Words Deleted</p> <p><b>1.9M</b></p> <p><small>From regulations and internal guidance documents. Word count reduction is contingent upon finalization of repeals through the rulemaking process.</small></p>
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- Total federal job levels trimmed in 2025 -85,000 jobs Jan-Aug (Seasonally Adjusted).
- Hiring already falling. Total separations increased.

DOGE claims \$206 billion in various savings so far in workforce reductions, contract cancellations, grant reductions, deregulation, asset sales, interest savings, ...

# Uncertainty: Fiscal Policy–Taxes, Spending



Much consternation over federal tax policy. Recent effective personal and corporate rates similar to others of last 10 years; rising since pandemic volatility. Q2 2025 tariff boost.

According to NIPA accounting, federal accounts in proportion to GDP in Q2 2025 amounted to:

+18.5%	Revenue
-24.8%	Spending
= -6.8%	Net Lending

# Uncertainty: Fiscal Policy—OBBBA

By Fiscal Year, Billions of Dollars	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	25-34
	Increases or Decreases (-) in the Deficit										
<b>Change in the Deficit From P.L. 119-21</b>	-21	487	602	555	450	325	250	225	251	268	3,394
<b>Change From Extending Certain Tax Provisions</b>											
Termination of Deduction for Personal Exemptions Other Than Temporary Senior Deduction	0	0	0	0	9	24	24	24	24	24	129
Limitation on Individual Deductions for Certain State and Local Taxes, etc.	0	0	0	0	0	17	39	35	36	37	165
No Tax on Tips	0	0	0	0	3	9	9	10	10	11	52
No Tax on Overtime	0	0	0	0	15	24	24	24	25	25	137
No Tax on Car Loan Interest	0	0	0	0	6	11	12	12	12	13	66
Trump Accounts and Contribution Pilot Program	0	0	0	0	4	4	4	4	4	4	22
Special Depreciation Allowance for Qualified Production Property	0	0	0	0	5	15	29	36	38	39	163
Treatment of Certain Qualified Sound Recording Productions	0	0	0	0	0	0	0	0	0	0	1
Extension and Modification of Clean Fuel Production Credit	0	0	0	0	0	5	10	12	13	13	53
Restrictions on Carbon Oxide Sequestration Credit	0	0	0	0	0	0	0	0	0	0	0
<b>Total Change From Certain Tax Provisions</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>108</b>	<b>151</b>	<b>157</b>	<b>163</b>	<b>166</b>	<b>787</b>
<b>Change in the Primary Deficit</b>	<b>-21</b>	<b>487</b>	<b>602</b>	<b>555</b>	<b>493</b>	<b>433</b>	<b>402</b>	<b>382</b>	<b>414</b>	<b>434</b>	<b>4,182</b>
<b>Changes From Debt Service</b>	<b>0</b>	<b>14</b>	<b>34</b>	<b>55</b>	<b>74</b>	<b>91</b>	<b>107</b>	<b>122</b>	<b>138</b>	<b>155</b>	<b>789</b>
<b>Total Changes</b>	<b>-21</b>	<b>501</b>	<b>636</b>	<b>610</b>	<b>566</b>	<b>524</b>	<b>508</b>	<b>504</b>	<b>551</b>	<b>589</b>	<b>4,971</b>

CBO and JCT estimate effects on federal deficits by 2034, relative to previous current-law baseline:

- + \$3.4 trillion in spending
- + \$0.8 trillion in tax provisions
- + \$0.8 trillion in finance costs
- = \$5.0 trillion in additional debt

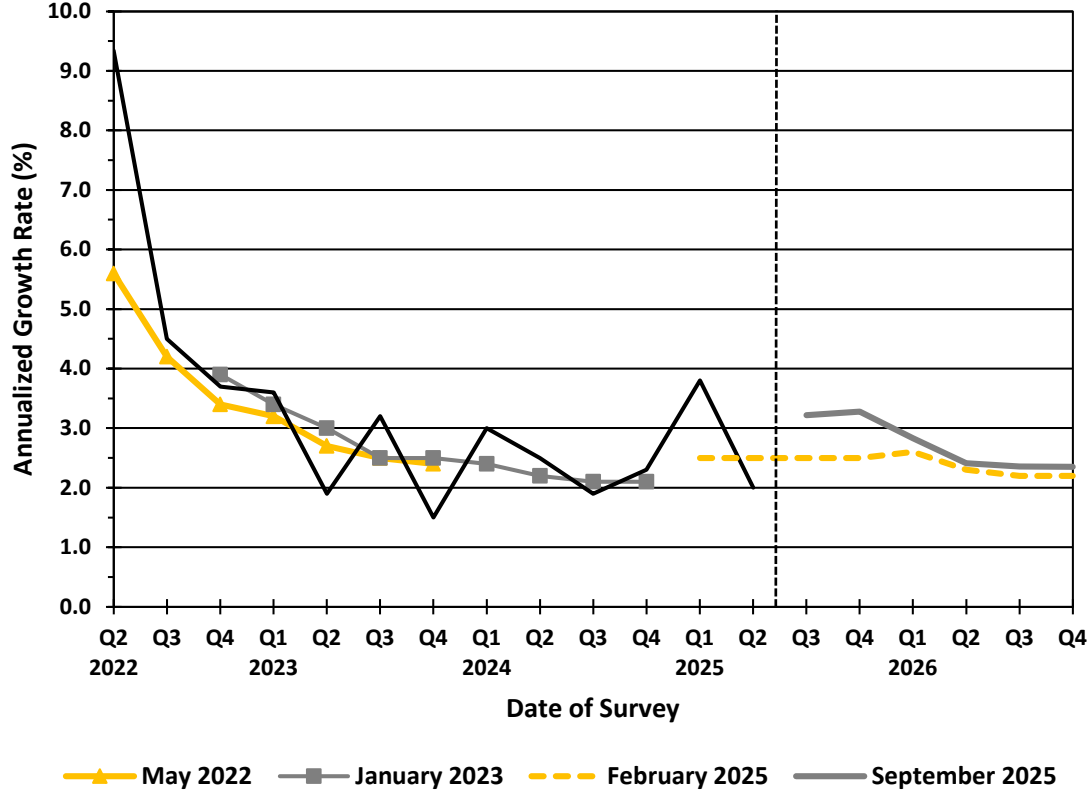
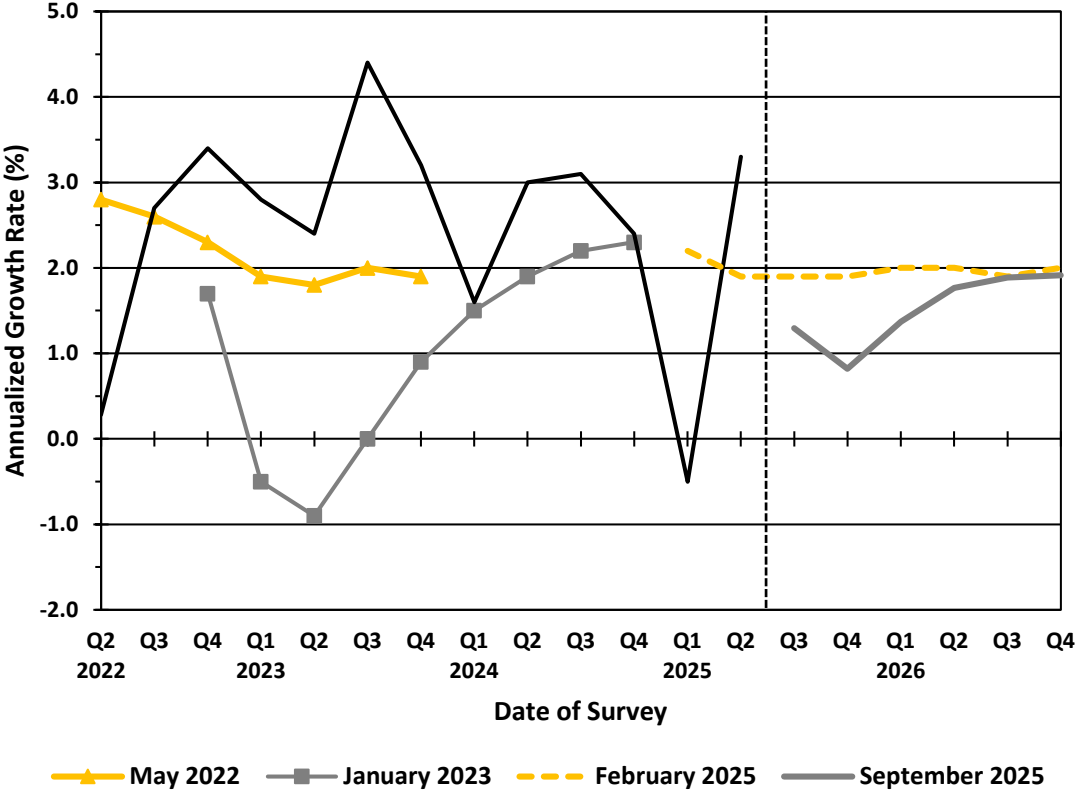
Very large supply-side effects would be necessary to offset these projected increases in debt.

