

Overview of the GTAP Framework

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Basic features

- Standard GTAP assumptions:
 - perfect competition, constant returns to scale
 - static model, no intertemporal choice, no dynamics
 - international trade in differentiated products (Armington assumption)
- Non-standard features
 - Constant Difference of Elasticities (CDE)
 - Transport sector
 - Global bank

Regional household

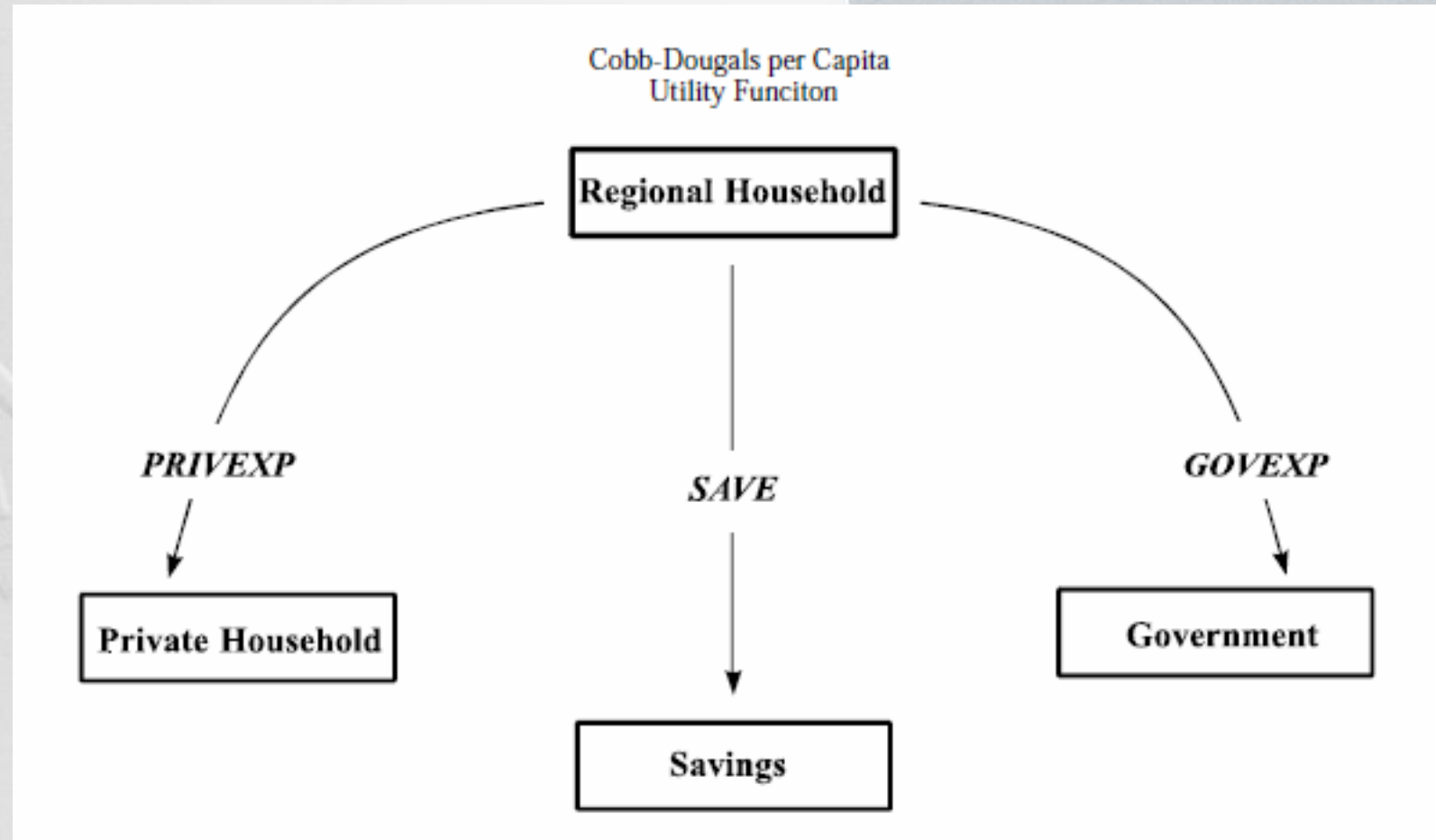
- ...is an entity that
 - owns the factors of production and can tax other entities (firms, activities)
 - decides on the consumption expenditure

