

# National Forecast in REMI Models

Regional Economic Models, Inc.

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# Agenda



Introduction

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Data Sources

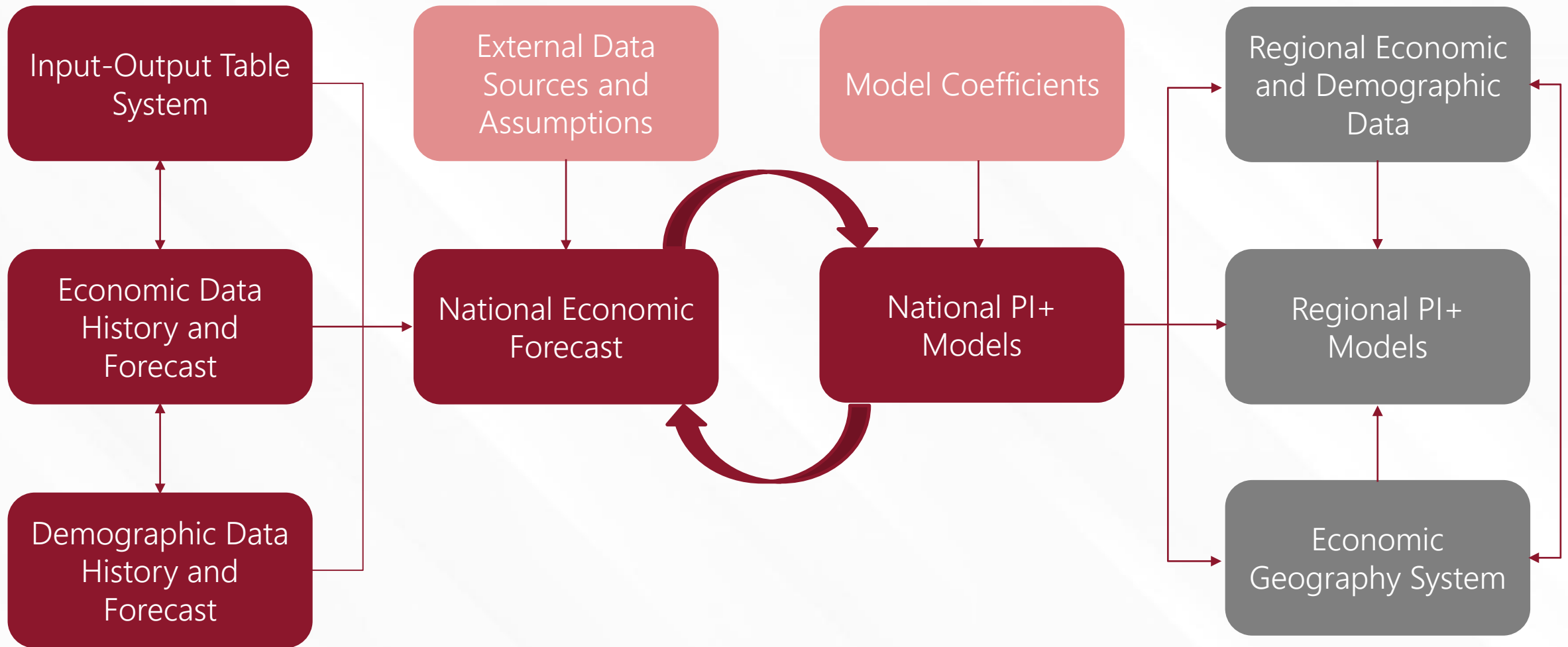
Forecast Updates During the Pandemic

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Q&A

*what does **REMI** say?<sup>sm</sup>*

# Overview of Model Building System



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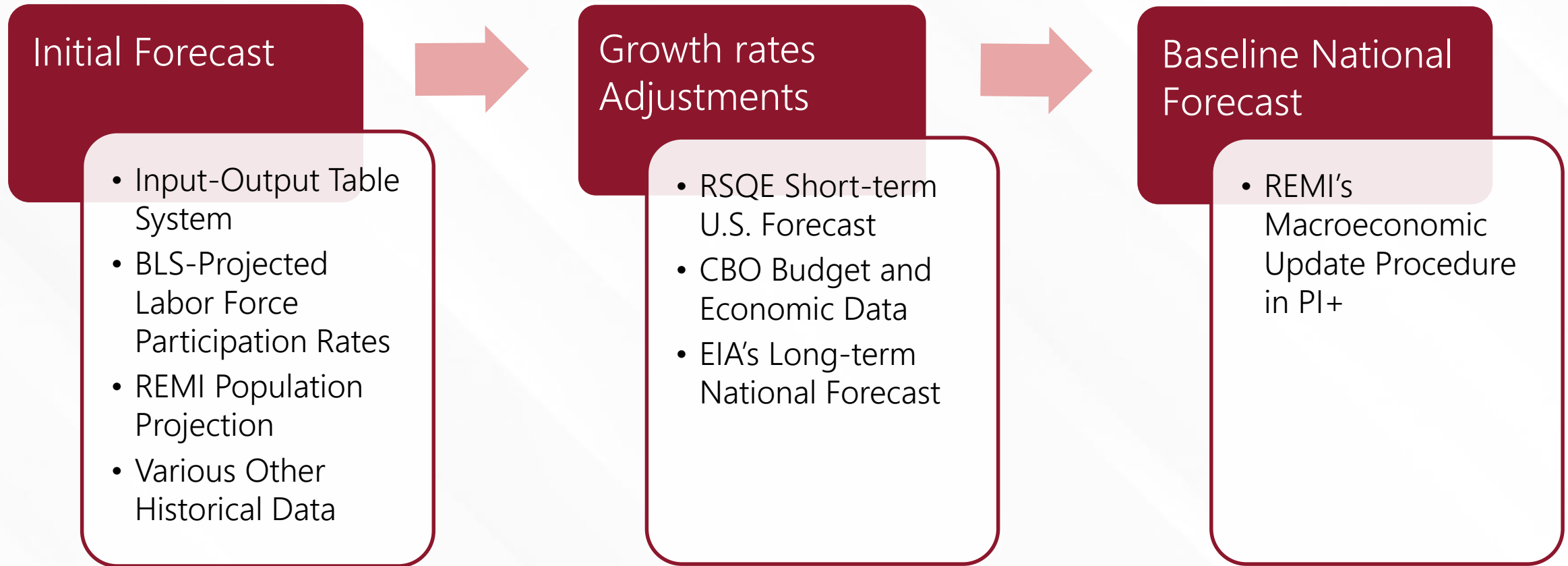
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# National Economic Forecast



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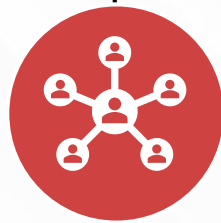
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## National Economic Forecast Data Sources



### REMI Demographic Data Projections

Population and Labor Force from the Census Bureau, BEA, and BLS



### BLS Employment Projections

Input-Output Tables and Employment



### RSQE Short-term National Forecast

GDP Components, Personal Income and Employment



### Long-term Economic Forecast by CBO and EIA

Macroeconomic Indicators

# REMI Demographic Data Projections



- Population and Labor Force Projections to 2060
- Data Sources:
  - The Census: National Projections of Fertility Rates, Survival Rates, Life Expectancy, International Migration, etc.
  - The BLS: Projections of Labor Force Participation Rates
  - The BEA: Population



# BLS Employment Projections

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- The baseline national forecast is primarily based on the BLS Employment Projections.
- Based on 2017 NAICS and derived from input-output data initially developed by the BEA.

# BLS Employment Projections



## Inter-Industry Relationships

- Historical and projected input-output tables
- In real and nominal dollars
- 205 industries and 153 detailed final demand sectors
- Output by industry