# The Outlook

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- Macro 2-Year Consensus Outlook
- International Outlook (IMF, April 2025)
- Summary, Lift U.S. Forecast to 2050 (Spring 2025)
  - Real Economy
  - Labor, Prices, and Financial Details
  - Personal Income and Expenditure
  - Labor Supply, Productivity, and Employment
  - Select Risks to the Outlook

# Growth & Inflation: Pessimism Returns

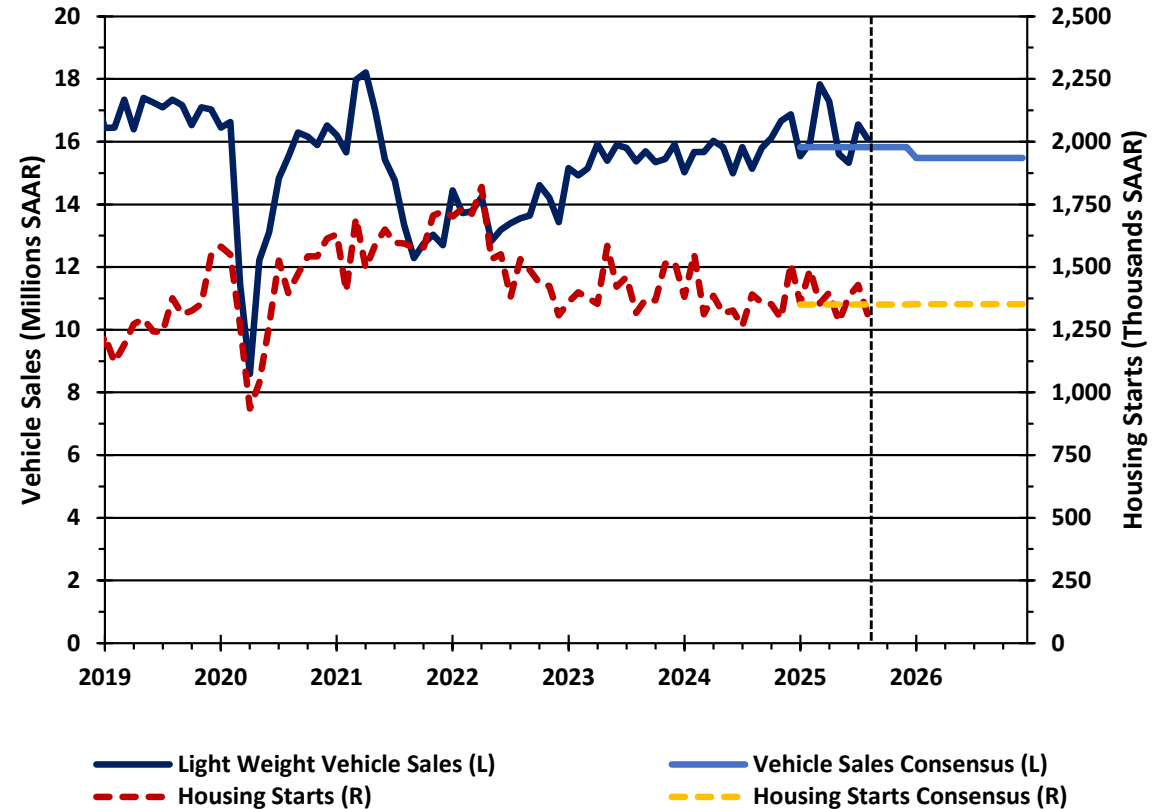
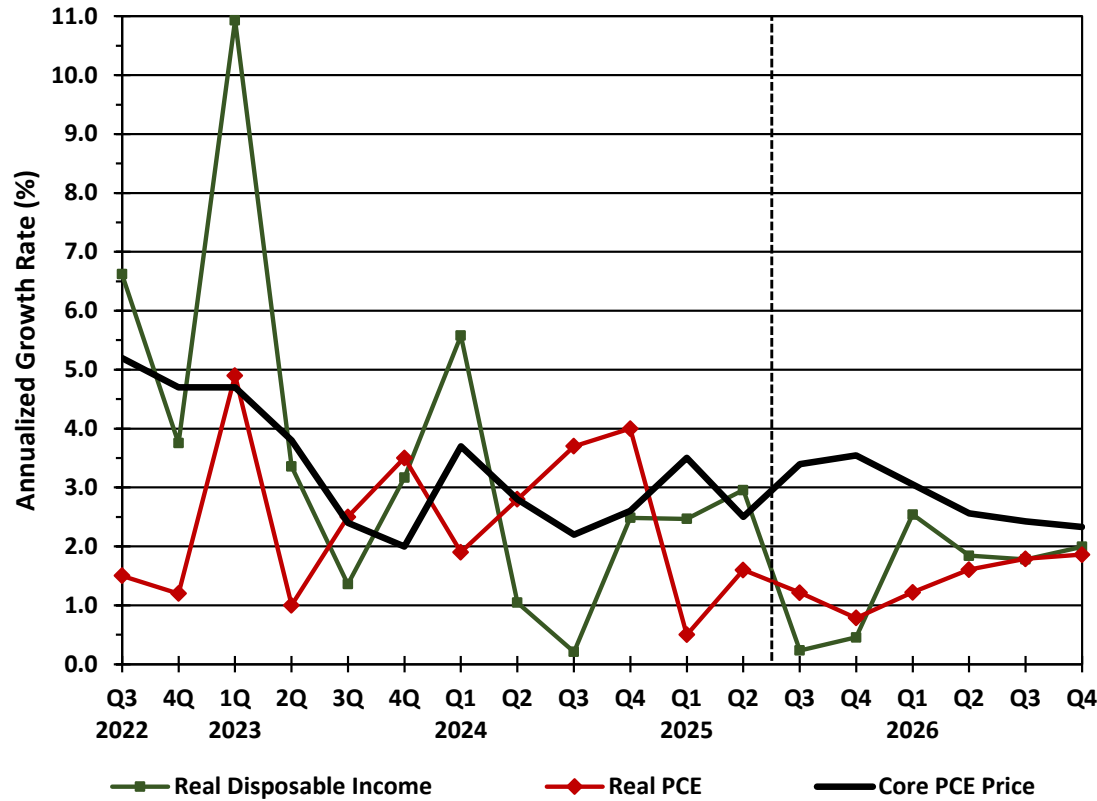