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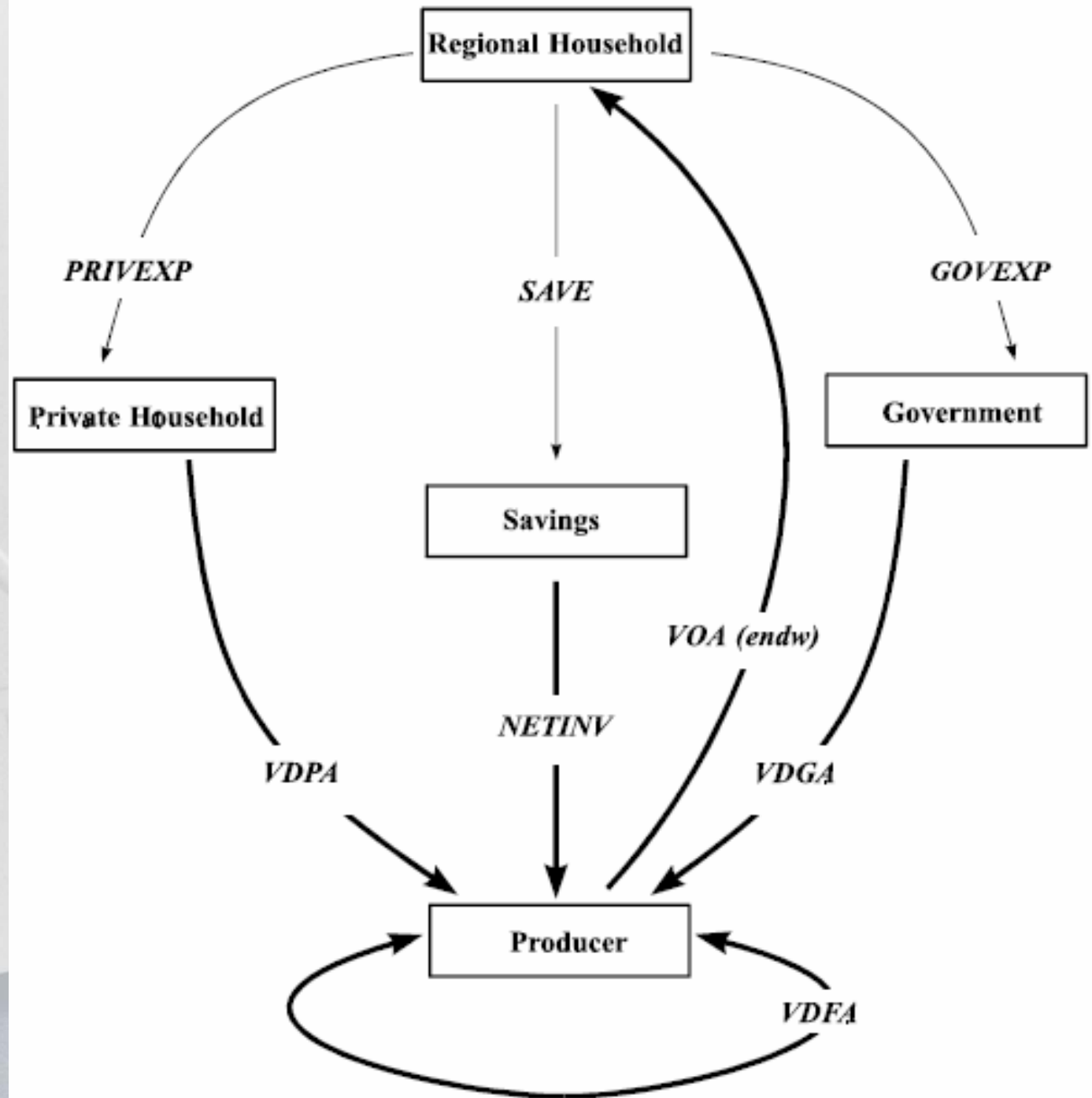
Regional household: preferences

The regional household

- Allocates expenditures on
 - private consumption (PRIVEXP)
 - public consumption (GOVEXP)
 - savings (SAVE)