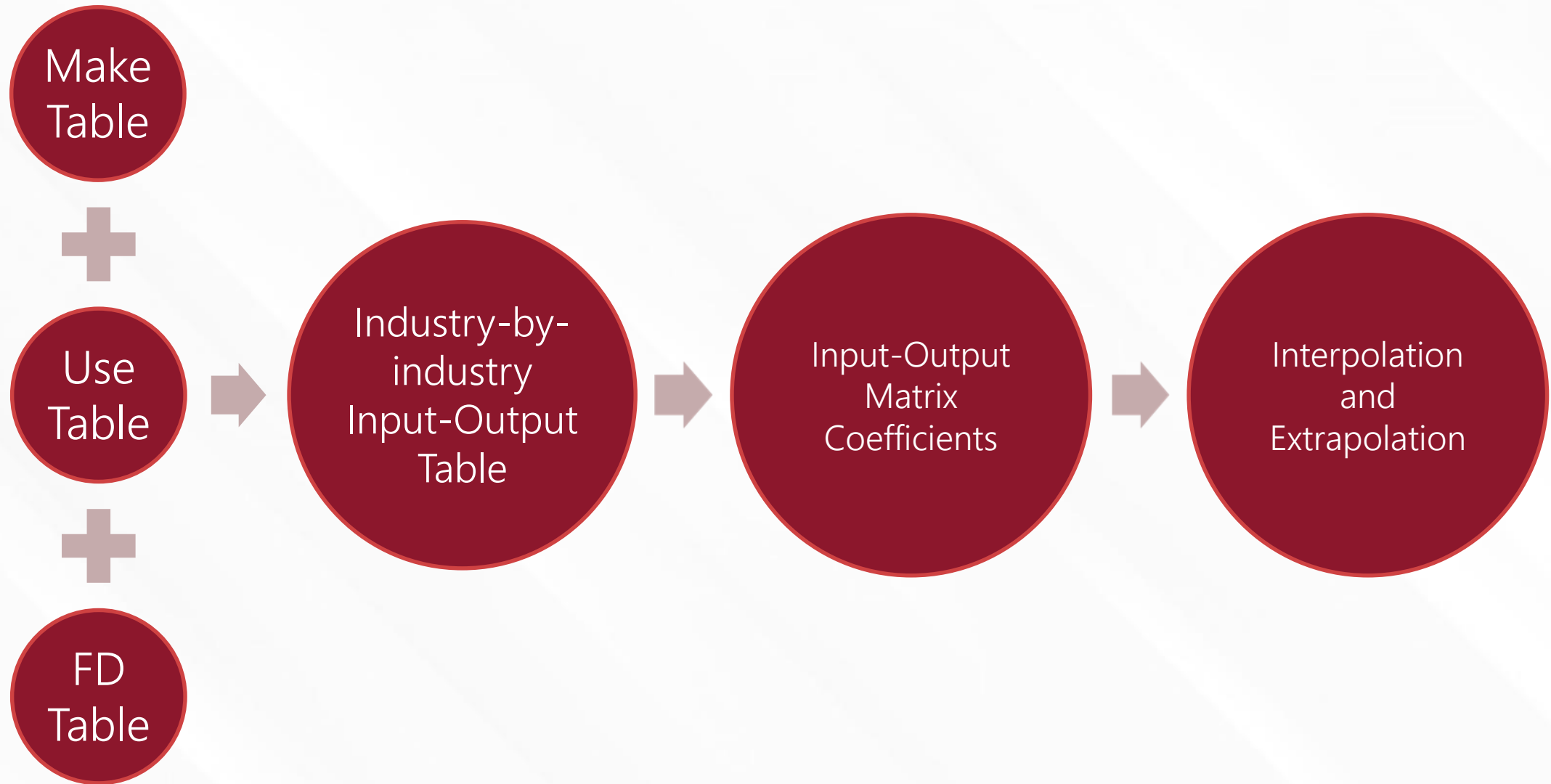
## Employment

- Industry employment
- Occupational employment

## Labor Force

- Labor force participation rates

# BLS Input-Output Tables



# RSQE U.S. Forecast

- Short-term forecast from The U.S. Economic Outlook.



## GDP

- Consumption
- Private investment
- Government Expenditures
- Exports and Imports



## Personal Income

- Wages and Salaries
- Supplements to Wages and Salaries
- Proprietors' Income
- Rental, Dividends and Interest Income
- Transfer Payments



## Other

- Employment
- PCE Price Index



## Budget and Economic Data

- 10-Year Budget Projections
- Long-term Budget Projections
- 10-Year Economic Projections
- Long-term Economic Projections



## Variables

- GDP Components
- Personal Income Disposition
- Labor Productivity
- Transfer Payments by Category

# AEO Forecast

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- Annual Energy Outlook by the EIA
- Long-term Forecast to 2050
- Variables:
  - GDP Components
  - Employment
  - Labor Productivity

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# National Forecast Updates



- REMI has provided national forecast updates since the start of the Covid-19 pandemic.
- Forecast Updates are available on <https://www.remi.com/forecast-updates/>

## V2.4

- March 2020 Forecast Update
- May 2020 Forecast Update
- September 2020 Forecast Update
- November 2020 Forecast Update

## V2.5

- May 2021 Forecast Update



# Make Your Own National Forecasts



- REMI offers tools to make your own national forecast in the model.