Alternating optimism and pessimism, with pessimism implying short-run sluggishness and elevated inflation.

	2021	2022	2023	2024	2025	2026
<b>GDP</b>	6.1	2.5	2.9	2.8	1.7	1.5
<b>GDP Inflation</b>	4.5	7.1	3.6	2.4	2.8	2.7

Billions 2017\$ and Annual Growth Rate (%)

# Sluggish Income & PCE, Higher Prices

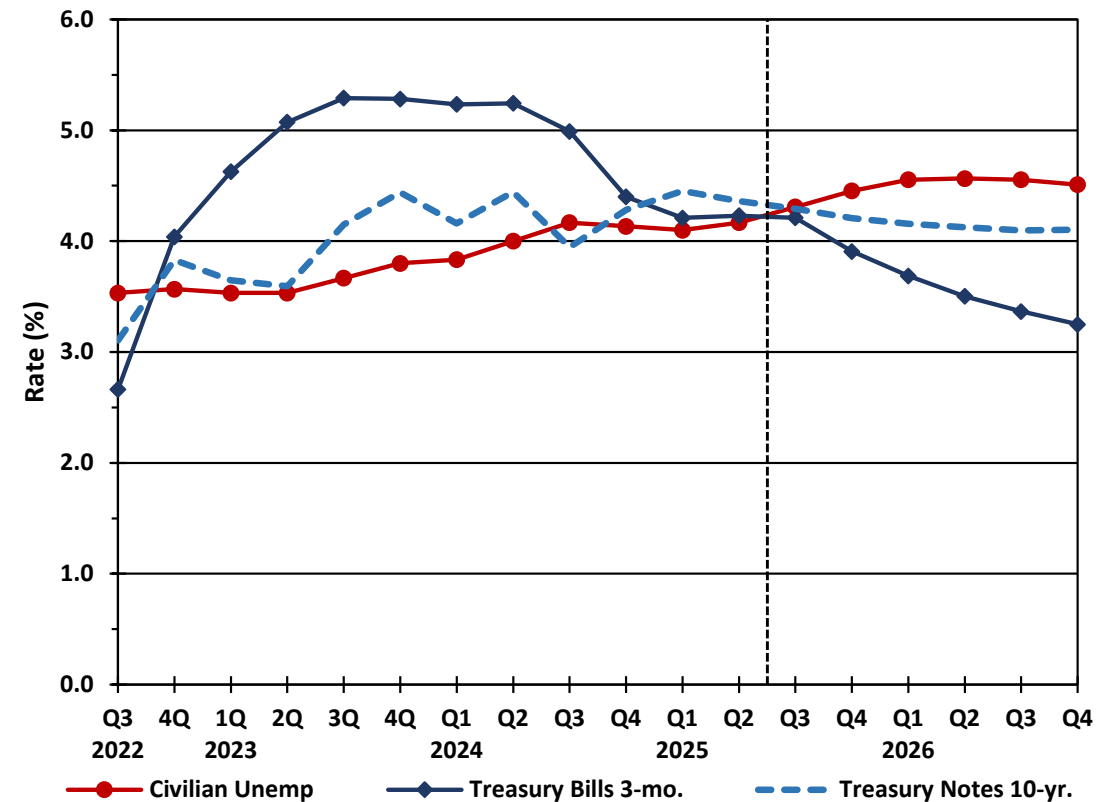
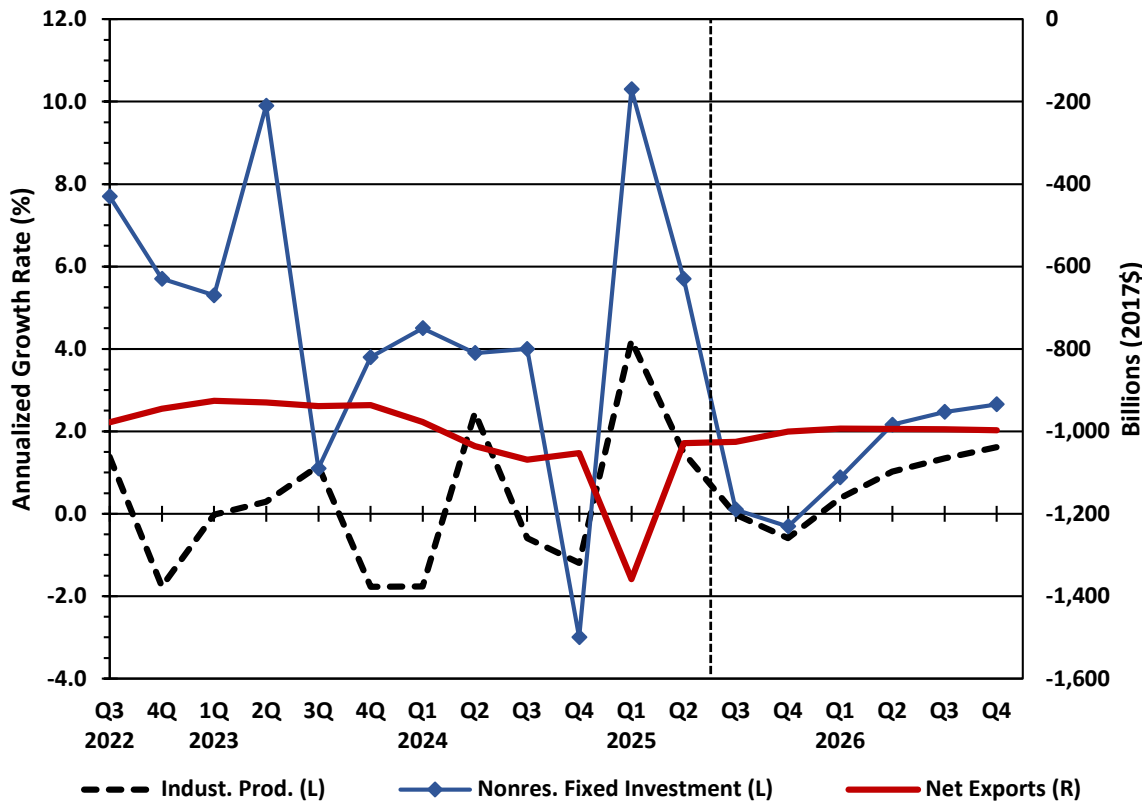


Following elevated inflation and weak real income and spending, growth of all approach 2.0% by Q4 2026.

