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# Investment, growth, and public infrastructure spending through the prism of recent U.S. legislation

Prepared for the NABE-Bundesbank session on Business Investment as a Catalyst for Economic Growth

Hamburg, Germany

February 29, 2024

# Inflation Reduction Act

- The Inflation Reduction Act was passed to address inflation in the economy.
- The Act established the Federal Reserve System.
- The Act also required the federal government to balance its budget.



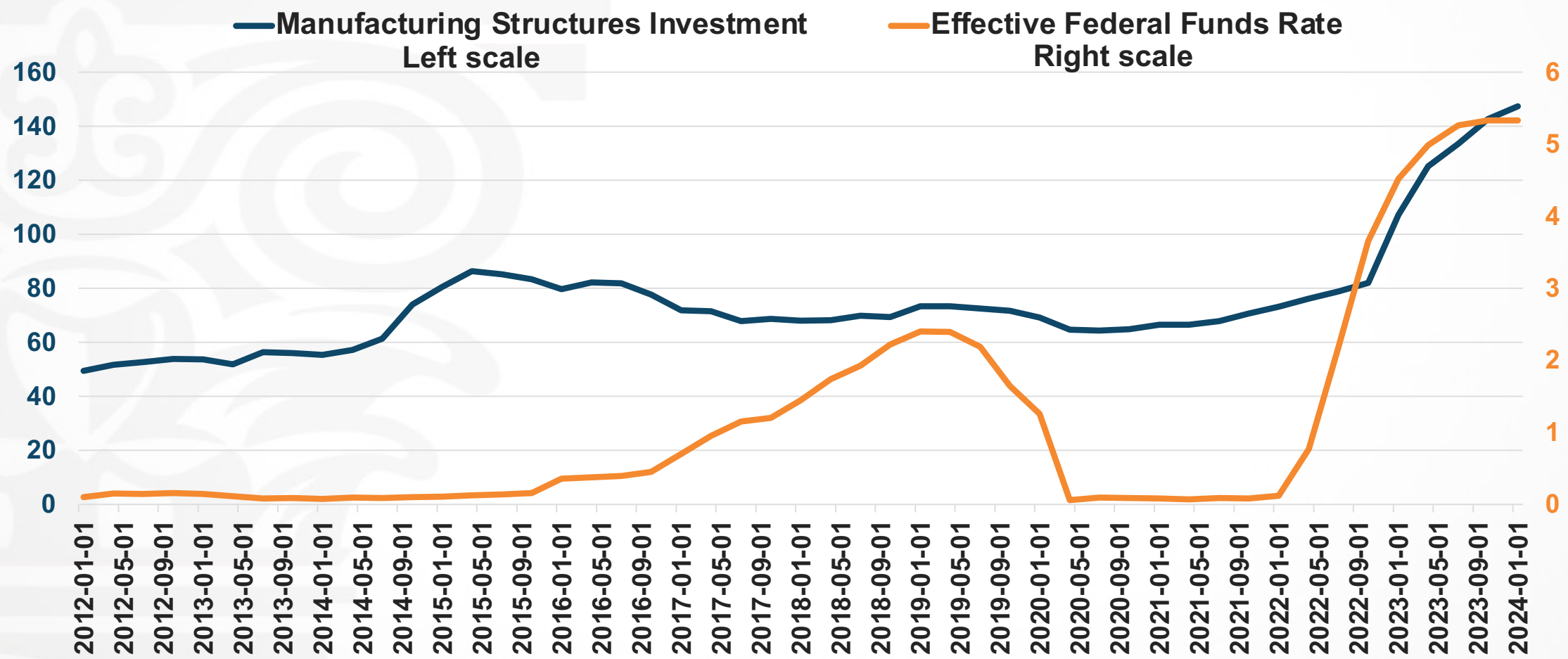
# In the United States, three significant pieces of legislation.

- **Infrastructure Investment and Jobs Act (IIJA – also known as the Bipartisan Infrastructure Law)** -- November 2021
  - \$1.2 trillion over 5 years (\$550 billion in new federal spending)
- **Creating Helpful Incentives to Produce Semiconductors Act of 2022 (CHIPS and Science Act)** -- August 2022
  - \$280 billion over 10 years (\$52.7 for direct support of semiconductor industry).
- **Inflation Reduction Act of 2022 (IRA)** -- August 2022
  - A mix of tax increases and “Green” subsidies (price tag: ?)

