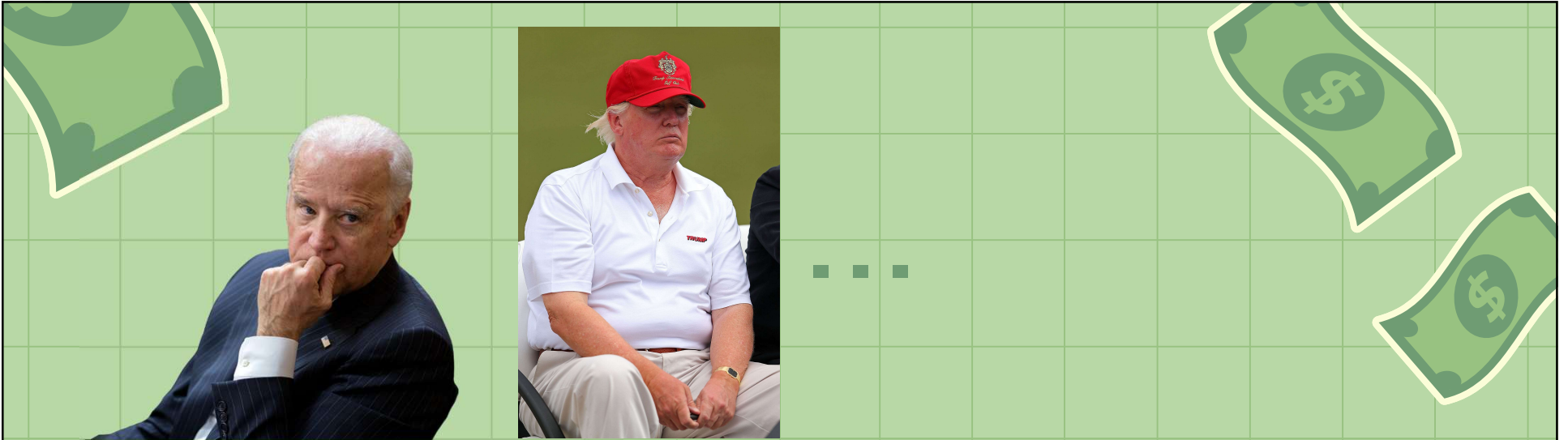


Are You tired of rising inflation?

