Published by the Forum of Federations · www.forumfed.org · Publié par le Forum des fédérations

# "Regional Effects of Brazilian Trade Policy"

Prof. Dr. Eduardo A. Haddad

*FEA-FIPE, University of São Paulo, Brazil*

*REAL, University of Illinois, USA*

# Outline

- Introduction
  - Strategies of economic integration
- Methodology
  - National CGE model: EFES-ARG
  - Model of interstate flows
- Main results
  - Macro and sectoral impacts
  - Regional impacts
- Final remarks

# *Background*

- The B-MARIA Project (Haddad,1999)
  - Baer, Haddad e Hewings (1998); Haddad e Hewings (1999, 2001ab); Haddad e Azzoni (2001)
- UNDP/IPEA Project (Haddad *et al*., 2001)
- IDB Project
- FIPE Project
  - Regional accounts
- CONFAZ

# Strategies of Integration

- Mercosur: next step?
  - FTAA, European Union, WTO
  - Argentina
- Likely structural impacts
  - Trade flows
  - Sectors
  - Regions

# Strategies of Integration

- The static impact-effect question:
  - Short-term considerations
  - Trade creation *vs*. Trade diversion
    - Structure is given
    - Changes in policy variables
- The dynamic time-path question:
  - Long-term considerations
    - Technology, learning, externalities, political economy, political agreements

# Short run

- The results are related to the “first-round” impacts of the trade liberalization process, and can be perceived in a time span long enough:
  - ✓ for local prices of imports to fully adjust to tariff changes;
  - ✓ for major import users to decide whether or not to switch to domestic suppliers;
  - ✓ for domestic suppliers to hire labor and to expand output with their existing plant;
  - ✓ for new investment plans to be made but not completed;
  - ✓ for price increases to be passed onto wages and wage increases passed back to prices.

# Direction of Trade: Exports by Destination (1999-2001)

| | Mercosur | Nafta | Rest of FTAA | EU | ROW |
|---|---|---|---|---|---|
| North | 9% | 19% | 6% | 31% | 35% |
| Northeast | 12% | 33% | 4% | 27% | 24% |
| Southeast | 14% | 30% | 9% | 24% | 23% |
| South | 14% | 25% | 6% | 28% | 27% |
| Midwest | 4% | 5% | 4% | 61% | 26% |

# Regional Share in National Exports by Destination (1999-2001)

| | Mercosur | Nafta | Rest of FTAA | EU | ROW |
|---|---|---|---|---|---|
| North | 1% | 4% | 5% | 7% | 8% |
| Northeast | 13% | 9% | 4% | 7% | 7% |
| Southeast | 51% | 63% | 69% | 52% | 54% |
| South | 33% | 23% | 20% | 26% | 27% |
| Midwest | 2% | 1% | 2% | 8% | 4% |

# The EFES-ARG Model

| | |
|---|---|
| Type of model | National CGE |
| Sectors | 42 |
| Products | 80 |
| Primary factors | Labor and capital |
| Source of products | 7 |
| Users | 9 |
| Benchmark year | 1997 |
| Model use | Comparative static |
| Number of equations | 454.008 |
| Number of variables | 465.441 |

# Impacts of Economic Integration

- Haddad *et al*. (2001)
- Three FTA scenarios (member countries eliminate tariffs among themselves but maintain individual tariff schedules on imports for non-member countries )
  - FTAA
  - Mercosur/European Union
  - Generalized bilateral agreements
- Shocks were given in both the appropriate tariff and export tax variables

# Summary of Results

- FTAA:
  - lower GDP impact
  - favors manufacturing: traditional (textiles, clothing and shoes) and technology-intensive sectors (transport equipment)
- European Union:
  - higher GDP impact
  - favors agriculture
- Generalized bilateral agreements:
  - higher growth impact
  - more diversified export list
  - “balanced growth”

