REMI TaxPI Model Training:
How Rising Housing Prices Impact State Economies

Regional Economic Models, Inc.

what does REMI say?℠

Agenda

- Introduction
- **Overview of REMI**
- Economic Impacts of Rising Housing Prices
- Overview of TaxPI and SEI
- TaxPI Model Demonstration
- Q&A

About REMI

REMI's 39-year history of rigorous academic research and software development has led to the development of the state-of-the-art model in macroeconomic research methodology:

Input-Output
Close analysis of inter-industry relationships

General Equilibrium
Estimate of long-run stability of the economy allows for analysis of policy decisions

Econometrics
Advanced statistical analyses underpinning the model

Economic Geography
Effects of geographic concentration of labor and industry

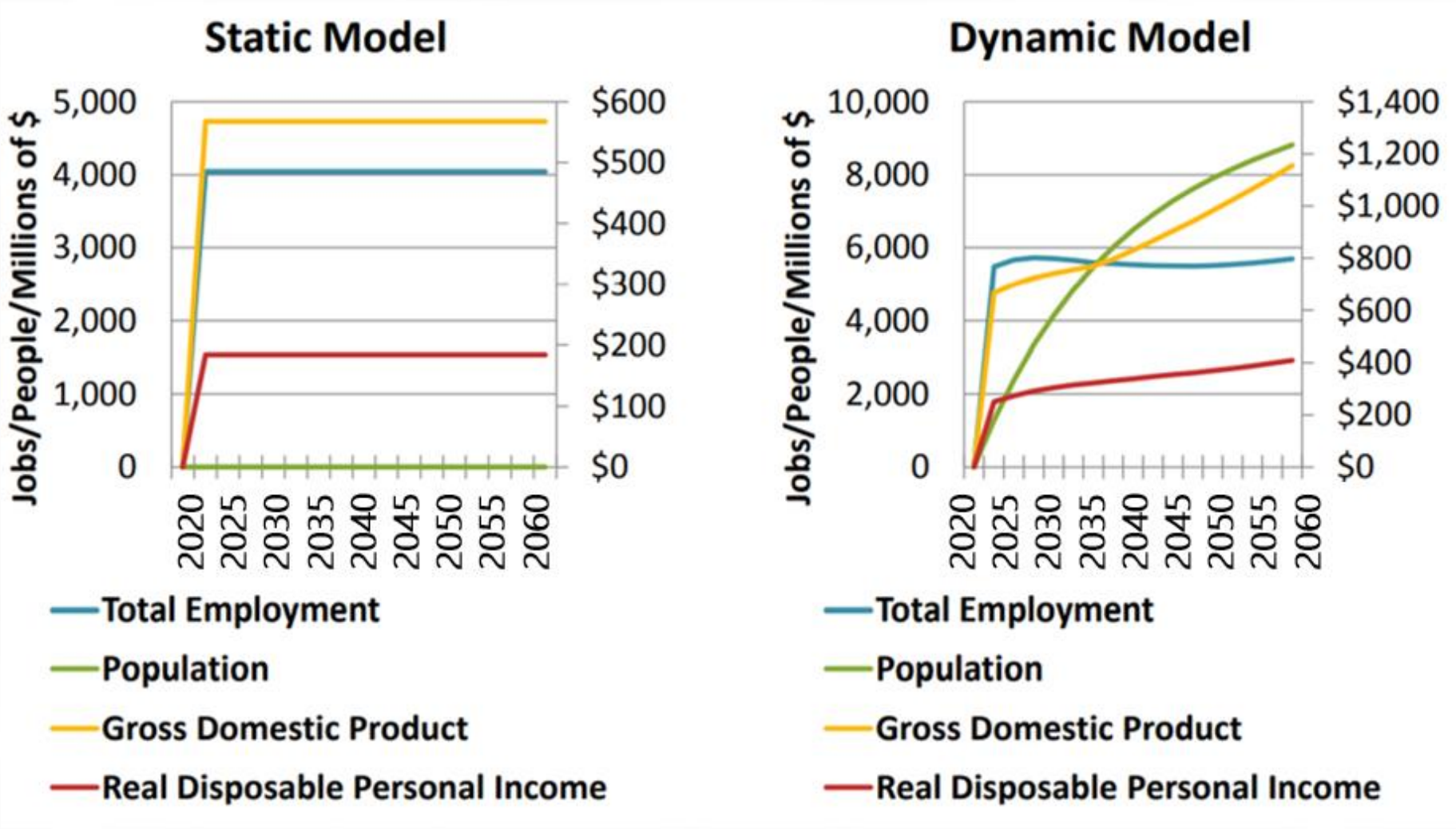
Integrated REMI economic modelling approach