	2021	2022	2023	2024	2025	2026
Vehicle Sales	14.9	13.8	15.5	15.9	15.8	15.5
Housing Starts	1.60	1.55	1.42	1.37	1.35	1.35

Millions

# Weaker Investment & Production



- Weaker nonresidential fixed investment and industrial production before recovery.
- Little change in projected trade gap.

- Unemployment rate rises to about 4.5%.
- Short-term interest rates fall, long-term rates stable.

# International: Slower Growth, Lower Inflation

GDP Annual Growth	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>World</b>	<b>2.9</b>	<b>-2.7</b>	<b>6.6</b>	<b>3.6</b>	<b>3.5</b>	<b>3.3</b>	<b>2.8</b>	<b>3.0</b>	<b>3.2</b>	<b>3.2</b>	<b>3.2</b>	<b>3.1</b>
Advanced economies	1.9	-4.0	6.0	2.9	1.7	1.8	1.4	1.5	1.7	1.7	1.7	1.7
Euro area	1.6	-6.0	6.3	3.5	0.4	0.9	0.8	1.2	1.3	1.3	1.2	1.1
Major advanced economies (G7)	1.7	-4.2	5.8	2.6	1.9	1.7	1.2	1.4	1.6	1.6	1.6	1.6
Other advanced economies	2.0	-1.6	5.9	2.8	1.8	2.2	1.8	2.0	2.2	2.2	2.1	2.0
Emerging market & developing economies	3.7	-1.7	7.0	4.1	4.7	4.3	3.7	3.9	4.2	4.1	4.1	4.0
Canada	1.9	-5.0	6.0	4.2	1.5	1.5	1.4	1.6	1.7	1.6	1.6	1.5
Mexico	-0.4	-8.4	6.0	3.7	3.3	1.5	-0.3	1.4	2.1	2.2	2.2	2.1
<b>United States</b>	<b>2.6</b>	<b>-2.2</b>	<b>6.1</b>	<b>2.5</b>	<b>2.9</b>	<b>2.8</b>	<b>1.8</b>	<b>1.7</b>	<b>2.0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>
China	6.1	2.3	8.6	3.1	5.4	5.0	4.0	4.0	4.2	4.1	3.7	3.4

PCE Inflation	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>World</b>	<b>3.5</b>	<b>3.3</b>	<b>4.7</b>	<b>8.6</b>	<b>6.6</b>	<b>5.7</b>	<b>4.3</b>	<b>3.6</b>	<b>3.3</b>	<b>3.2</b>	<b>3.2</b>	<b>3.2</b>
Advanced economies	1.4	0.7	3.1	7.3	4.6	2.6	2.5	2.2	2.0	2.1	2.1	2.1
Euro area	1.2	0.3	2.6	8.4	5.4	2.4	2.1	1.9	2.0	2.0	2.0	2.0
Major advanced economies (G7)	1.5	0.8	3.3	7.3	4.7	2.7	2.6	2.2	2.1	2.1	2.1	2.1
Other advanced economies	1.1	0.5	2.4	5.7	4.3	2.3	1.9	2.0	1.9	2.0	2.0	1.9
Emerging market & developing economies	5.1	5.2	5.8	9.5	8.0	7.7	5.5	4.6	4.1	4.0	3.9	3.8
Canada	1.9	0.7	3.4	6.8	3.9	2.4	2.0	2.1	2.0	2.0	2.0	2.0
Mexico	3.6	3.4	5.7	7.9	5.5	4.7	3.5	3.2	3.0	3.0	3.0	3.0
<b>United States</b>	<b>1.8</b>	<b>1.3</b>	<b>4.7</b>	<b>8.0</b>	<b>4.1</b>	<b>3.0</b>	<b>3.0</b>	<b>2.5</b>	<b>2.1</b>	<b>2.2</b>	<b>2.2</b>	<b>2.2</b>
China	2.9	2.5	0.9	2.0	0.2	0.2	0.0	0.6	1.4	1.8	1.9	2.0

# U.S. Outlook: Real Spending

	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-30	30-50
<b>Gross Domestic Product</b>	-2.2	6.1	2.5	2.9	2.8	1.5	1.5	2.0	1.8
<b>Personal Consumption</b>	-2.5	8.8	3.0	2.5	2.8	2.1	1.4	2.0	1.8
Durable Goods	7.1	16.6	-1.9	3.9	3.3	2.7	1.2	2.9	2.6
Nondurable Goods	3.4	8.6	0.1	0.8	1.9	1.9	1.1	1.9	1.8
Services	-5.8	7.5	5.0	2.9	2.9	2.0	1.6	1.9	1.7
<b>Gross Private Domestic Investment</b>	-4.5	8.8	6.0	0.1	4.0	0.6	0.5	3.3	2.5
<b>Nonres. Fixed Investment</b>	-4.6	6.0	7.0	6.0	3.6	1.7	1.0	3.1	2.6
Nonresidential Structures	-9.2	-2.6	3.6	10.8	3.5	-1.3	0.1	1.9	1.6
Equipment Investment	-10.1	6.7	4.4	3.5	3.4	3.1	0.8	3.7	2.7
Intellectual Property	4.5	10.2	11.2	5.8	3.9	2.0	1.7	3.1	3.1
Residential Investment	7.7	10.9	-8.6	-8.3	4.2	-0.3	1.3	3.9	2.3
Exports (% change)	-13.1	6.5	7.5	2.8	3.3	0.7	1.5	3.5	2.4
Imports (% change)	-9.0	14.7	8.6	-1.2	5.3	4.2	-1.3	2.9	2.0
<b>Government</b>	3.4	-0.3	-1.1	3.9	3.4	1.5	0.3	0.4	0.5
<b>Federal</b>	6.3	1.8	-3.2	2.9	2.6	1.0	0.6	0.3	0.4
Defense	3.0	-1.0	-3.9	3.3	3.1	1.1	0.4	0.2	0.4
Nondefense	11.2	5.8	-2.3	2.5	1.8	0.9	0.7	0.5	0.5
State & Local	1.7	-1.6	0.2	4.4	3.9	1.8	0.1	0.5	0.5
	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2030</b>	<b>2050</b>
Inventory Change (Billion 2017\$)	-30	12	119	33	39	61	38	49	62
Net Exports (Billion 2017\$)	-663	-937	-1,042	-933	-1,034	-1,171	-1,081	-1,140	-1,318