Circular flow in the closed economy



Closed economy with taxes

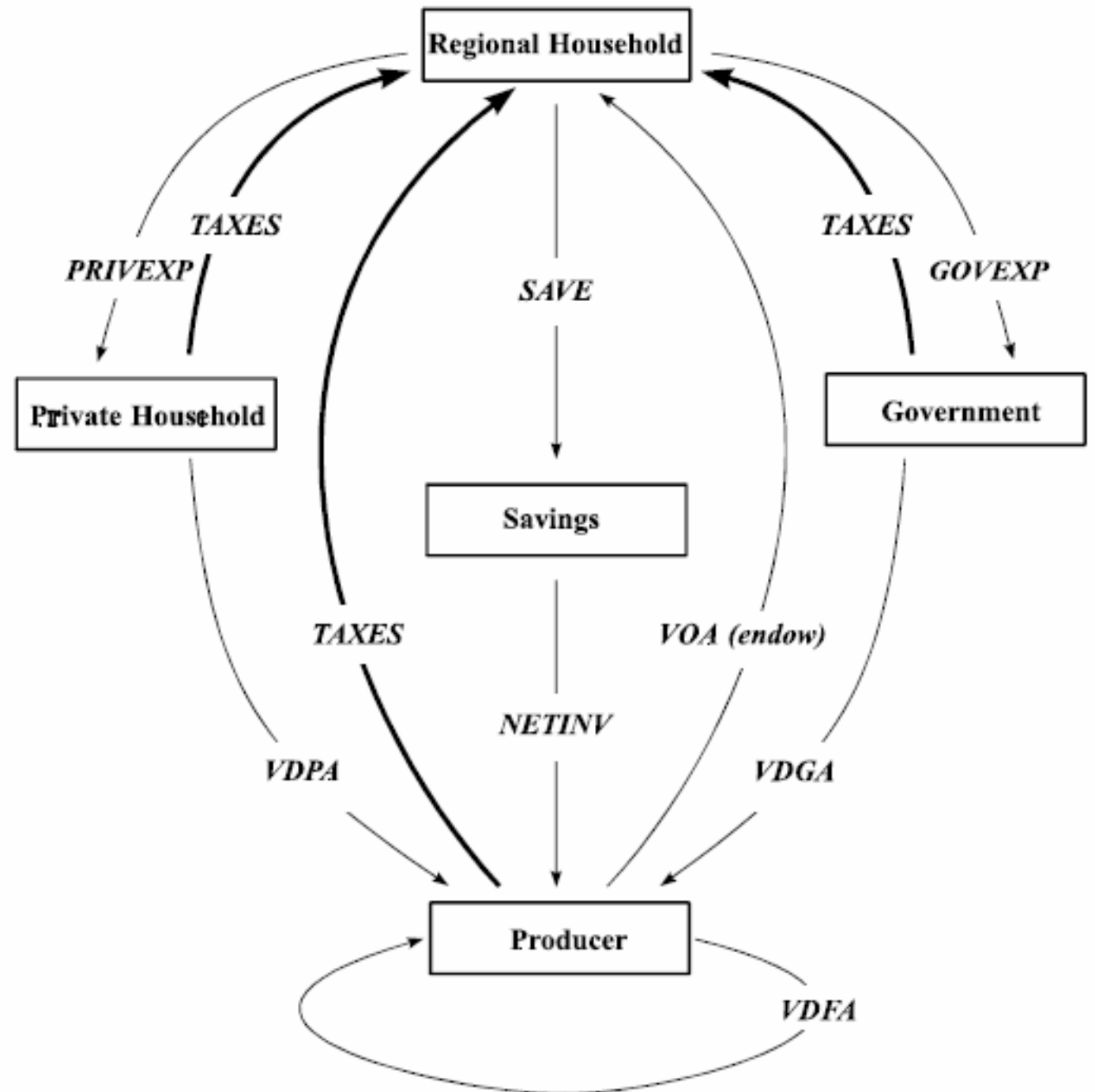
- Regional household can tax:
 - Private consumption
 - Public consumption
 - Producers
- Regional household owns factors so taxes only distort prices
- Tax revenues have nothing to do with govt consumption.