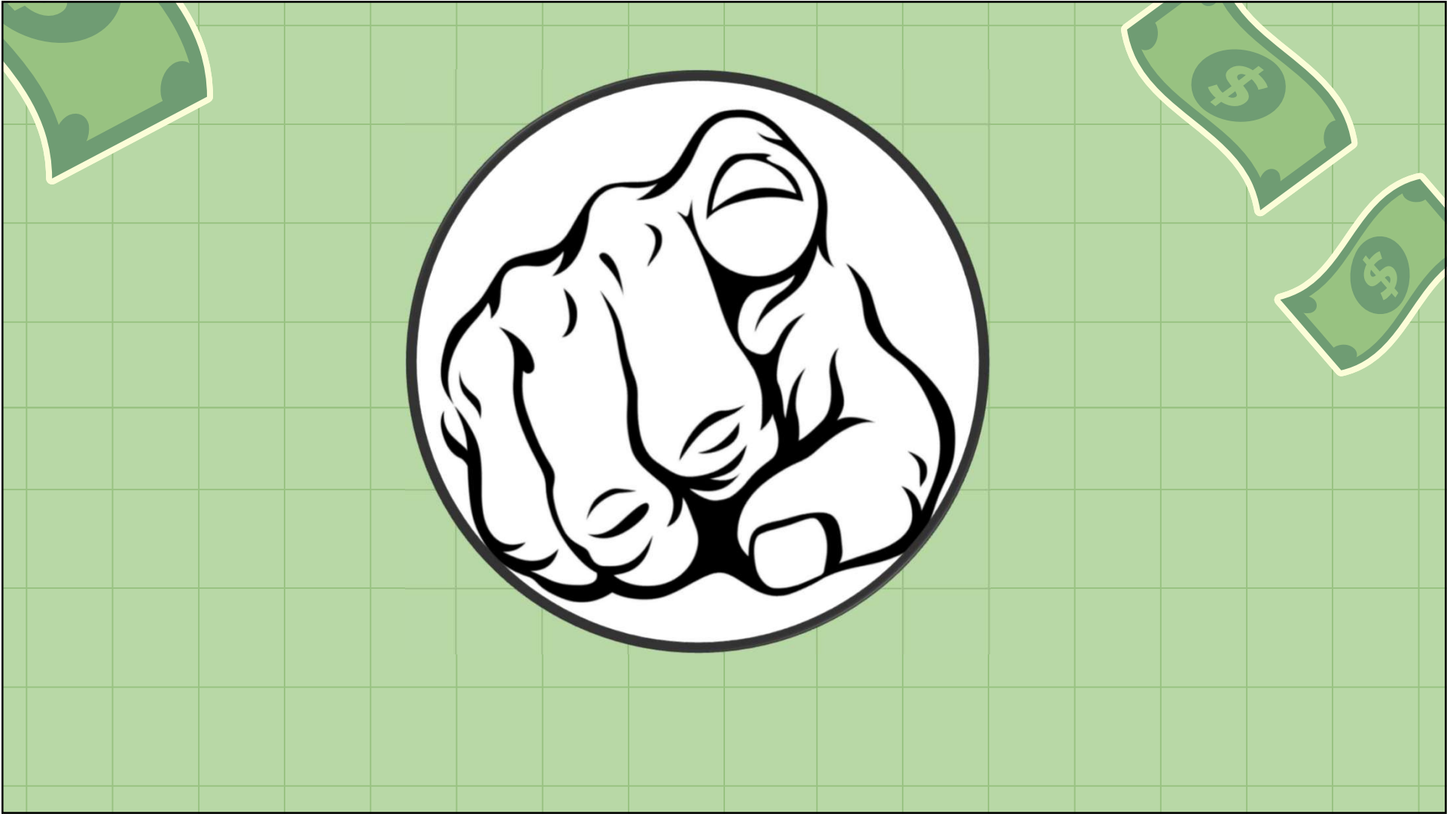




**Do You think our politicians
are useless?**

The background of the image features a light green grid pattern. Scattered across this grid are numerous green dollar bills, each with a white outline and a large white dollar sign in the center. The bills are oriented in various directions, some appearing to be falling or floating.