### Calibration

**Alternative Model**  
Specify alternative model settings for specific equations and solution criteria.

**Demographic Assumptions**  
Specify alternative assumptions for creating the national demographic forecast.

**Employment Update**  
Update industry employment for the forecast period with values from an alternative source. The growth rate of the inputted values from the base year will be applied to the REMI last history year values to produce the forecasted values.

**Macroeconomic Values**  
Update components of final demand and/or personal income for the forecast period with values obtained from an alternative source. The growth rate of the inputted values from the base year will be applied to the last history year values in the REMI model to produce the forecasted values.

### Variables

**Recently Used**

**Full List**

**Model Linkages**  
Display a block diagram of the model structure. Clicking on an area of the diagram will show the policy variables related to that area.

**Model Blocks**  
Output and Demand

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- Effects of the Covid-19 pandemic
  - The Covid-19 pandemic caused a short but severe recession in 2020, which serves as the base year for the forecast.
  - Many industries will experience cyclical recovery from the Covid-19 recession in the short-term forecast, with industry output and employment normalizing and returning to their long-term growth pattern.
  - Structural change in the demand for some industries and occupations is expected as a result of economic changes driven by the pandemic. However, the pandemic's long-term impact remains highly uncertain.

## BLS Employment Projections

### 2020-30



- Employment growth rate: 0.7%



- Labor force participation rate reduce from 61.7% in 2020 to 60.4% in 2030.



- Real GDP increase at 2.3% annual growth rate.



- Real output is projected to increase at 2.2% annual growth.

### 2019-29



- Employment growth rate: 0.4%



- Labor force participation rate reduce from 63.1% in 2019 to 61.2% in 2029.



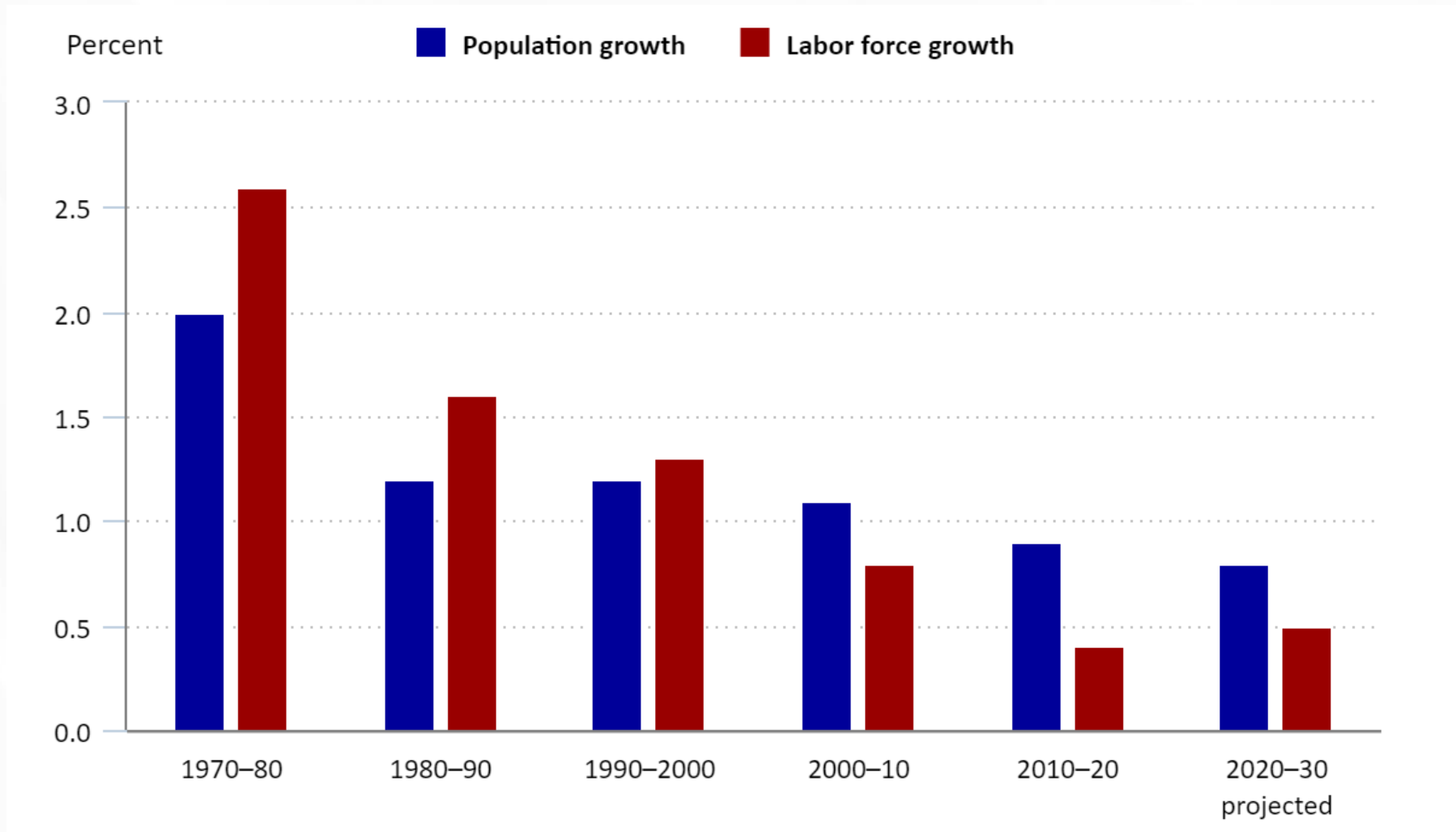
- Real GDP increase at 1.8% annual growth rate.