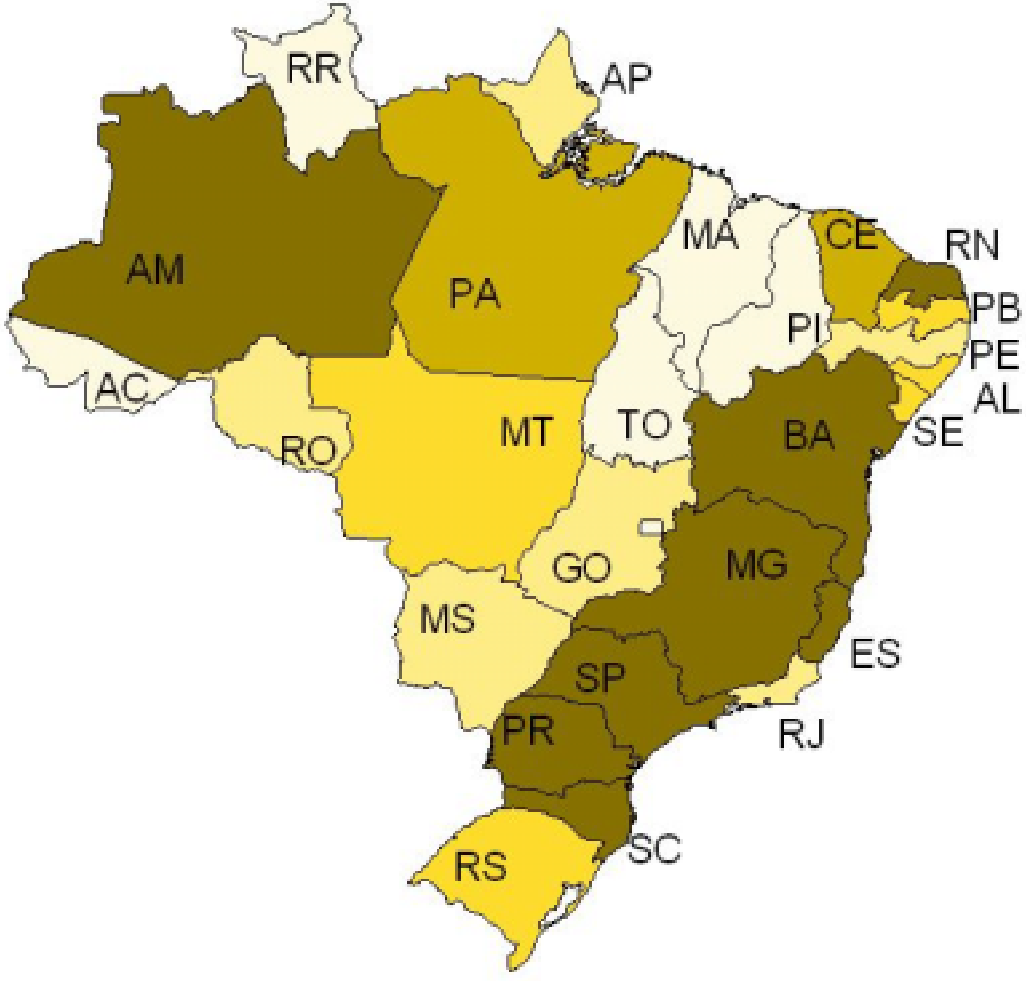
# Regional (State) Impacts

- Brazilian economy is not homogeneous internally => differential impacts across space
- Is integration likely to increase/decrease regional inequality?
- Implications for resource allocation