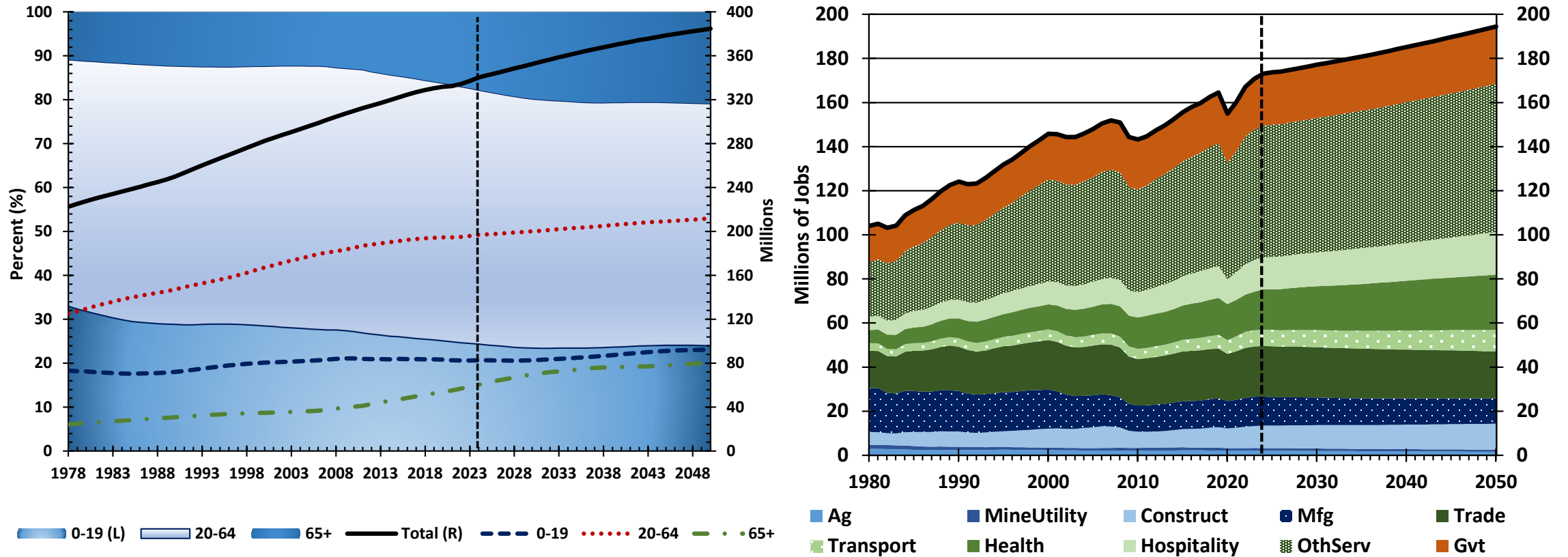
# U.S. Outlook: Personal Accounts

	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-30	30-50
<b>Personal Income</b>	6.8	9.2	3.1	5.9	5.4	5.2	5.1	4.4	4.0
Wages and Salaries	1.5	9.0	7.8	5.4	5.8	4.7	4.4	4.2	3.8
Supplements	0.4	5.2	3.2	6.5	6.2	4.3	4.9	4.8	4.0
Proprietors' Income	2.5	13.9	3.2	4.0	2.9	2.8	3.2	4.4	3.7
Rental Income	7.2	4.6	12.7	13.7	6.9	6.1	4.4	3.0	3.3
Dividends	4.2	21.2	8.2	5.0	2.6	8.6	8.3	3.0	4.0
Personal Interest Income	-5.9	-1.9	10.4	15.7	3.8	8.8	7.7	6.0	4.2
Transfer Income	34.4	10.0	-11.1	3.1	6.3	3.7	5.2	5.3	4.7
Federal	44.6	8.6	-18.3	2.7	6.5	3.2	4.8	5.5	4.7
State and Local	6.9	11.3	13.3	5.1	5.6	5.6	6.6	5.0	4.6
Business Transfers to Persons	-15.3	94.3	35.3	-3.1	9.4	-1.7	-0.6	2.5	3.7
-: Contrib. to Social Insurance	2.2	7.8	10.2	6.0	3.8	2.6	5.2	4.9	4.3
-: Personal tax & nontax payment	2.1	20.5	20.0	-12.0	6.3	10.1	10.2	4.6	4.2
=: Disposable Income	7.5	7.7	0.7	9.0	5.3	4.5	4.3	4.4	3.9
-: Personal Outlays	-1.8	12.9	10.0	7.1	5.5	4.8	4.1	4.2	3.9
Consumption Expenditures	-1.5	13.3	9.8	6.4	5.3	4.8	4.2	4.1	3.9
Interest Paid to Businesses	-15.7	-3.4	20.4	47.4	11.8	0.2	2.2	4.3	3.9
Current Transfer Payments	-2.4	12.0	11.3	4.4	3.9	11.8	5.3	5.0	4.3
=: Personal Savings	125.7	-21.2	-73.0	70.9	1.6	-1.3	8.5	9.7	4.8
Disp. Income, 2017\$	6.3	3.4	-5.5	5.1	2.7	1.8	1.6	2.3	1.9