How REMI defines model regions

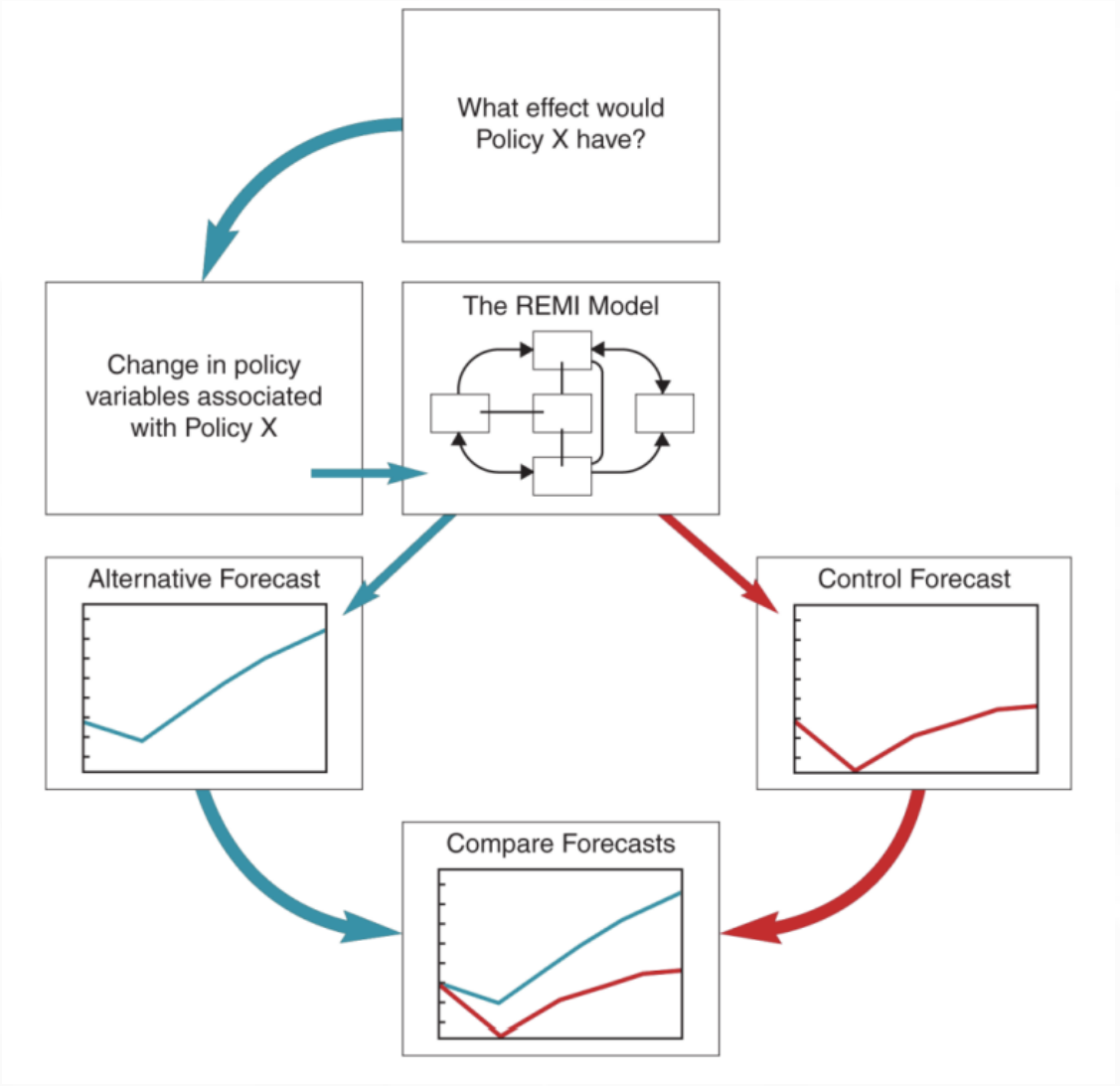
- A county (or equivalent statistical unit) or…
- A collection of counties
  - e.g. an MSA or a state
    - Can cross state borders
- Multiple regions
- Customized by needs

Map of Oregon Counties
Source: GIS Geography

How Dynamic vs. Static



How does a REMI model work?



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Economic impacts of Housing Price Increases

Key Considerations

Employment
Job creation increases housing prices. Housing construction provides widespread employment for various income groups.

Direct Investment
Low interest rates encourage residential investments by investors and traditional homeowners to enter the housing market.

Housing inputs increased substantially, example: lumber up to 114% and iron/ steel up to 73%.

Economic Growth
The housing market plays a significant role in the U.S. economy. Rising housing prices promote a robust economy, which is seen in GDP, output, and employment.

Case Study: Oregon

Housing Underproduction

- Lack of sustained supply response by 111,000 units in the past 20 years
- Supply and demand imbalances due to financing for land acquisition, development, and construction

Affordability

- The pandemic boosted homeownership demand and disrupted supply chains.
- Rapid appreciate in annual rent and home prices
- Homeownership unattainable for lower to middle class residents

Oregon's Economy

- Longest economic expansions in modern history
- Oregon's amenities are attractive to new residents and high-paying jobs
- One of the fastest growing states in the U.S.