Market prices/Agent prices

Model is built along these lines

- Agents make transactions through markets
- Each transaction is actually two transactions agent-market-agent
- In transactions seller-market
 - agent's price is the seller price
 - market price is the seller price plus taxes
- In transactions market-buyer
 - agent's price is the buyer price
 - market price is the buyer price less taxes
- In an open economy there are also world prices

Closed economy with taxes

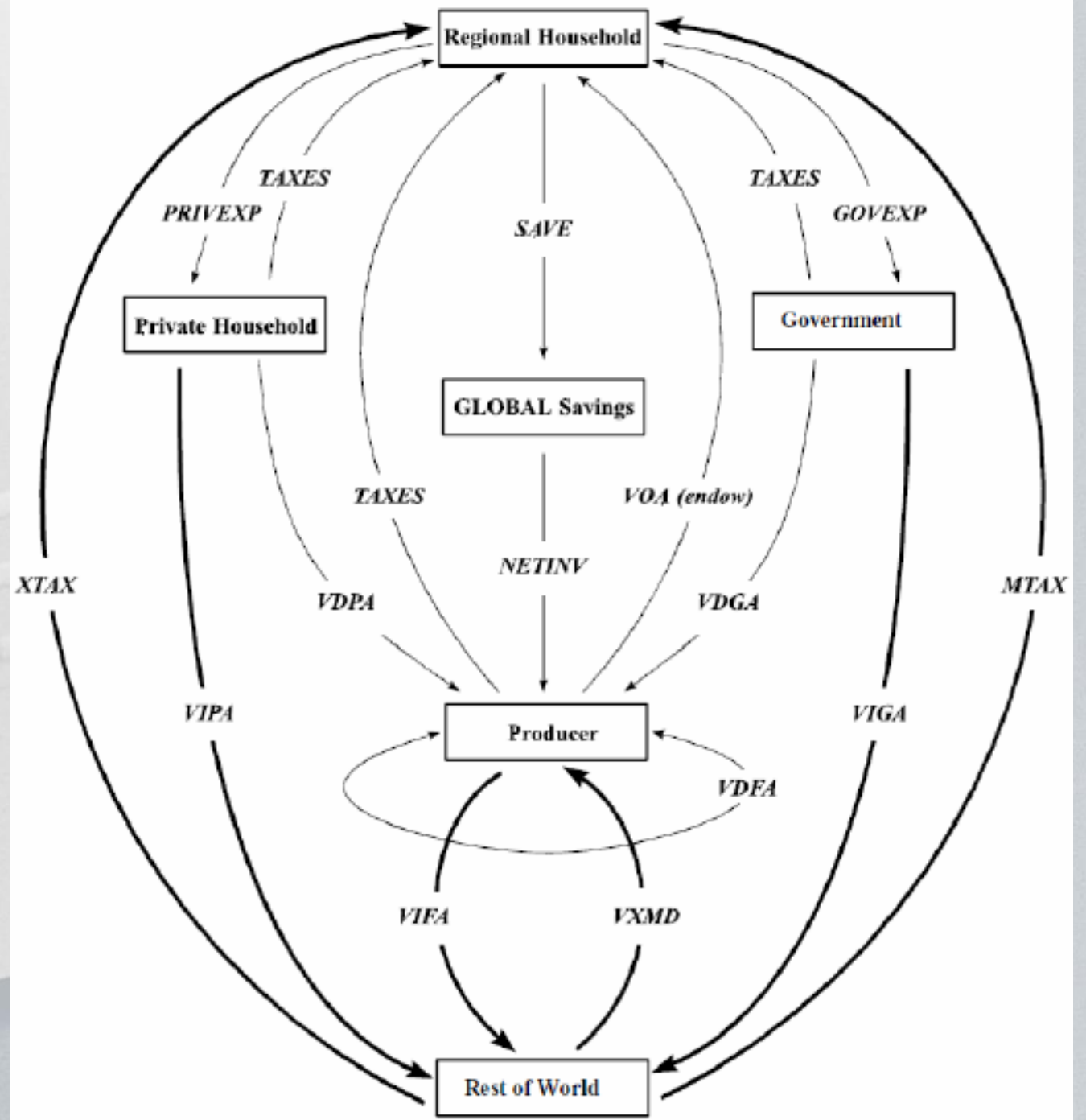


Open economy

In an open economy

- Each agent imports and exports
- Enterprises export final and intermediate goods and import intermediate goods
- Regional household taxes imports and exports
- Savings go to the global banks
- Global bank finances investment
- Transport sector earns the difference between FOB and CIF price.

Open economy



Production structure

