



# 2030 Target Scoping Plan Update Economic Modeling—REMI

*January 15, 2016*



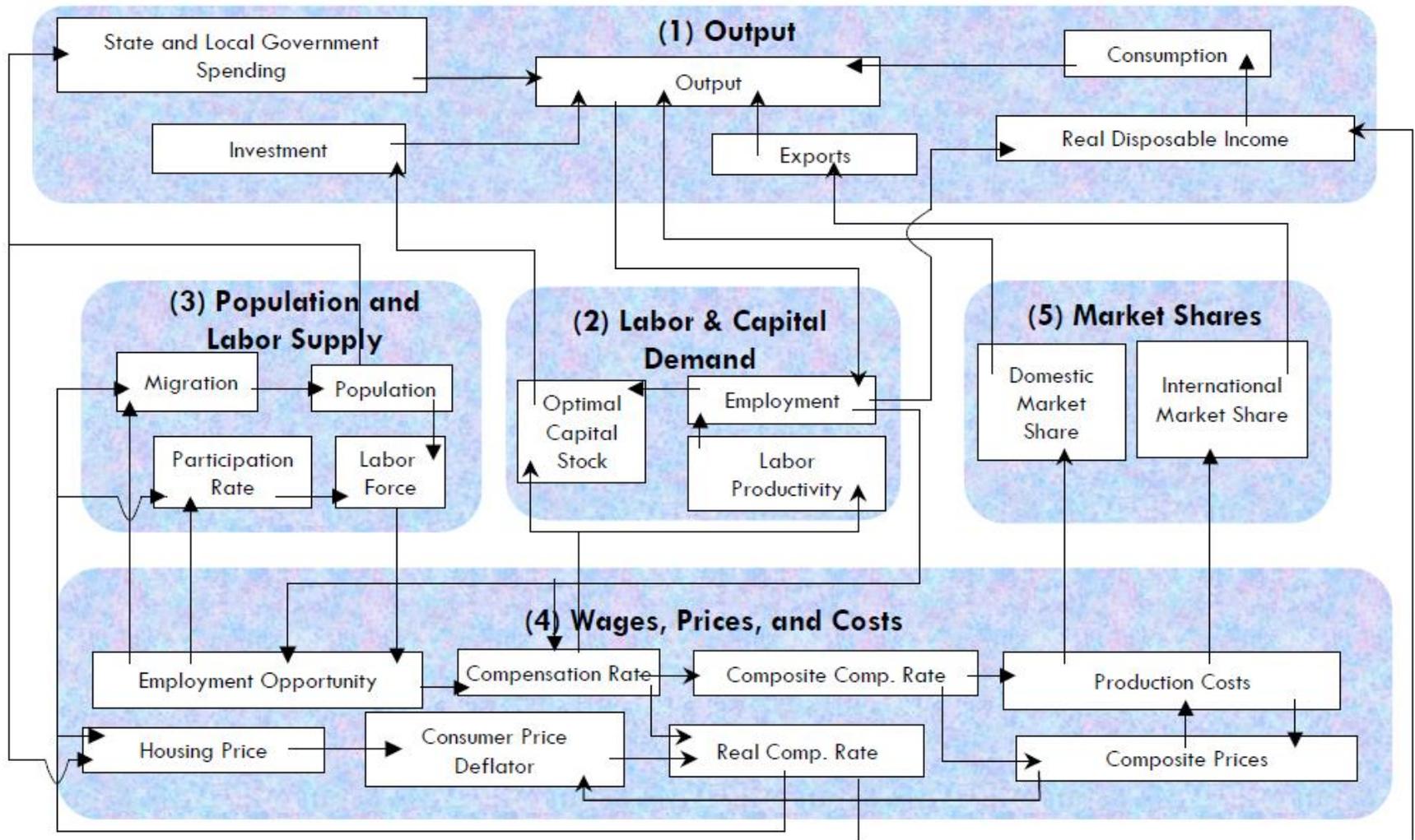
# REMI

- ▣ Regional Economic Models , Inc.
- ▣ Regional Model of the California Economy
- ▣ REMI is made available for economic impact analysis through a contract with the California Department of Finance
- ▣ Information at <http://www.remi.com/>

# REMI - Policy Insight+ v1.7

- ▣ REMI is a structural economic forecasting and policy analysis model
- ▣ REMI integrates input-output, computable general equilibrium, econometric and economic geography methodologies
- ▣ The model is dynamic: firms and individuals alter their behavior in response to changing economic conditions