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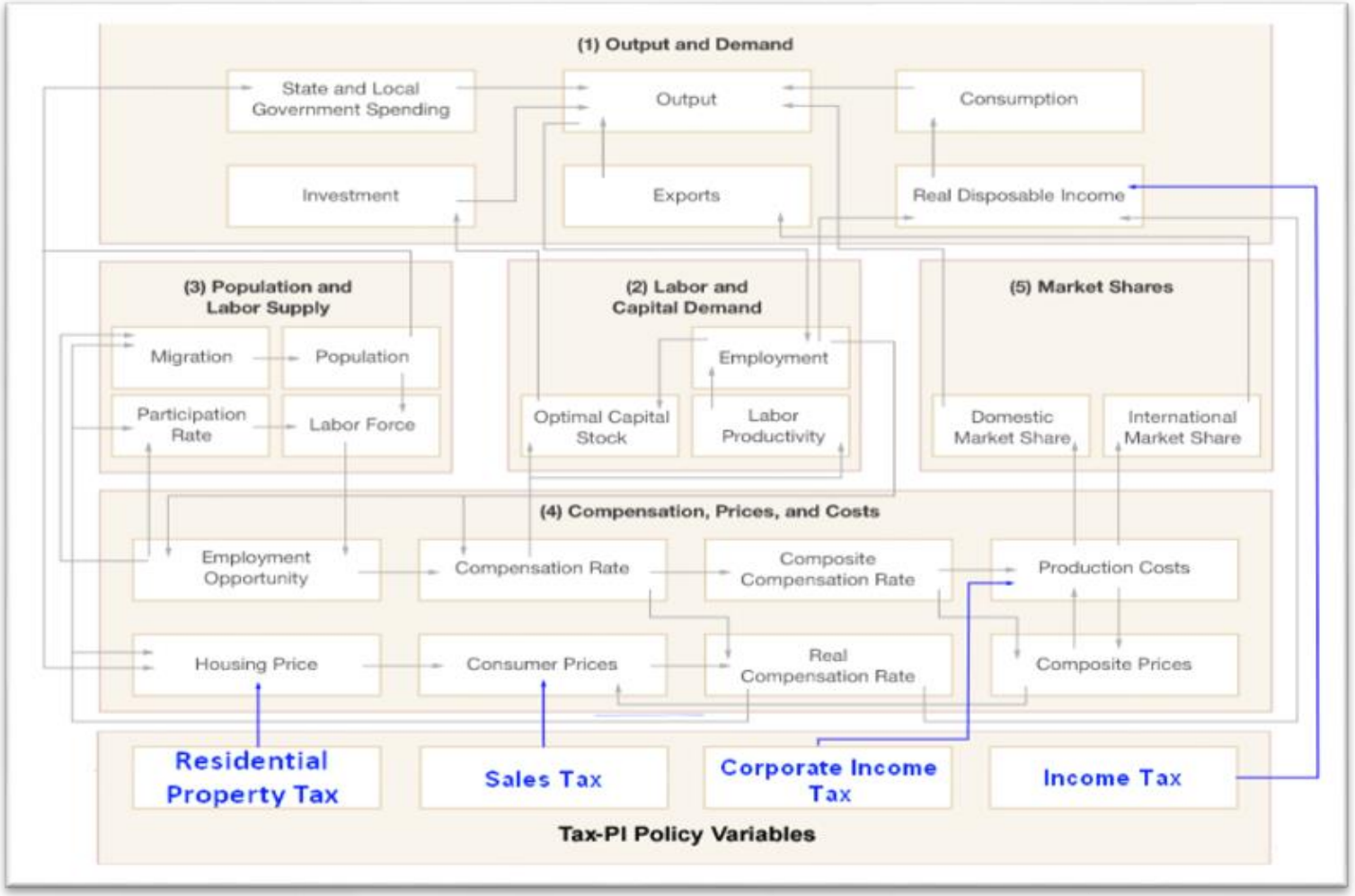
What is TaxPI?



Tax-PI

REMI Tax-PI is the only commercially available dynamic macroeconomic and fiscal impact analysis tool.

Tax-PI allows users to understand the deep linkages and relationship between a budget and its economic foundation

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Measurements of REMI-SEI

Compensation Distribution

Employment Changes by Earnings Quintile

Consumption Price by Earnings Quintile and Range

Inequality Coefficient

Employment by Race & Gender

Employment by Educational Attainment

Labor Force Participation by Race & Gender

Unemployment

Per Capita Income

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TaxPI Model Demonstration

- Impact Study
  - State: Oregon
    - Policy Variable: Consumer Spending
    - Detail: % Increase from 2020 – 2022
    - Data Source: Zillow Home Values
- Analytical Tools
  - TaxPI Model
  - Socioeconomic Indicators (SEI) Module

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Thank you for attending!

For more information, please contact us
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