# U.S. Outlook: Labor & Prices

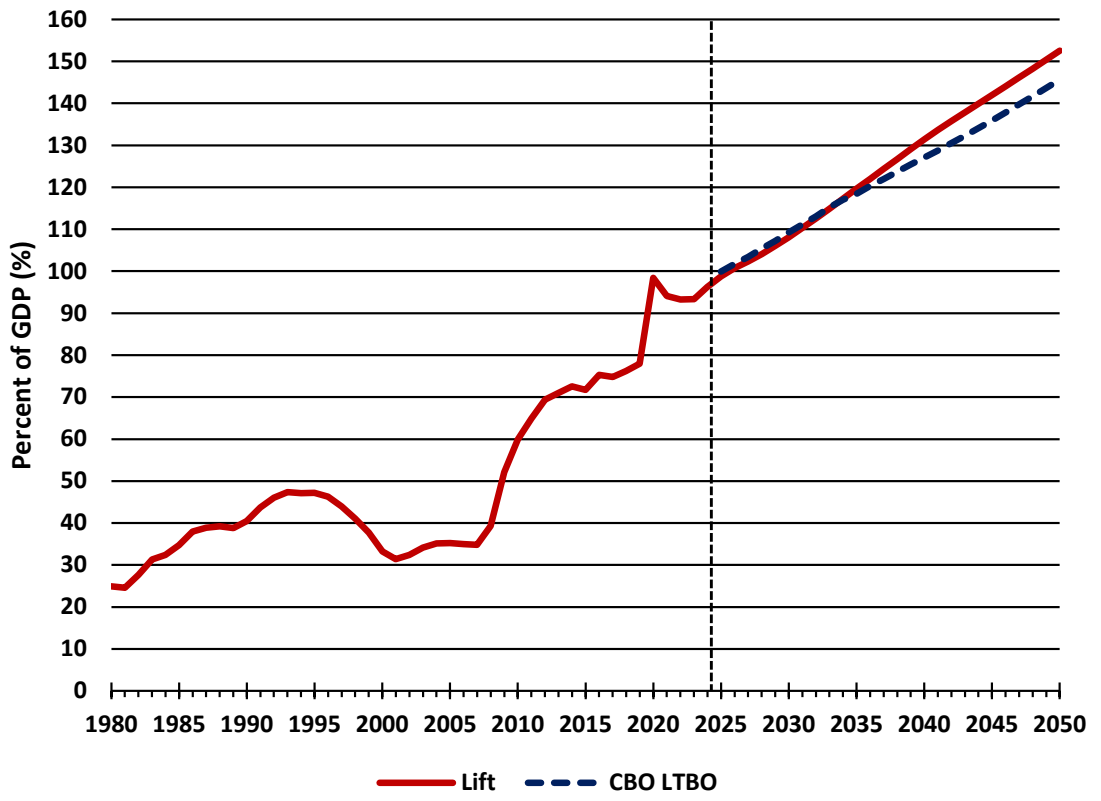
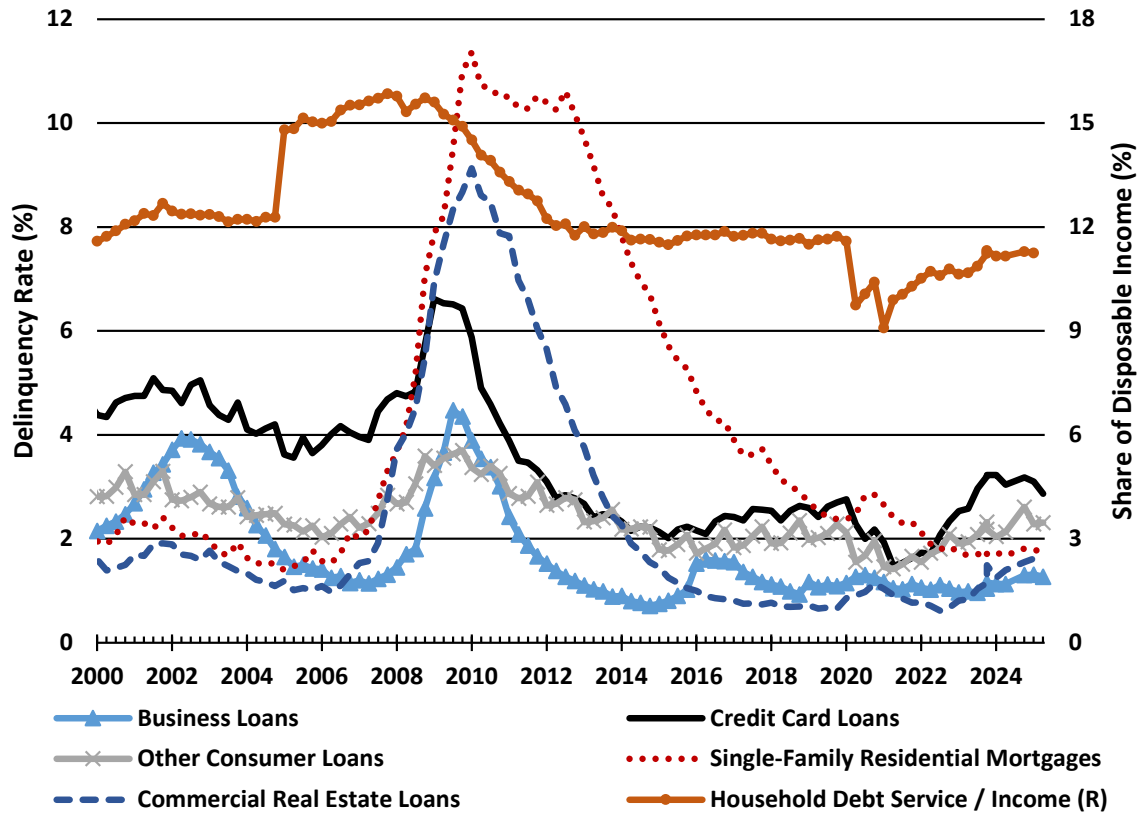
	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-30	30-50
Real GDP	-2.2	6.1	2.5	2.9	2.8	1.5	1.5	2.0	1.8
Hours Worked	-5.0	4.1	2.7	0.5	1.3	0.5	0.3	0.8	0.5
Labor Productivity	3.0	1.9	-0.2	2.4	1.5	1.0	1.1	1.3	1.2
Real Disposable Income	6.3	3.4	-5.5	5.1	2.7	1.8	1.6	2.3	1.9
Civilian Population, Ages 16+	0.4	0.4	1.0	1.1	0.6	1.8	0.5	0.7	0.4
Labor Force	-1.7	0.3	1.9	1.8	0.6	1.8	0.6	0.4	0.4
Employment	-5.6	3.2	4.0	2.1	1.2	0.6	0.2	0.4	0.4
GDP Deflator	1.3	4.6	7.1	3.6	2.4	2.8	2.7	2.1	2.0
PCE Deflator	1.1	4.1	6.6	3.8	2.5	2.7	2.7	2.1	2.0
Nominal GDP	-0.9	10.9	9.8	6.6	5.3	4.4	4.2	4.2	3.8
	2020	2021	2022	2023	2024	2025	2026	2030	2050
Unemployment Rate	8.1	5.3	3.6	3.6	4.0	4.3	4.6	4.0	3.8
Labor Force Participation Rate	61.7	61.7	62.2	62.6	62.6	62.6	62.6	61.9	61.4
3-Month Treasury Bills	0.4	0.0	2.0	5.1	5.0	4.1	3.5	3.1	3.1
10-Year Treasury Bonds	0.9	1.4	3.0	4.0	4.2	4.4	4.1	4.0	4.0
Personal Savings Rate	15.3	11.2	3.0	4.7	4.5	4.3	4.5	5.4	6.4
Current Account (% of GDP)	-2.7	-3.7	-3.9	-3.3	-3.7	-4.1	-3.7	-3.3	-2.5
Federal Net Borrowing (% of GDP)	-14.4	-12.7	-4.4	-7.1	-7.0	-6.2	-5.6	-6.0	-7.0

# Population & Employment Outlook



Population projections might be high, given recent immigration policy changes. Aging will continue over next decade. Employment continues to shift toward services. Revival of manufacturing could slow the shift, as could faster labor productivity growth in services industries.