Yes =(





Parameters

Simulation

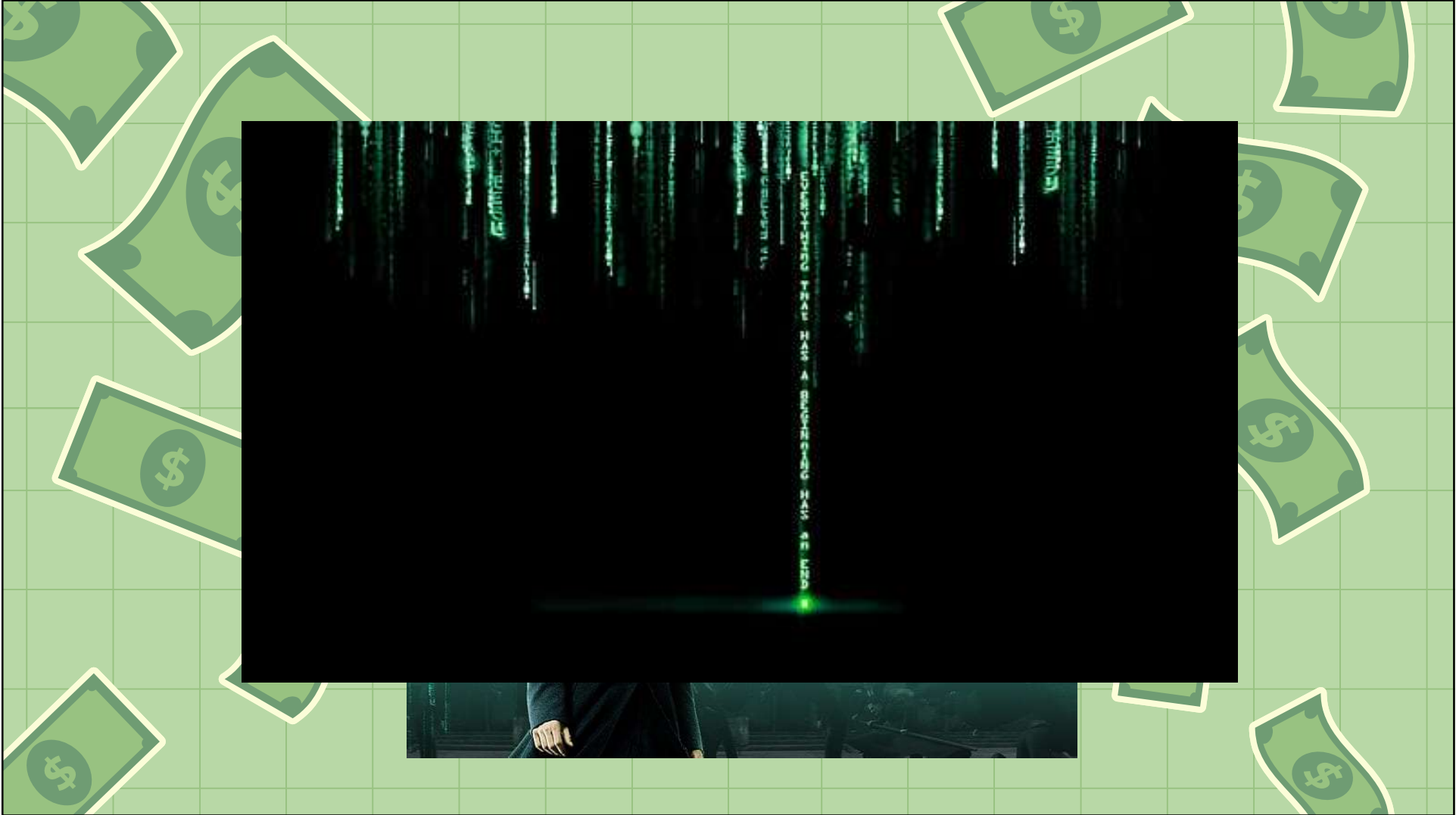


EconoQuake

Grace Im and Yuan Yin

The background is a light green grid. Three stylized green dollar bills with white outlines are floating in the top corners. One bill is partially cut off on the left, and two are on the right, one above the other.

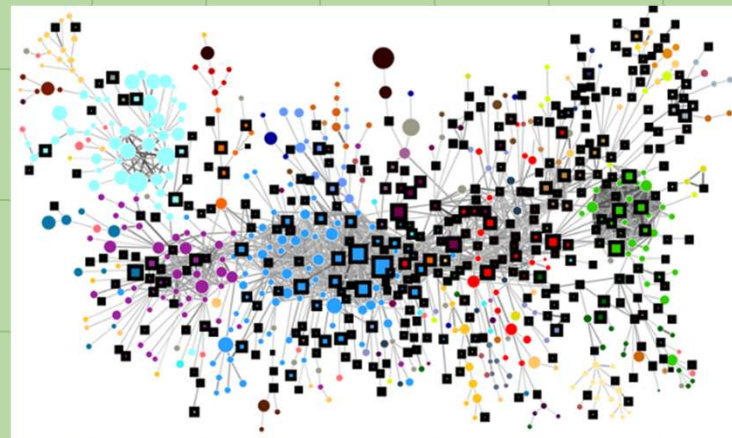
So what is EconoQuake?