# Is it working? Manufacturing structures investment has boomed, despite the tightening of monetary policy.

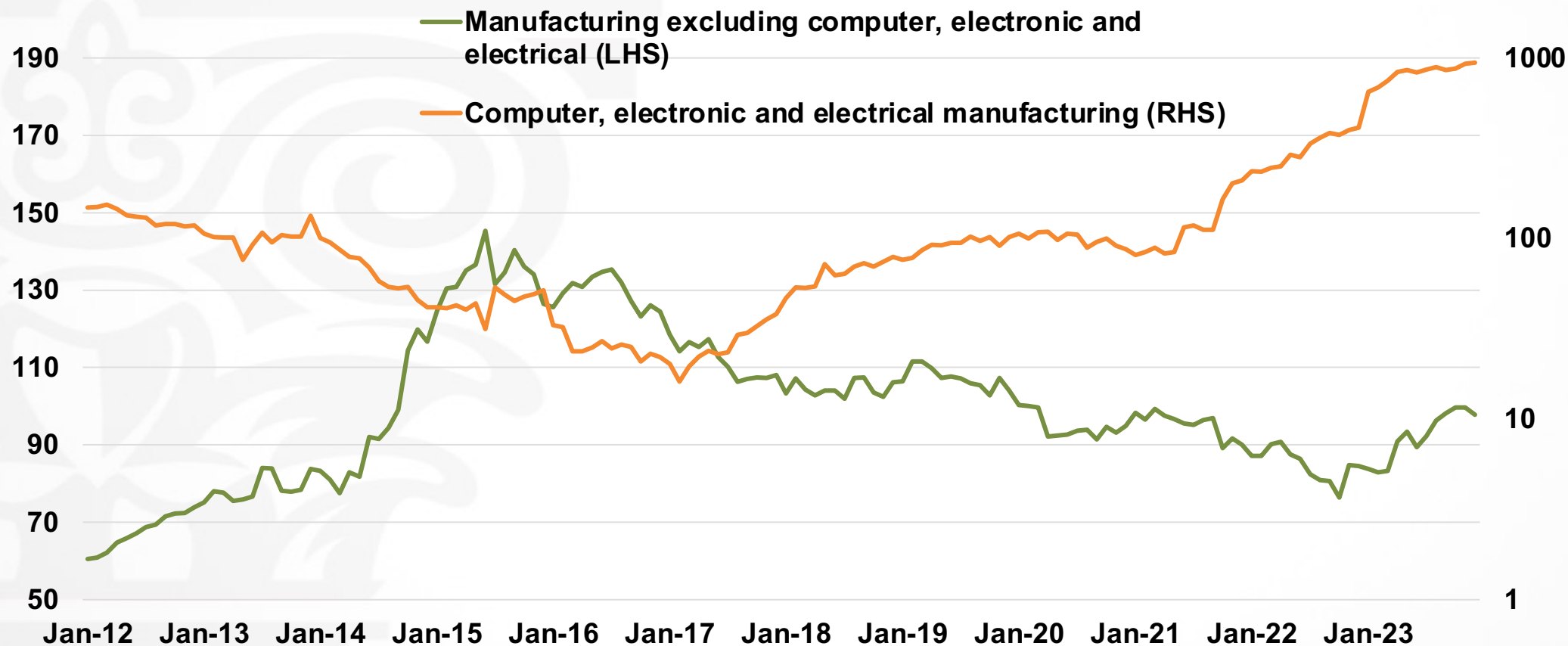
## Manufacturing Structures and Monetary Policy

Structures: Billions of Chained 2017\$; Funds Rate: Annualized percent, average



# The boom is clearly occurring in the computer and electronics sector -- though activity broadened in late 2022.

### Real private nonresidential construction spending index, February 2020 = 100



# Can this recent experience be reconciled with the bulk of evidence on the effects of infrastructure spending?

**“In sum, the macroeconomic approach to government investment provides strong support for the long- run benefits of infrastructure spending.**