# REMI Model Linkages



# REMI California Inputs

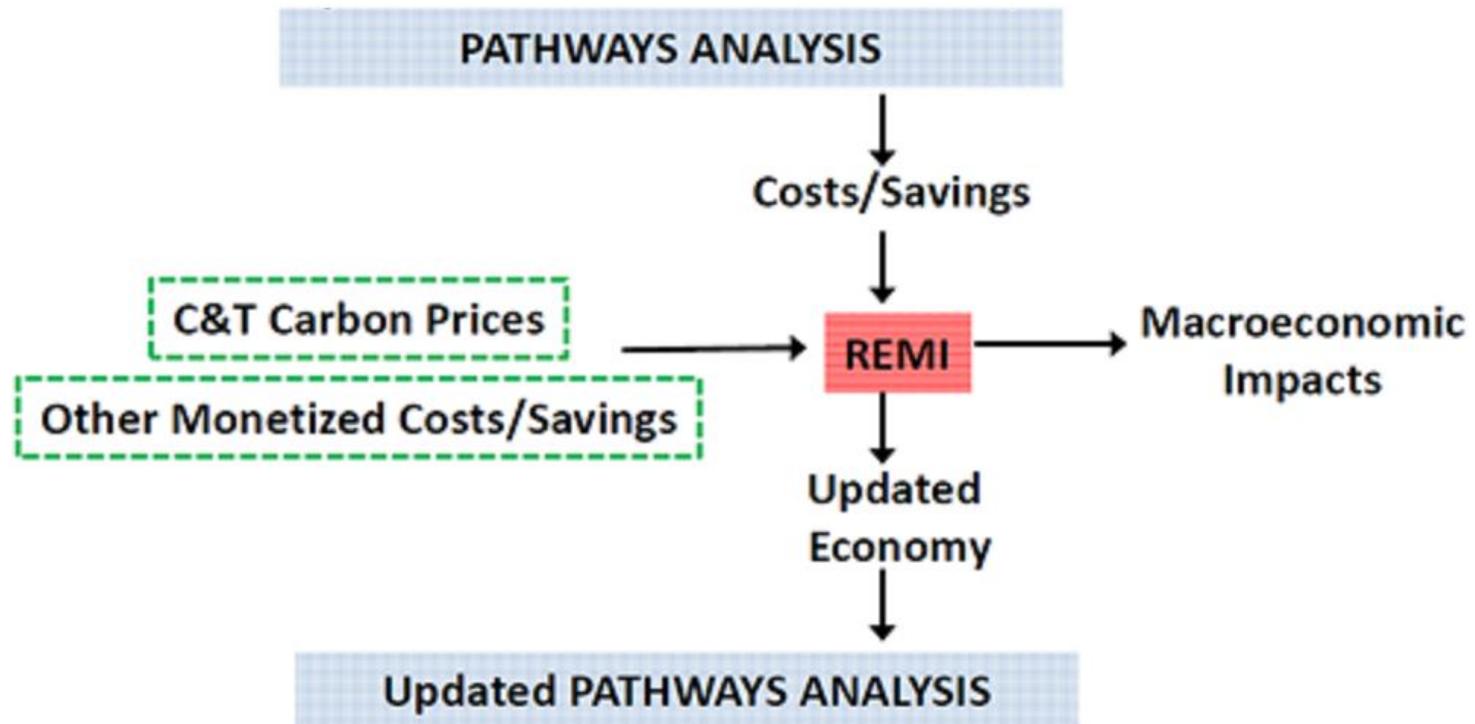
Baseline economic conditions for REMI are supplied by the California Department of Finance

- California Gross Domestic Product
- California Population by Age group

# REMI Outputs

- ▣ Employment Impacts
- ▣ Business Impacts
- ▣ Investment Impacts
- ▣ Impacts to individuals
- ▣ Impacts on Gross State product

# How REMI will be used



# Inputs to REMI from Pathways

<b>Sectors and Sector Cost Categories</b>			
<b>Industrial</b>	<b>Commercial</b>	<b>Household</b>	<b>Trucking</b>
Energy Efficiency	Energy Efficiency	Energy Efficiency	
Natural Gas	Natural Gas	Natural Gas	
Electricity	Electricity	Electricity	
	Vehicle Capital	Vehicle Capital	Vehicle Capital
	Fossil vehicle fuel	Fossil vehicle fuel	Fossil vehicle fuel
	Non-fossil vehicle fuel	Non-fossil vehicle fuel	Non-fossil vehicle fuel

# Example 1: Household Energy Efficiency

- Adjust spending in Household Appliances Category
  - Household appliance manufacturing
  - Retail trade
- Adjust spending in Household Electricity Category
  - Electric power generation, transmission, and distribution
- Adjust spending in Household Natural Gas Category
  - Natural gas distribution
- Run REMI and assess change from baseline model solution

# Example 2 : Cap-and-Trade Carbon Price

- Increase electricity, natural gas and fossil transportation fuel prices in across all model sectors to reflect CO<sub>2</sub> costs
  - Petroleum products manufacturing
  - Electric power generation, transmission, and distribution
  - Natural gas distribution
- Redistribute the value in a manner that is consistent with regulation
  - Electric power generation, transmission, and distribution
  - Natural gas distribution
  - Industry
  - Greenhouse Gas Reduction Fund (Roughly)
- Run REMI and assess change from baseline model solution

# Collaboration

- REMI provides continuing support and advice on how to best portray policies in the model
- Working with the REMI experts at Department of Finance to ensure we are adhering to the State regulatory requirements for economic analysis

# Questions and Comments

- Economic Analysis using REMI