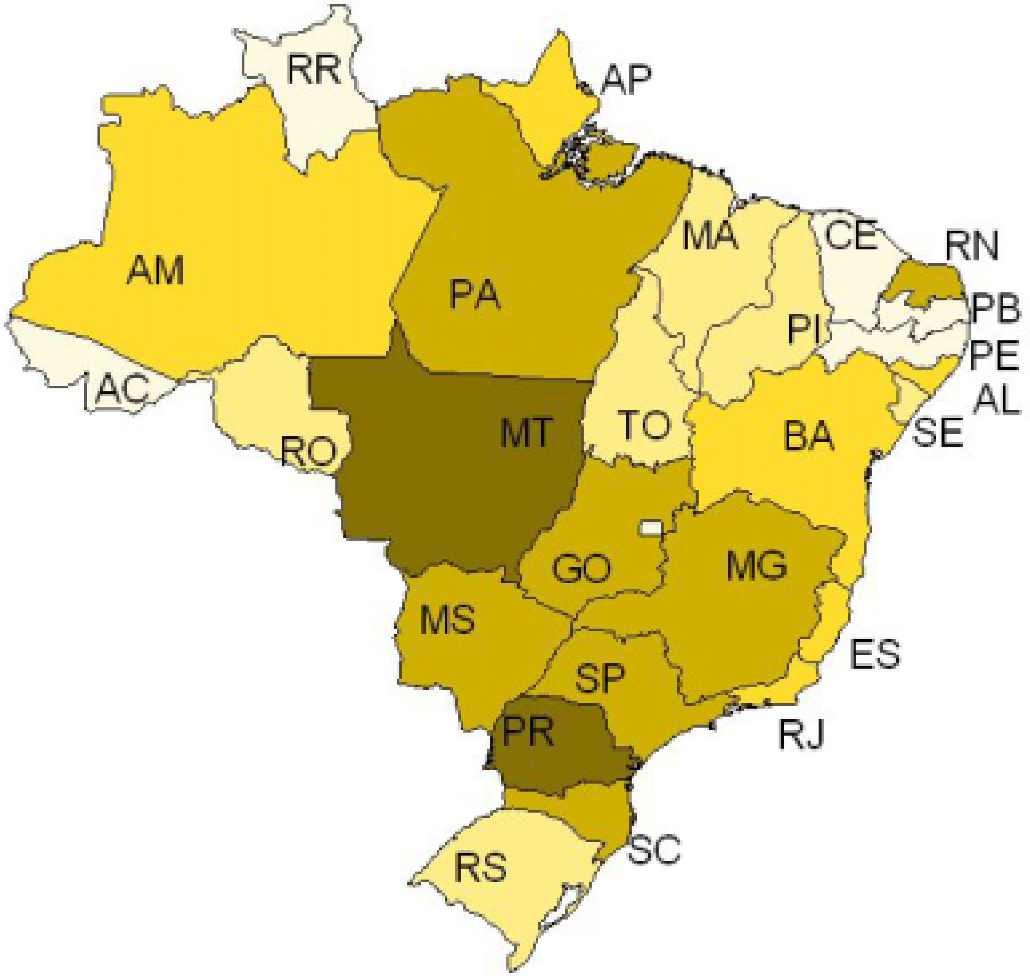
# Summary of Results

- Export effects of the less developed states are relatively higher
- From the spatial point of view, the three strategies generate concentration of the economic activity