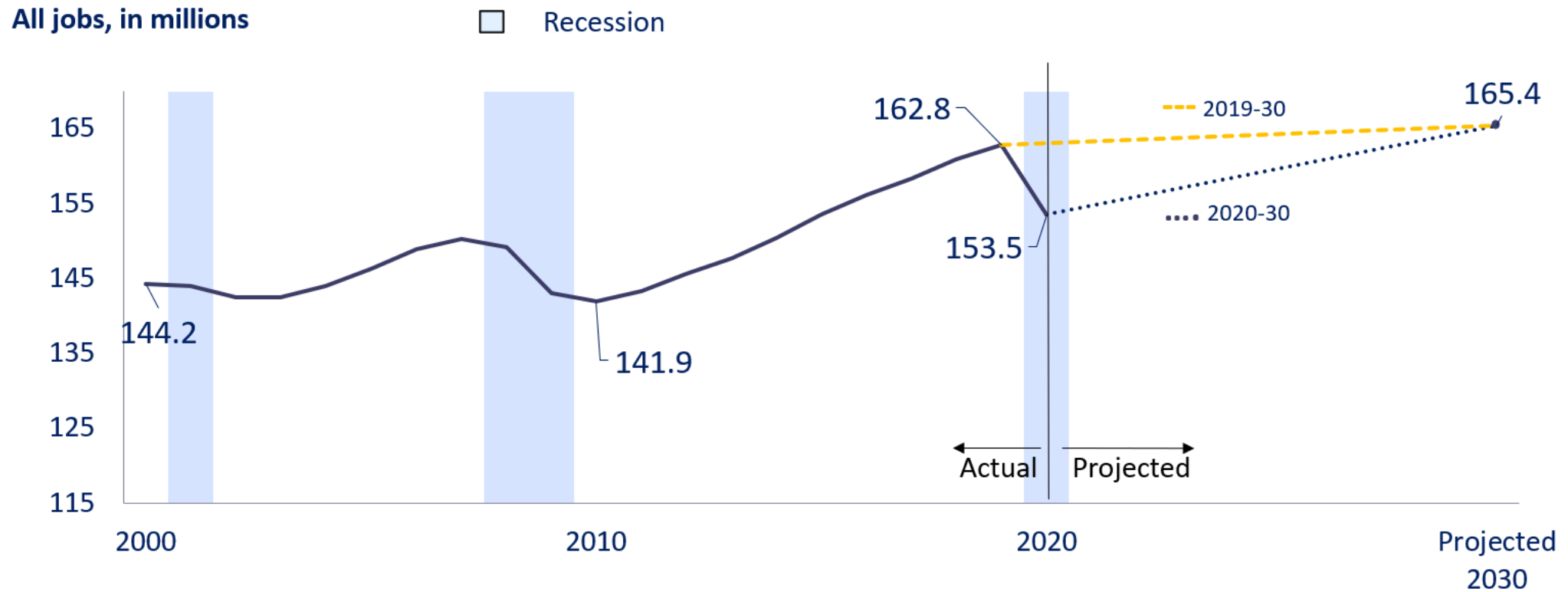
- Real Output is projected to increase at 1.8% annual growth.