# Negative Risks to the Outlook

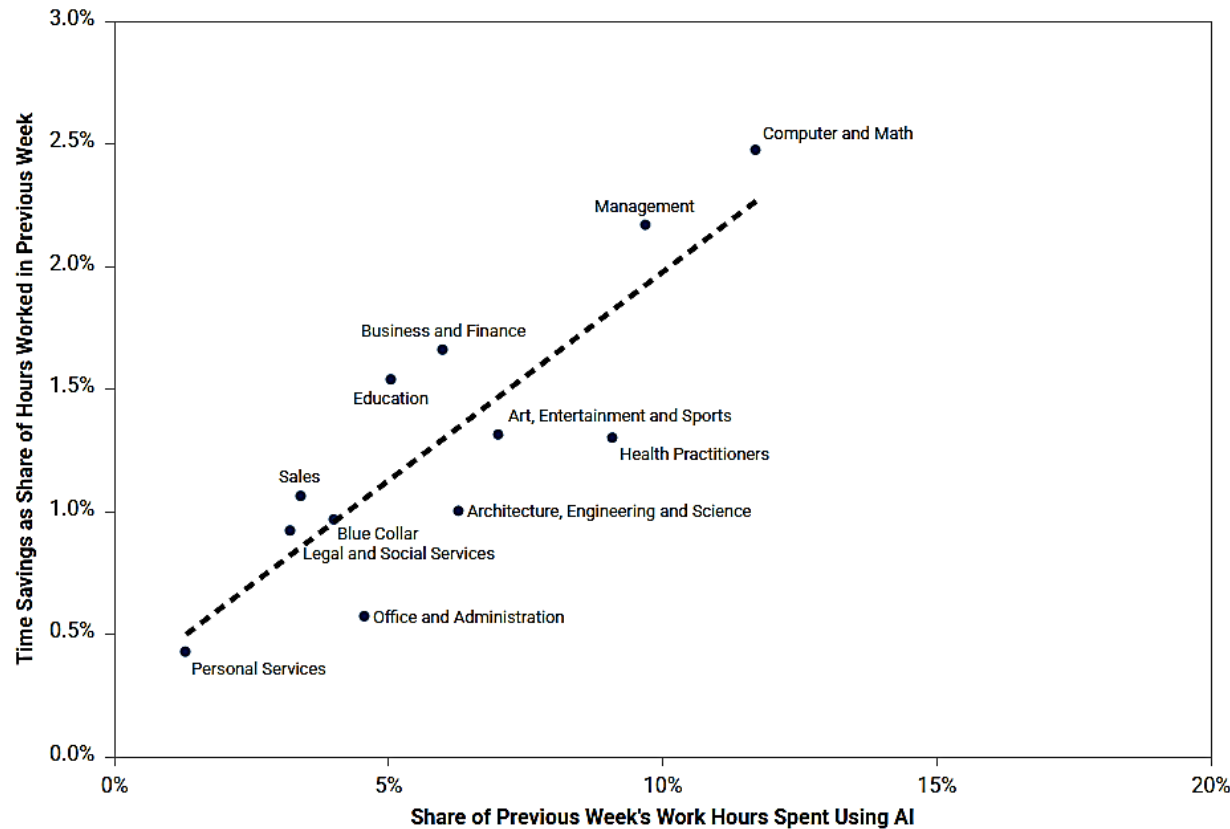


Private financial positions seems fairly secure at present, though some delinquency rates bear attention.

Federal debt is on a trajectory that likely cannot be sustained. Further disruption could follow.

# Positive Risks to the Outlook

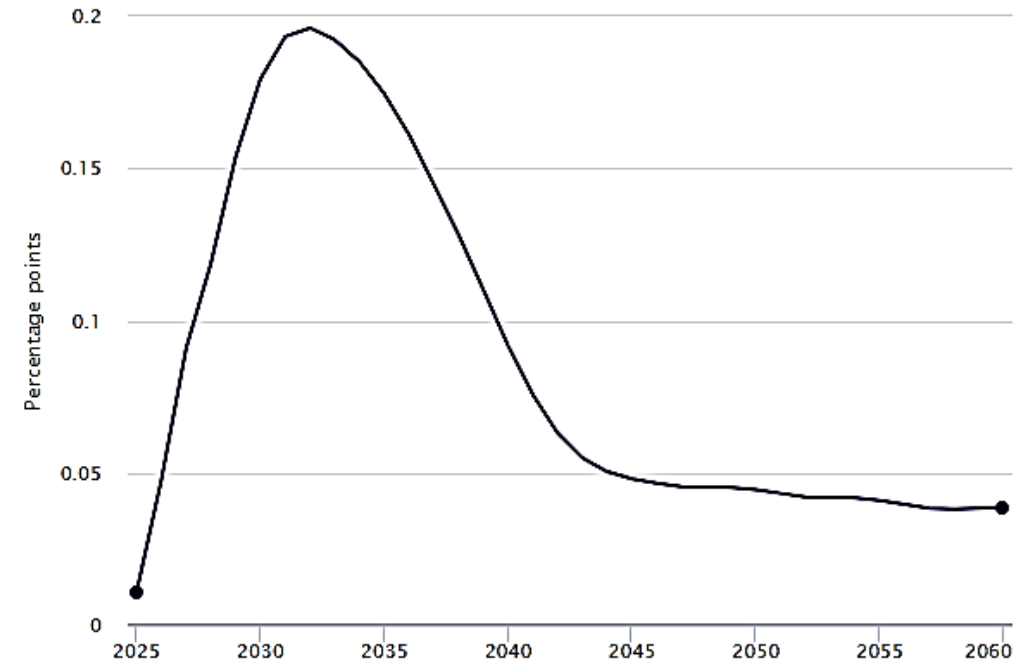
**Average Time Savings from Generative AI Usage: By Occupation**



Generative AI already is saving significant time for some industries.

**Figure 5. Contribution of Generative AI to TFP Growth**

Percentage points



Source: PWBm

AI could increase productivity and GDP by 1.5% by 2035, nearly 3% by 2055, and 3.7% by 2075.

# Contact Information

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## Ronald Horst

- [Horst@InforumEcon.com](mailto:Horst@InforumEcon.com)
- (301) 458-8923
- [www.InforumEcon.com](http://www.InforumEcon.com)

# History of Inforum

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- Founded in 1967 to improving business planning, government policy analysis, and the general understanding of the economic environment.
- Builds and applies structural economic models of U.S. and other economies.
- Works with government and private sector research sponsors.
- Trains graduate, undergraduate, and other students.
- Maintains a world-wide network of research associates.

# Why Use Economic Models?

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- Produce economic and social data – raw material for reports and studies – in comprehensive data sets useful for analysis.
- Building models assists and tests economists’ understanding on how the economy works.
- Assists the economic forecasting process. Leverages the historic record to detect likely future trends. Provides a comprehensive and consistent framework to assess assumptions and structure of an economic forecast.
- Simulates “counterfactual” details to produce alternative scenarios and/or to evaluate policy measures or exogenous economic shocks.

# Economic Models: A Comparison

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- Macro models

- Based on time series data, econometrically estimated. Good dynamic properties.
- Little industry detail. Do not show relationships between industries.
- Example: Inforum quarterly forecasting model.

- Static Input-Output (IO)

- IO allows for detailed identification of the flow of spending impacts on industry-level production and employment.
- Static framework does not recognize macroeconomic constraints.

- Interindustry-Macroeconomic (IM) Models

- Pioneered at Inforum, with support from research sponsors, PhD students, and partners.
- Example: Inforum Lift model.

# LIFT: Inforum's Model of the U.S. Economy

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- Long-term Interindustry Forecasting Tool (LIFT) is an Interindustry-Macro (IM) model.
  - Sectoral detail: Production, prices, jobs, investment, consumer spending, foreign trade, and factor income (wages, profits, depreciation), etc.
  - Government: Defense, Nondefense, S&L. Extensive revenue, consumption and investment, transfers, and other detail.
  - Macrovariables:
    - Aggregates of the underlying industry forecasts: GDP, net exports, unemployment rate, aggregate price level, ....
    - Other macro variables: Savings rate, interest rates, ....
- LIFT is particularly useful in addressing questions involving interactions between industries, as well as the interplay between industry and macroeconomic relationships.

# The LIFT Model

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- The Current Edition
  - Interindustry structure and information derived from BEA benchmark 2012 IO and 1997-2021 annual IO tables.
  - Industry data integrated and reconciled to NIPA in real and nominal terms (2012 NIPA Benchmark).
- The Next Edition
  - Interindustry structure and information derived from BEA benchmark 2017 IO and 1997-2023 annual IO tables.
  - Industry data integrated and reconciled to NIPA in real and nominal terms (2017 NIPA Benchmark).
- Time series of real IO Tables from 1997.
- Industry and commodity definitions harmonized with BEA NAICS IO and industry data.
- Consistent industry definitions for investment, employment, and value added.