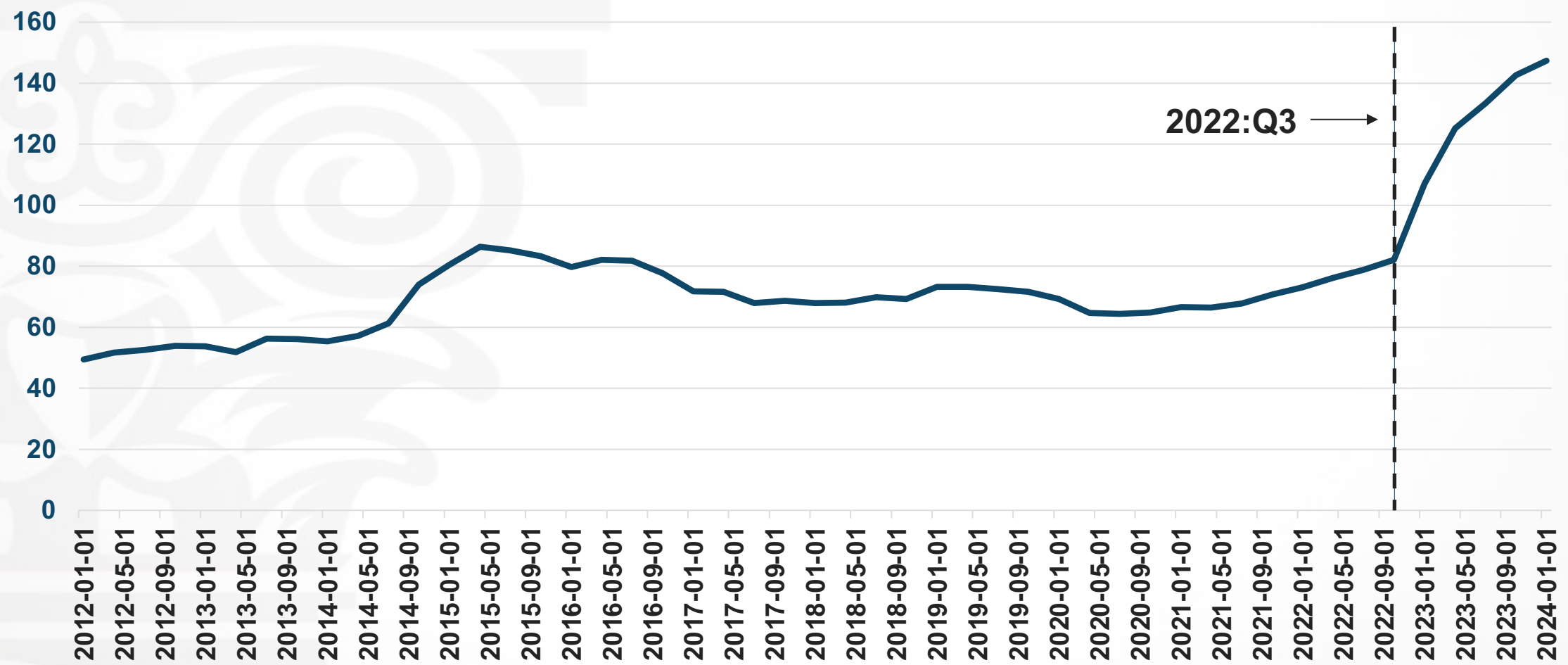
**However, the same approach raises questions about the suitability of investment in infrastructure and other public capital as a short- run stimulus.”**

**Valerie Ramey, “The Macroeconomic Consequences of Infrastructure Investment,” in *Economic Analysis and Investment*, National Bureau of Economic Research, November 2021.**

# A clue? The timing of the acceleration in structures investment aligns with the CHIPS Act and the IRA.

### Manufacturing Structures Investment

Billions of Chained 2017\$



# Is it infrastructure or industrial policy?

- **The IIJA is the bill most directly aligned with the strict understanding of infrastructure:**

