MyGTAP

A Global Model with Single Country Flexibilities
Overview

• The Modeling Dilemma: Global vs. Single Country
• MyGTAP Capabilities
• Two applications
• Review of Benefits
• Future Directions
The Modeling Dilemma

• Global Models: Represent increasing International Connectedness

• Single Country Models: Represent Details of “My” Country better:
  • Distributional Impacts (households and government)
  • Linkages between income and household expenditure
  • Government balances (expenditure and taxes)
  • Factor Markets (wages and incomes)
  • Production structure
# Features - Compared

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>GTAP</th>
<th>Single Country</th>
<th>MyGTAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Representation (linked expenditure-income)</td>
<td>○</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Multiple Households</td>
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<tr>
<td>Foreign Income, Remittances, Aid</td>
<td>-</td>
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<td>●</td>
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<tr>
<td>Flexible Factor Categories</td>
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<td>Government Balances</td>
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<tr>
<td>Global Linkages</td>
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<td>Resources</td>
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<tr>
<td>Off the Shelf Data and Model</td>
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<td>○</td>
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<td>Training and Documentation</td>
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<td>●</td>
</tr>
<tr>
<td>Accessibility (ease of setup and use)</td>
<td>●</td>
<td>○</td>
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</tbody>
</table>
MyGTAP: All regions

- Factor Income
- Taxes
- Private Household
- Government
- Private Consumption
- Private Savings
- Government Savings
- Government Consumption
New Data for all regions

- Foreign Remittances: Labor and Capital
- Foreign Aid
- Transfers (some)
- Rest in GTAP database
- Government Savings/Balance = Residual
### Social Accounting Matrix (SAM): all regions

<table>
<thead>
<tr>
<th></th>
<th>Commodities</th>
<th>Activities</th>
<th>Factors</th>
<th>Households</th>
<th>Government</th>
<th>Capital</th>
<th>Margins</th>
<th>Rest of World</th>
<th>Totals</th>
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</thead>
<tbody>
<tr>
<td>Commodities</td>
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<td>Combined</td>
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<td>WTC: Private</td>
<td>Consumption</td>
<td>Consumption</td>
<td>Investment</td>
<td>Exports of Margins (fob)</td>
<td>Exports of Commodities (fob)</td>
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<tr>
<td>Activities</td>
<td>Domestic Supply Matrix</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Factors</td>
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<td>Expenditure on Primary Inputs</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Households</td>
<td>0</td>
<td>Distribution of Factor Incomes</td>
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<td>Transfers</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Remittances in</td>
<td>Total Household Income</td>
</tr>
<tr>
<td>Government</td>
<td>Taxes on Commodities</td>
<td>Taxes on Production</td>
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<td>Direct/Income Taxes</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Foreign aid in</td>
<td>Total Government Income</td>
</tr>
<tr>
<td>Capital</td>
<td>0</td>
<td>Depreciation Allowances</td>
<td>Household Savings</td>
<td>Government Savings</td>
<td>0</td>
<td>Balance on Margins Trade</td>
<td>Foreign Savings</td>
<td>Total Savings</td>
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<td>Margins</td>
<td>Imports of Trade and Transport Margins</td>
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<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>Total Income from Margin Imports</td>
</tr>
<tr>
<td>Rest of World</td>
<td>Imports of Commodities (fob)</td>
<td>0</td>
<td>0</td>
<td>Remittances out</td>
<td>Foreign aid out</td>
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<td>0</td>
<td>0</td>
<td>Total Income from Imports</td>
</tr>
</tbody>
</table>
MyGTAP: My country

My country's economic activities include:

- **Remittances**
  - Factor Income
  - Government
    - HHLT Transfers
    - Gov. Transfers

- **AID**

- **Taxes**

Households include:

- Household-1
  - "Rural Poor"
  - HHLT Save-1

- Household-5
  - "Urban NP"
  - HHLT Save-5

Government activities include:

- Government Savings
- Government Consumption

Impact ECON
MyGTAP: My country
Flexible labor categories
New Data for My Country

• For each household:
  • Consumption of each commodity (WTC)
  • Savings rates (SRT)
  • Income from each factor (ownership) (OWN)
  • Income from Foreign Remittances (RMIH, FYIH, RMOH, FYOH)
  • Transfers between households (TRNH) and to/from government (TRNG)

• For each factor
  • Factor use by each sector in production (WTF)
# Social Accounting Matrix: My country

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<thead>
<tr>
<th></th>
<th>Commodities</th>
<th>Activities</th>
<th>Factors</th>
<th>Households</th>
<th>Government</th>
<th>Capital</th>
<th>Margins</th>
<th>Rest of World</th>
<th>Totals</th>
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<tbody>
<tr>
<td><strong>Commodities</strong></td>
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<td>Combined Intermediate Use Matrix</td>
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<td>WTC: Private Consumption</td>
<td>Government Consumption</td>
<td>Investment Consumption</td>
<td>Exports of Margins (fob)</td>
<td>Exports of Commodities (fob)</td>
<td>Total Demand for Commodities</td>
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<tr>
<td><strong>Activities</strong></td>
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<td>Domestic Supply Matrix</td>
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<td>0</td>
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<td>Total Domestic Supply by Activity</td>
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<tr>
<td><strong>Factors</strong></td>
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<td>WTC: Expenditure on Primary Inputs</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Total Factor Income</td>
</tr>
<tr>
<td><strong>Households</strong></td>
<td>0</td>
<td>OWN: Distribution of Factor Incomes</td>
<td>0</td>
<td>TRNH: Transfers</td>
<td>TRNG: Transfers</td>
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<td>0</td>
<td>RMIH, FYIH: Remittances</td>
<td>Total Household Income</td>
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<tr>
<td><strong>Government</strong></td>
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<td>Taxes on Commodities</td>
<td>0</td>
<td>Direct/Income Taxes</td>
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<td>Direct Taxes</td>
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<tr>
<td><strong>Capital</strong></td>
<td>0</td>
<td>Depreciation Allowances</td>
<td>0</td>
<td>SAV: Household Savings</td>
<td>Government Savings</td>
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<td>0</td>
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<td>Foreign aid</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Total Income from Imports</td>
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MyGTAP Data Sources

GTAP Database
- Remittances
- Aid
- Factor Income by HHLD
- Factor Use by Sector
- Consump. by HHLD - Comm.
- Remittances by HHLD
- Transfers
- Savings by HHLD
Other Model features

• User choose LES or CDE for determining private consumption
• Alternative government closures available to fix government savings/balance, income, tax revenue or spending
• Altertax, GTAPView, GTAPVol, SAM and Welfare decomposition available
Review of benefits

- Global linkages with single country detail
- Multiple Private households (e.g., rural and urban)
- Link government income and expenditure to tax revenue
- Transfers between households and Government
- Foreign aid and remittances
- Flexible Factors categories (e.g., rural and urban labor)
Future Directions

• Poverty Measures
• Enterprise account to allow government to collect income from factors of production
• Replace the whole IO table for MY Country, except trade data
• For multiple “MY” countries please contact us
Thank you!
For more information email:
contact@impactecon.com