# National Forecast v2.6

Population and labor force growth, 10-year compound annual average rates

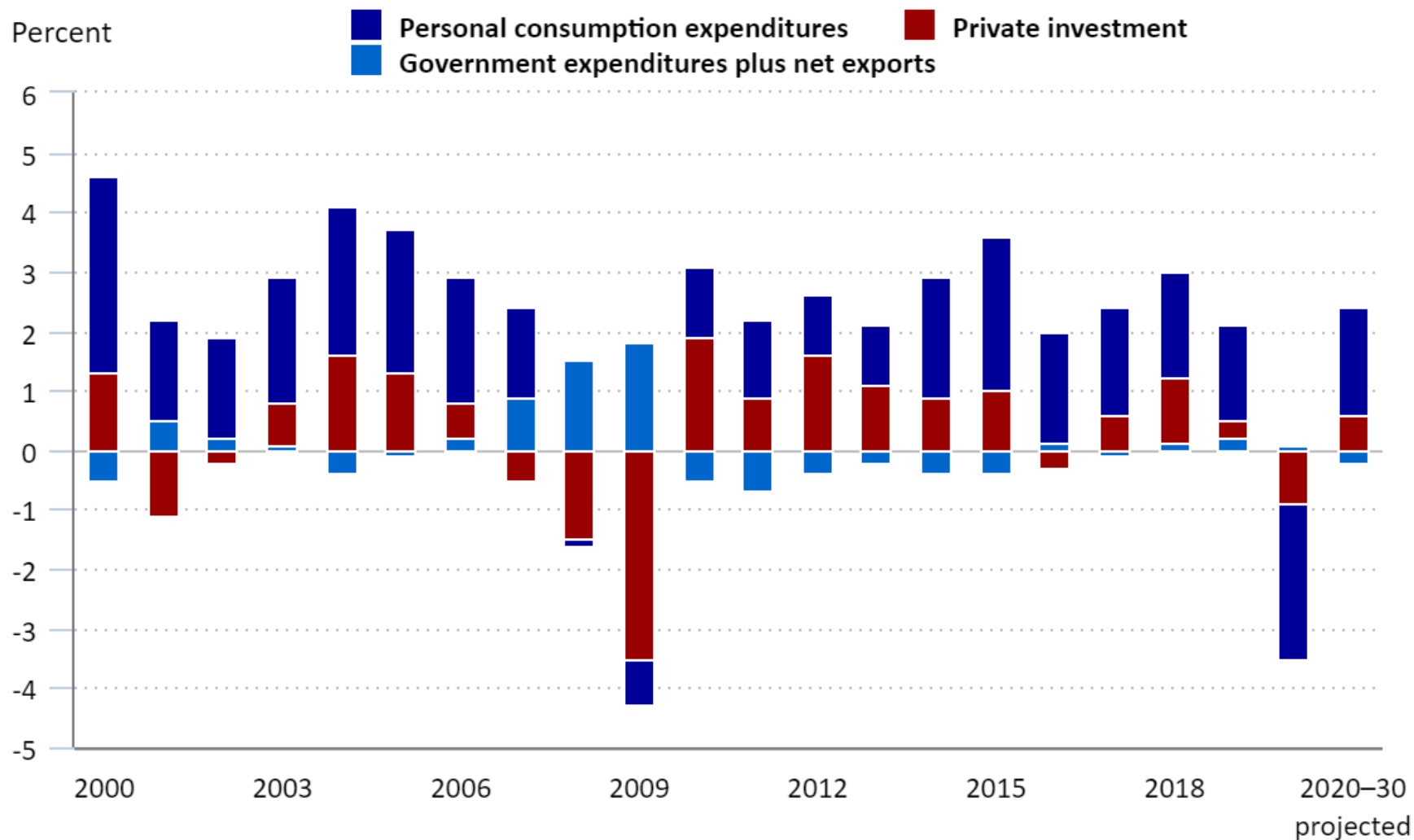


## Total Employment, 2000 to Projected 2030



# National Forecast v2.6

Contributions to growth in gross domestic product, 2000-20 history and 2020-30 projected



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# Thank you!

For more information, please contact  
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