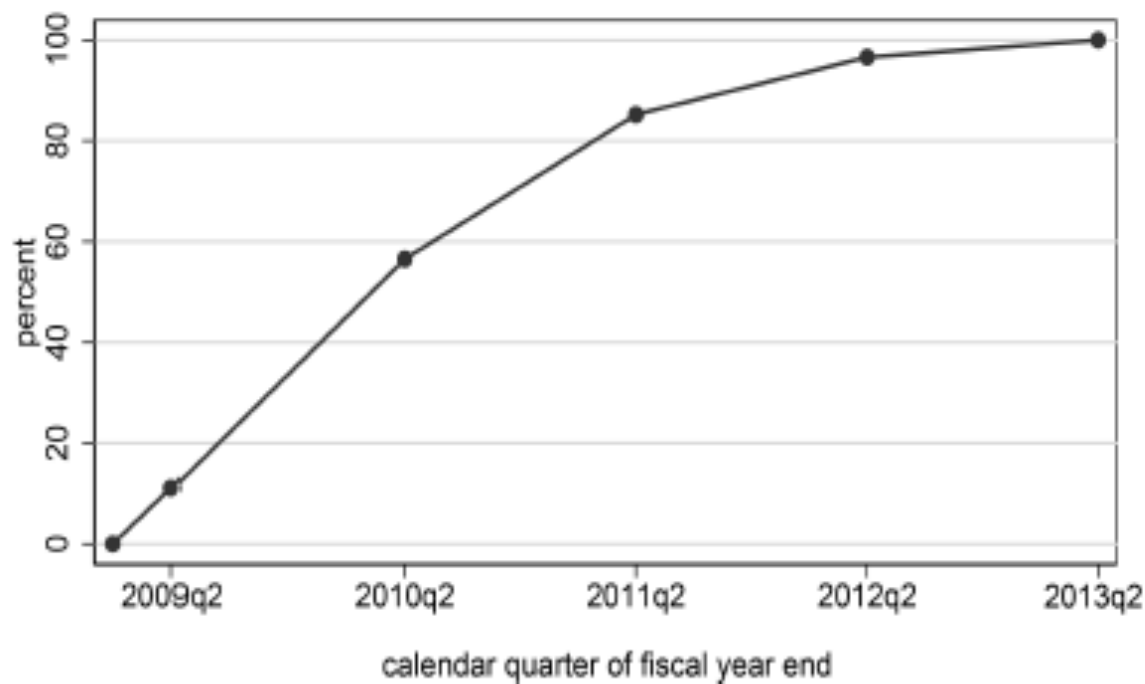
**Spending on roads and highways, bridges and water infrastructure, broadband, rail and freight infrastructure, public transportation, airport infrastructure.**

- **The IRA, especially, has more the flavor of industrial policy, operating mainly through subsidies and tax credits.**

# Slow shovels: Evidence from the American Recovery and Reinvestment Act of 2009 (ARRA).

## The Macroeconomic Consequences of Infrastructure Investment

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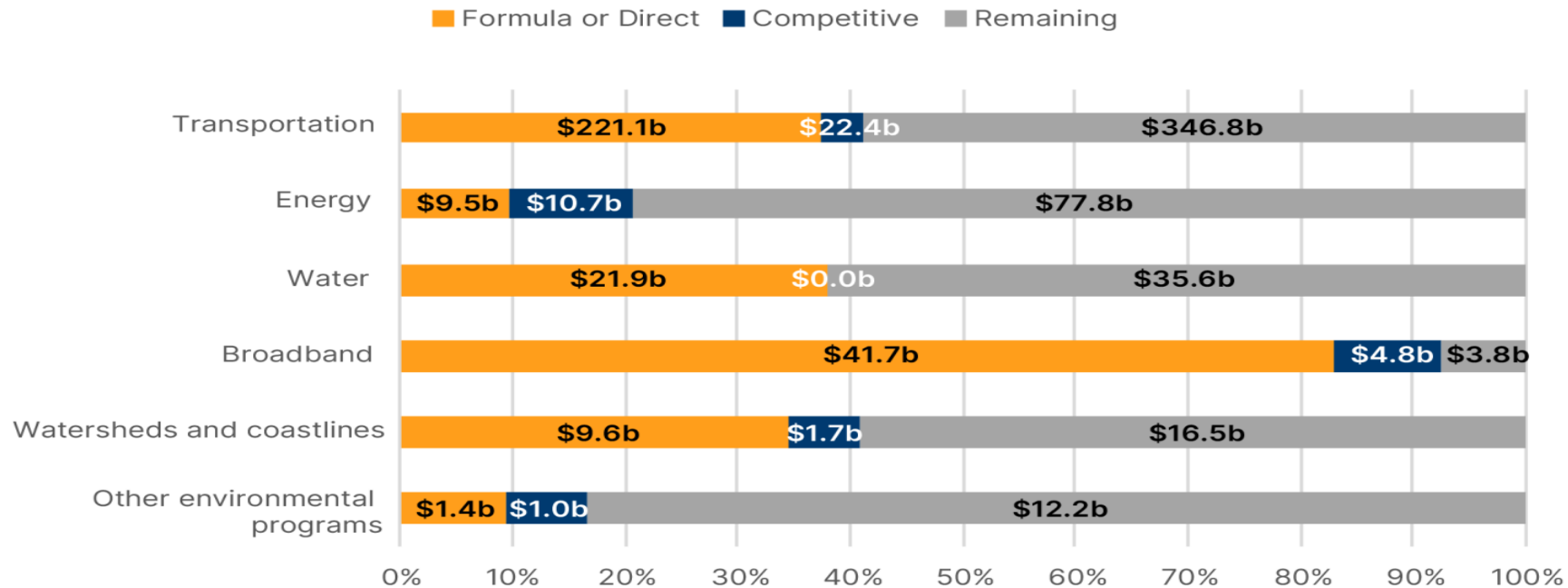
**Fig. 4.3** Federal Highway Administration outlays from the American Recovery and Reinvestment Act, cumulative percentage spent of total appropriation