Current Circumstances

**Difficulty experimenting
with economics**

**Real-world economies are
complex and unpredictable**



Video Games

Video games are effective

89% agree helpful for learning

Teach the public economic concepts





Price/Quality Control

Price per Cup: - 50

Lemons per Pitcher: - 4

Sugar per Pitcher: - 4 + Cups

Ice per Cup: - 4 + Cubes

Back to Store!

Bankrupt!

OK

Help!

Day: 1 of 7
Money: \$10.50

Temperature: 55°F / 13°C
Weather: Clear and Sunny

End of Season Report

Total Income: \$94.85

Total Expenses: \$50.60

Liquidated Inventory Value: \$6.88

Net Profit/Loss: \$51.13

New High Score!

Previous Best: \$12.51

Congratulations!

Play Again?

Temperature: 82°F / 28°C
Weather: Hazy

Not beginner friendly

$$WACC_t = \left(\frac{E_t}{IC_t} \underbrace{(r_{f_t} + (r_{m_t} - r_{f_t}) \beta)}_{\text{Cost of equity}} \right) + \left(\frac{STL_t + LTL_t}{IC_t} \underbrace{\left(\frac{STL_t}{TL_t} STR_t + \frac{LTL_t}{TL_t} LTR_t \right)}_{\text{Cost of debt}} (1 - tr_t) \right)$$

$$IC_t = STL_t + LTL_t + E_t \quad \forall t.$$

Physical parameters

- o_t Amount of raw material required for producing 1 ton of product at the production centre during period t
- d_{rt} Demand placed to retailer r during period t
- $caprm_t$ Storage capacity for raw material at production centre during period t
- cap_t Storage capacity for products at the production centre during period t
- $capd_{dt}$ Storage capacity for products at distribution centre d during period t

Complex equations and vocab

The background of the slide features a light green grid pattern. Scattered across this grid are numerous green dollar bills, each with a white dollar sign in the center. The bills are oriented in various directions, some appearing to be falling or floating. The word "Improvements" is centered in the middle of the slide in a bold, dark green font.