# FTAA:
# Impact on Activity Level, Brazilian States (in %)

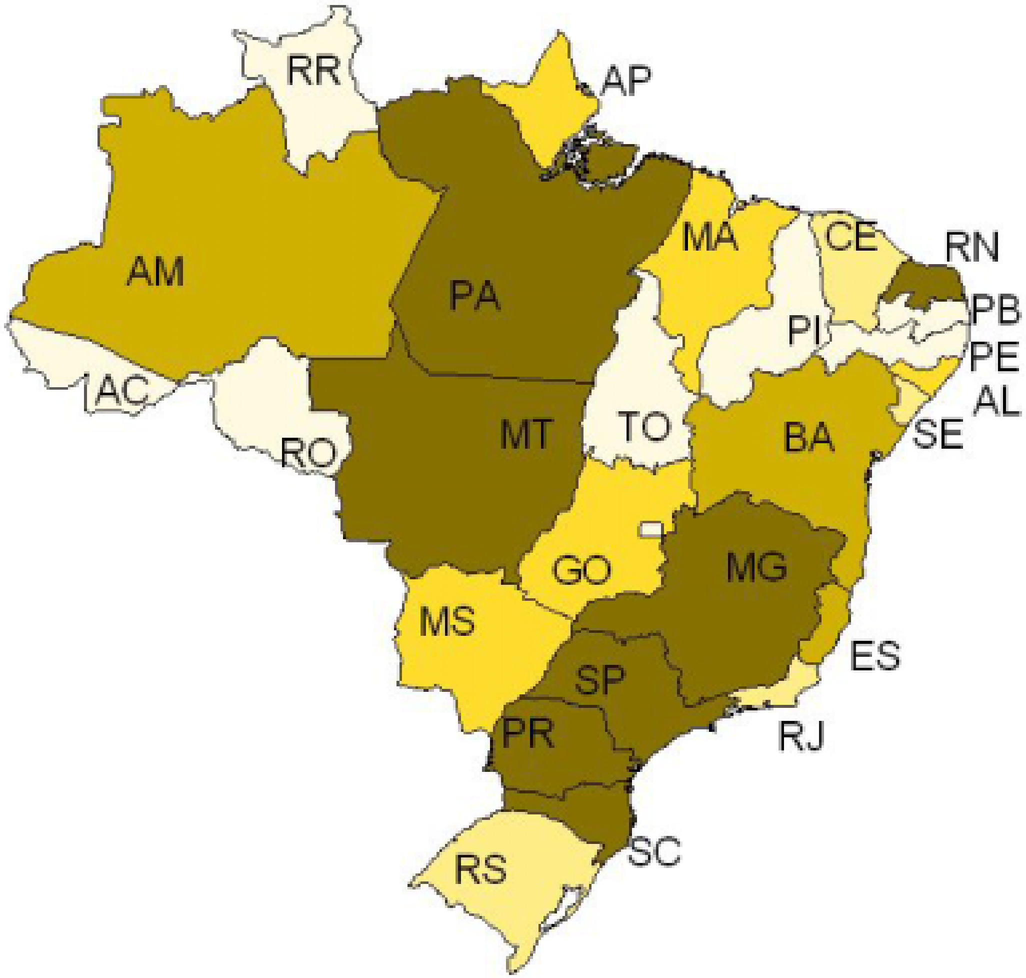


# EU:
# Impact on Activity Level, Brazilian States (in %)



All:

Impact on Activity Level, Brazilian States (in %)



- Factors that contribute to a better overall performance of the economies of the South and Southeast:
  - a) higher value-added content in the exports by the states in the region;
  - b) higher degree of trade openness of the state economies of the South and Southeast regions;
  - c) the pattern of interregional integration at the sub-national level and the operation of feedback effects, as the state interdependence generates leakages from the less developed to the more developed regions.

# Final Remarks

- Would the other states be fated to an archaic structure of trade, based on the export of less elaborated products directed to specific markets?
- Would the likely regional concentration pattern of international trade flows be irreversible, once liberalization points to the strengthening of this phenomenon?

- Complex dynamic general equilibrium process, whose effects expand in the long run (technology, learning, externalities, political economy, and political agreements)
- The role of interregional trade to the state economies should not be relegated to a secondary place

*If Brazilian states were individual independent countries, willing to grant most-favored nation status to their main trade partners, what countries would receive the special treatment?*

# Brazilian States' Main Trade Partners

| *AC* | *AP* | *AM* | *PA* | *RO* | *RR* | *TO* | *AL* | *BA* |
|---|---|---|---|---|---|---|---|---|
| SP | SP | SP | SP | SP | SP | SP | SP | SP |
| MG | RS | EUA | MG | PR | MG | GO | PE | MG |
| RS | MG | RJ | EUA | MT | PR | MG | BA | RJ |
| SC | RJ | RS | RJ | MG | RJ | PA | SE | PE |
| MT | SC | MG | PR | RS | RS | CE | RJ | SE |
| 19- | 22 - | 21 - | 21 - | 15 - | 37 - | 16 - | 20 – | 13 - |
| Argentina | Argentina | Argentina | Argentina | Argentina | Argentina | Argentina | Argentina | Argentina |

| *CE* | *MA* | *PB* | *PE* | *PI* | *RN* | *SE* | *ES* | *MG* |
|---|---|---|---|---|---|---|---|---|
| SP | SP | PE | SP | SP | SP | SP | SP | SP |
| PE | MG | SP | BA | CE | CE | BA | MG | RJ |
| RN | CE | CE | PB | PA | PE | PR | RJ | ES |
| MG | PA | MG | MG | PE | MG | PE | EUA | GO |
| RJ | PE | RN | CE | MG | BA | MG | Argentina | PR |
| 18 - | 15 - | 19 - | 19 - | 21 - | 16 - | 15- | | 12 - |
| Argentina | Argentina | Argentina | Argentina | Argentina | Argentina | Argentina | | Argentina |

| *RJ* | *SP* | *PR* | *SC* | *RS* | *DF* | *GO* | *MT* | *MS* |
|---|---|---|---|---|---|---|---|---|
| SP | MG | SP | SP | SP | SP | SP | SP | SP |
| MG | RJ | SC | PR | SC | MG | MG | PR | PR |
| RS | PR | RS | RS | PR | GO | MT | GO | MG |
| ES | RS | MG | RJ | RJ | RJ | DF | MG | MT |
| PR | AM | RJ | MG | MG | PR | PR | SC | RJ |
| 13 - | 12 - | 9 - | 9 - | 8 - | 18 - | 20 - | 30 – | 13 - |
| Argentina | Argentina | Argentina | Argentina | Argentina | Argentina | Argentina | Argentina | Argentina |

- The future is not only tied with its ability to compete in the international export market, but also with its articulation with other domestic markets
- Repercussion in the sub-national space can be redirected by public policies