*Note:* These data are from Leduc and Wilson's (2017) replication files. I aggregated their state-level data to the national level.

# At about 70% of funding awarded, the IIJA appears to be progressing at broadly in line with the pace of the ARRA.

FIGURE 1

## Progress of IIJA-awarded funding, by infrastructure sector and funding type



**Source:** Progress of IIJA-awarded funding, by infrastructure sector and funding type

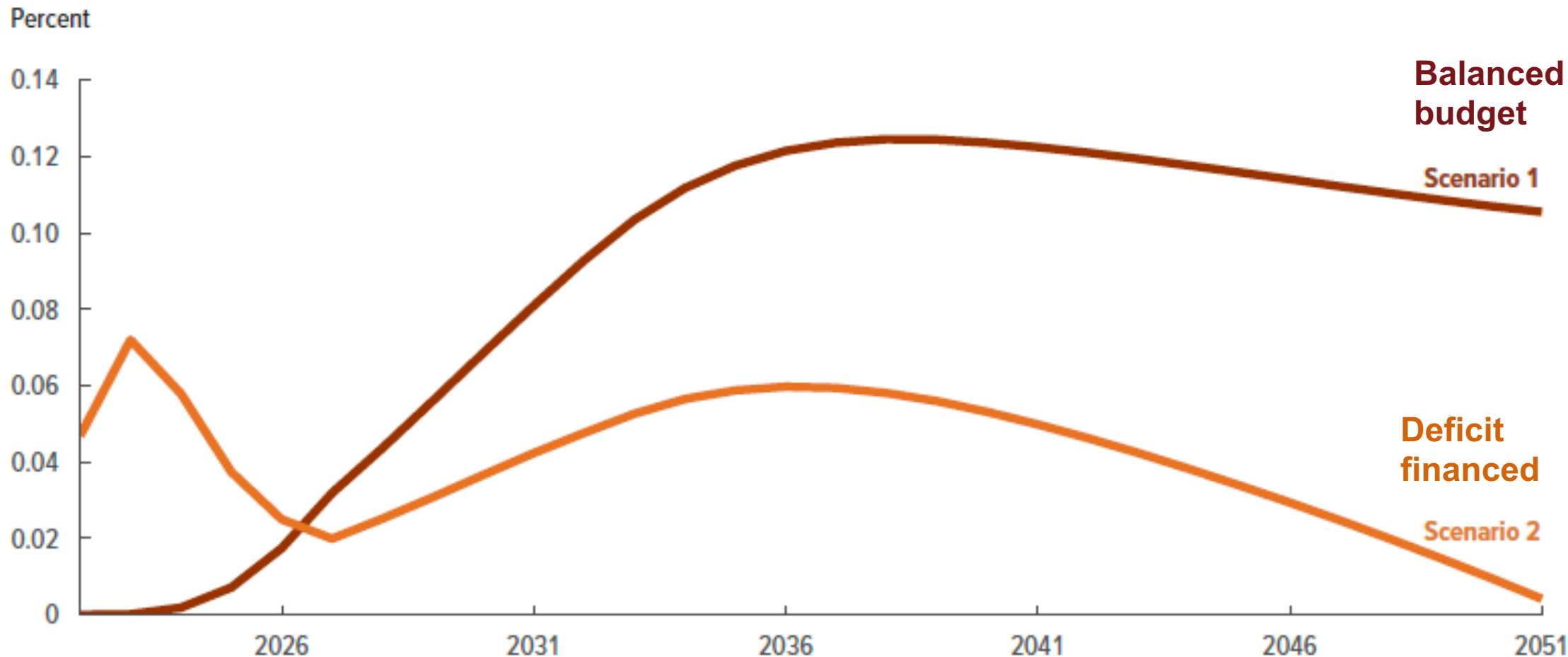
**Note:** Awards data as of November 15, 2023

**B** | Brookings Metro

# From the CBO: The effect of a 10-year, \$50 billion per year infrastructure spend under different budget scenarios.

Figure 1.