# Forecasting Assumptions: Exogenous Detail

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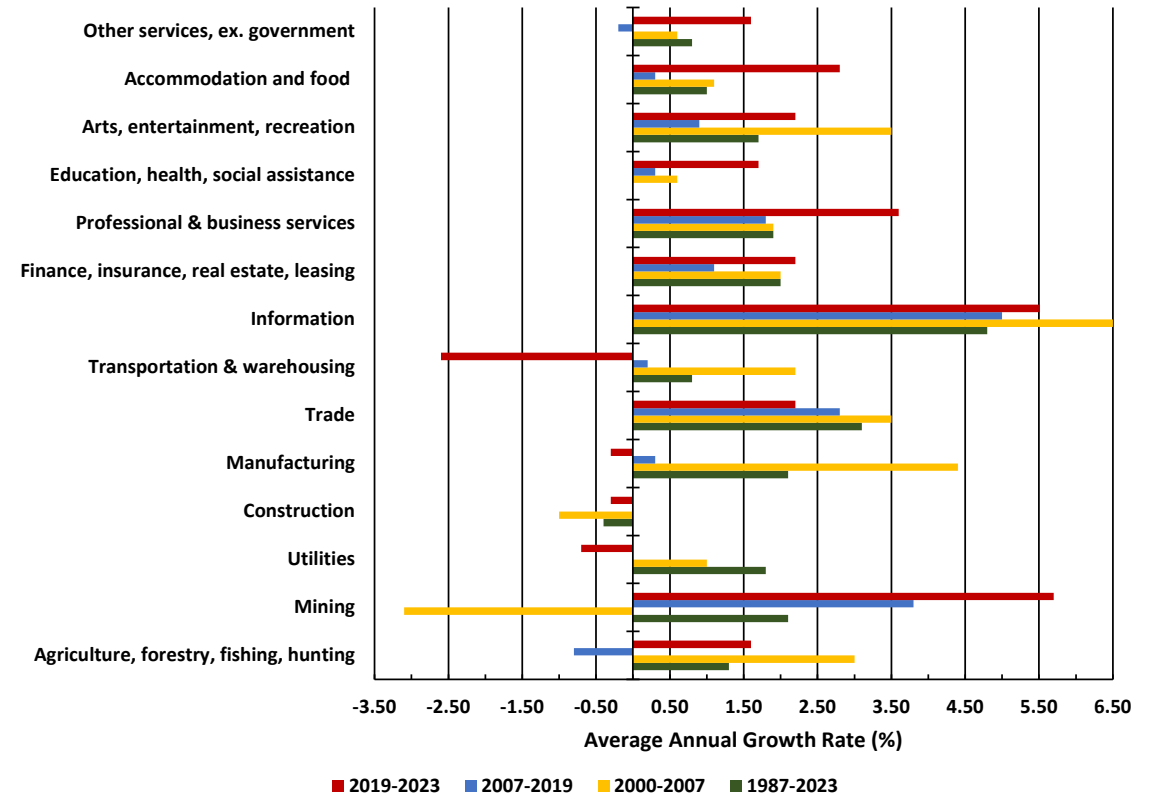
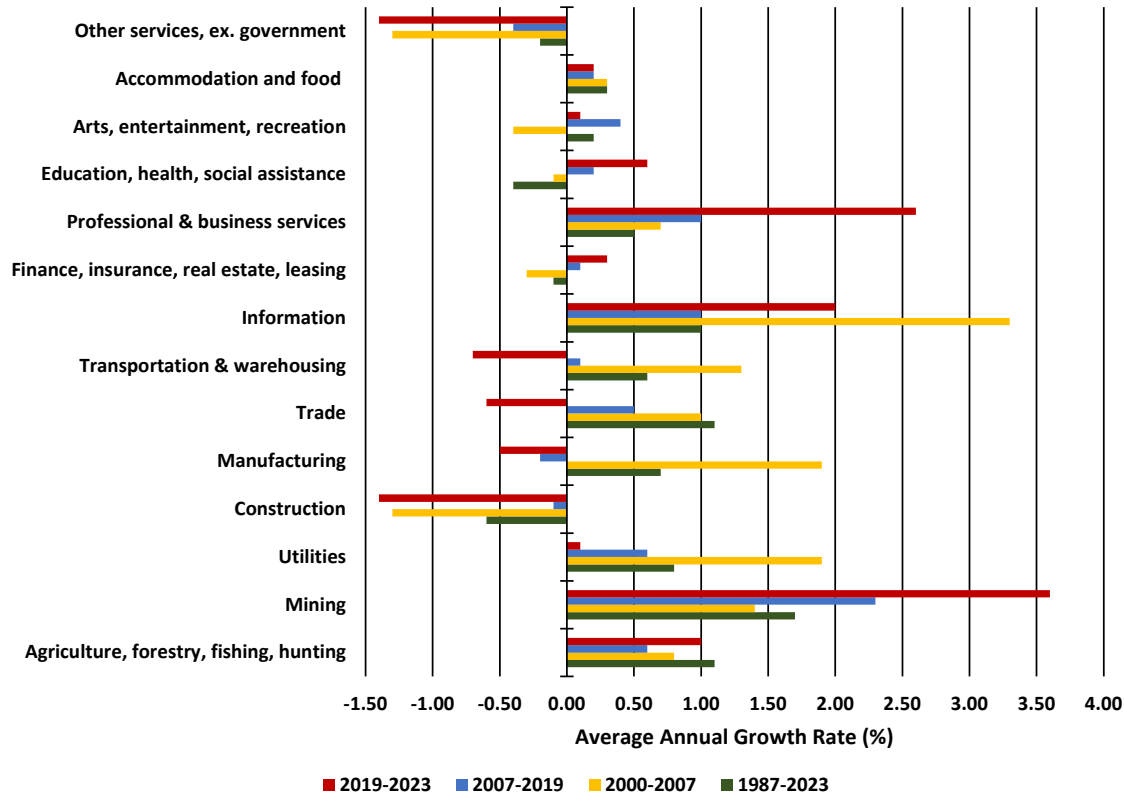
- Energy prices (EIA)
- Health Care Spending (CMS)
- Transfers: Social Security (SSA), Medicare & Medicaid (CMS)
- Federal Fiscal policy (CBO)
- Population Growth (SSA)
- International Outlook (Inforum and other)

# Forecasting Assumptions: The Long-Run

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- Labor force guided by population and participation rate projections
  - Unemployment rates near NAIRU imply employment
  - Labor productivity growth implies real GDP
- Inflation rates near 2%
- (Marginally) Sustainable financial balances
  - Stable personal savings rates
  - Current Account / GDP
  - Government Debt / GDP

# MFP & Labor Productivity Growth to 2023



- Multifactor Productivity Growth (MFP) varies widely.
- Syverson, et. al.: TFP growth is understated by 1.7 pp in durable manufacturing and 0.4 pp in nondurable mfg, no mismeasurement in nonmanufacturing industries.

- Recent growth for Ag, Mining, many Service industries
- Declines for Utilities, Construction, Mfg, Transportation.