Improvements

Equations

Multi Region Input Output (MRIO)
model



Leontief input output function

$$X = (I - A)^{-1} Y$$

Methods



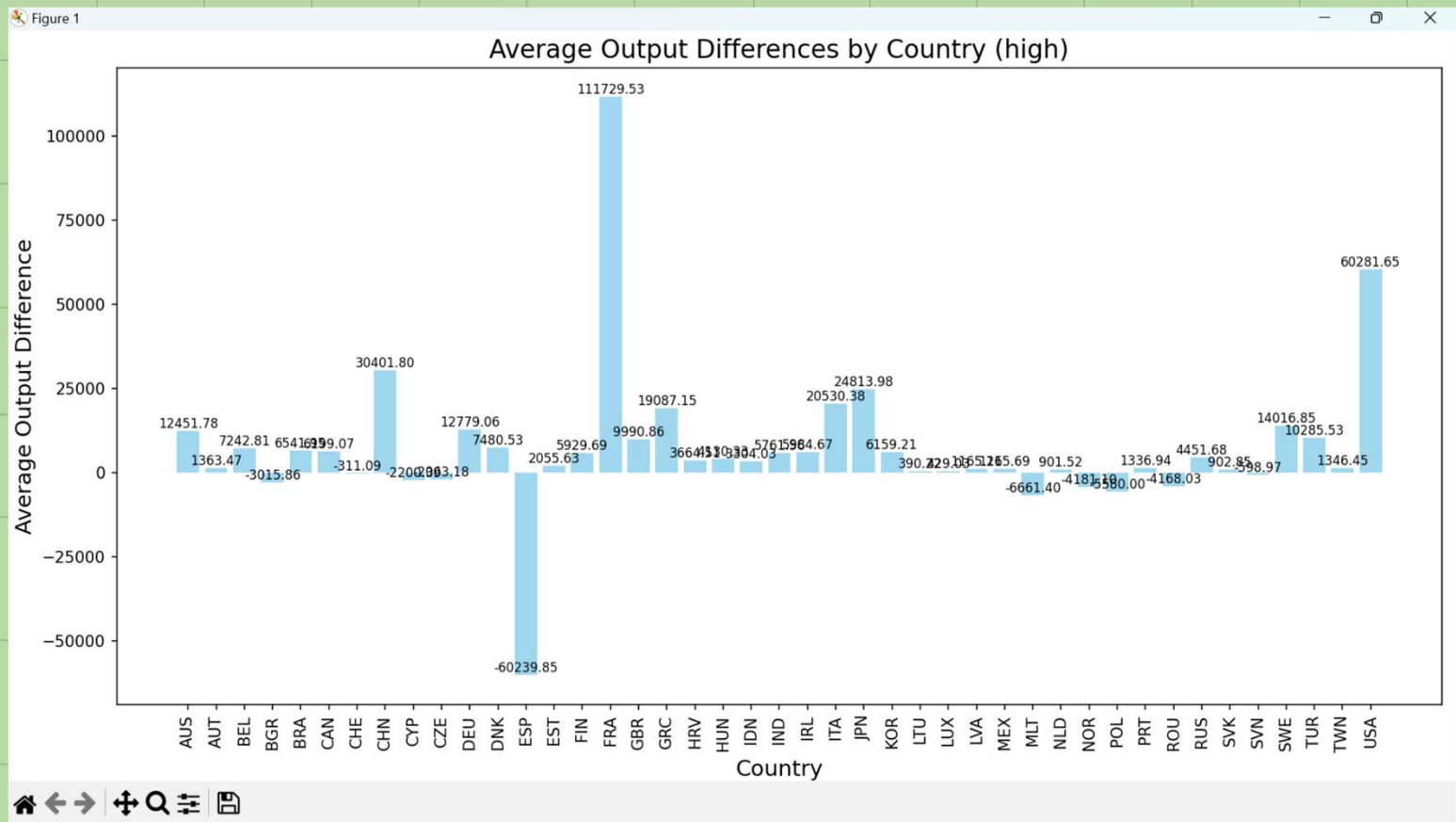
**Pymrio, Pandas
Library**



Flask App



HTML, JS, CSS



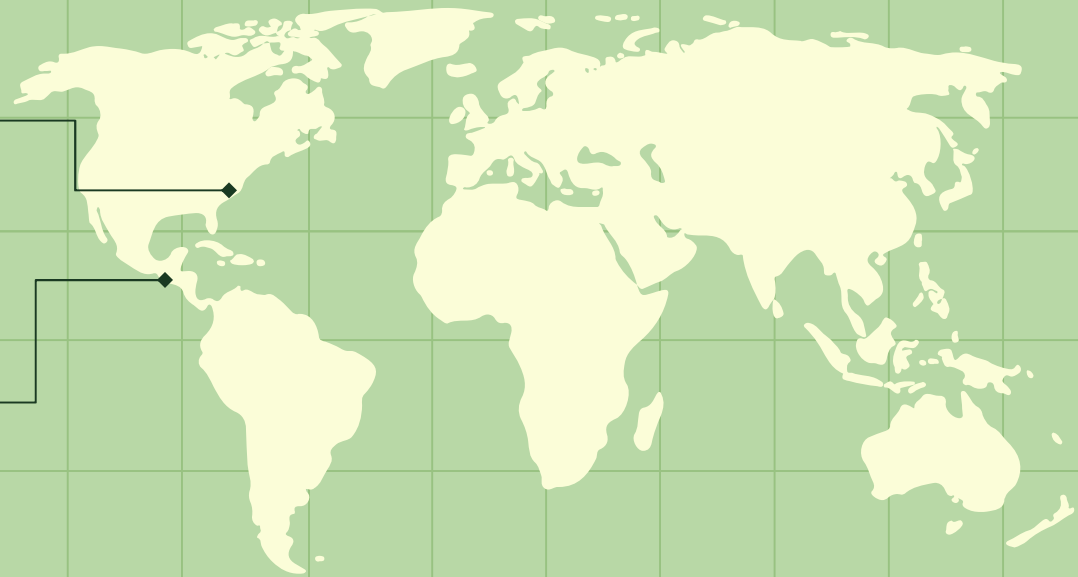
Interface

Country 1 ◆

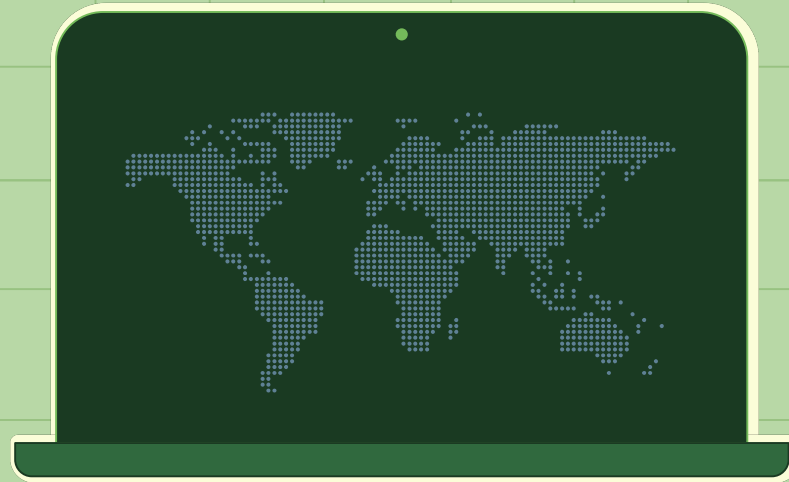
GDP
Product descriptions

Country 2 ◆

Affected outputs and
GDP



Live demo