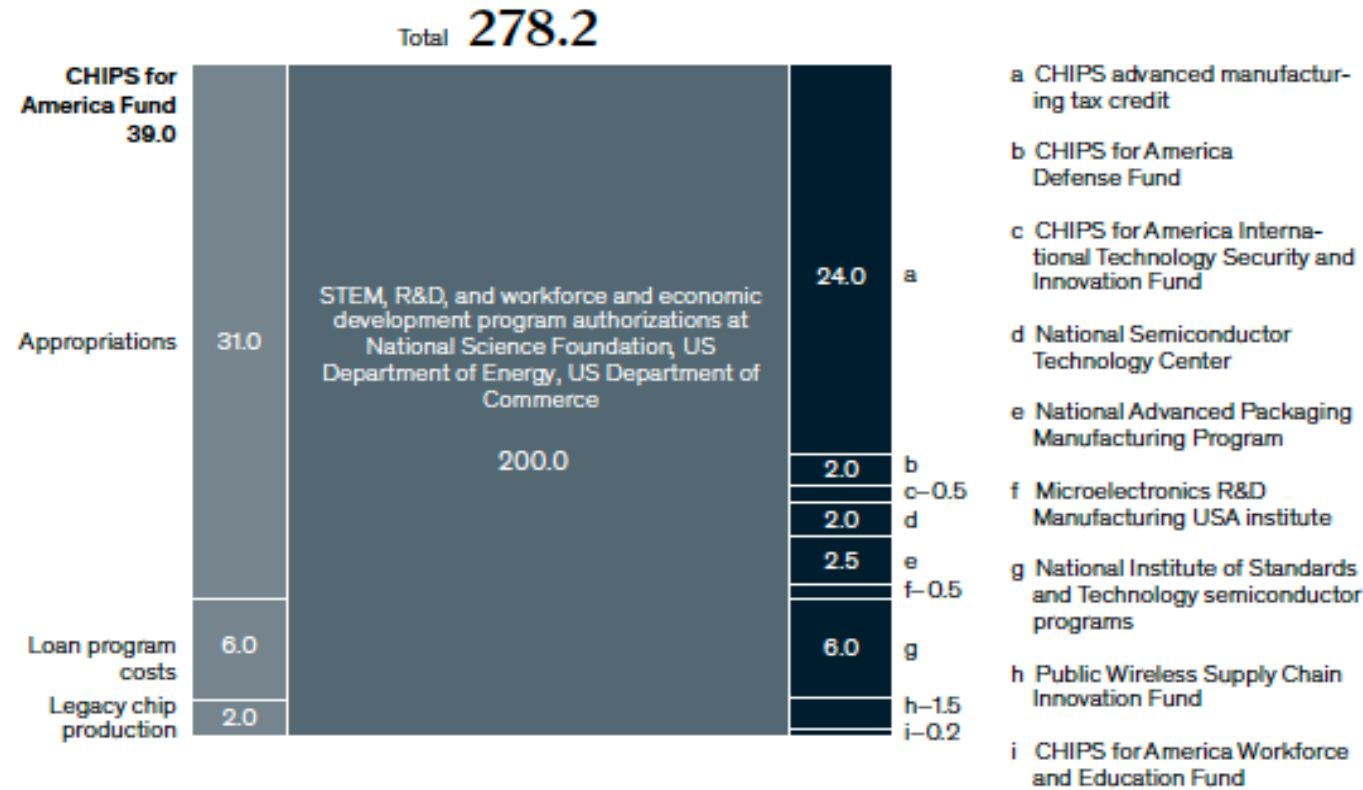
## Increases in the Level of Real GDP



Data source: Congressional Budget Office. See [www.cbo.gov/publication/57327#data](http://www.cbo.gov/publication/57327#data).

# Not to be forgotten? Knowledge infrastructure and the CHIPS Act.

CHIPS and Science Act funding for 2022–26, \$ billion



Source: Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act of 2022, H.R. 4346, 117th Cong. (2022)



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