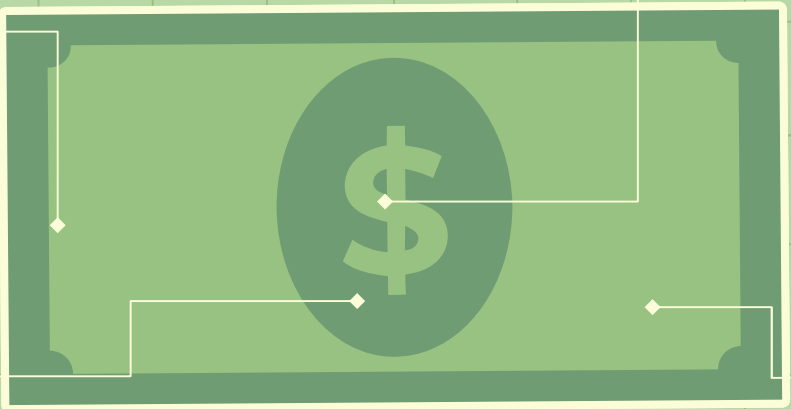
Significance

**Economic
Literacy**

Education

Concepts

**Interactive
Simulations**





Future Plans

Design Alternatives

Gamification

2025

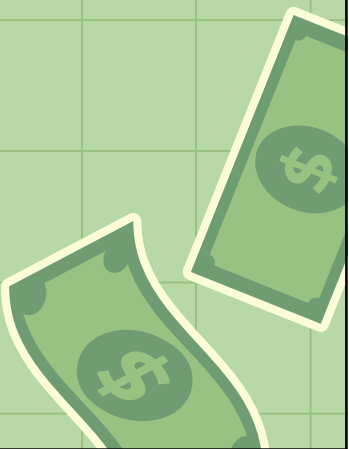
2026

2027

???

Market Caprice

Product Diversity






EconoQuake




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Thanks!

Do you have any questions?



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