Overview of GTAP 7 Data Base and the Data Goal

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Overview of Changes in Regional Databases

- **Reference year: 2004**

- **New Regional Classification**

- **113 regions, 57 commodities**

- **21 New and 34 Updated regions**

- **Major additions and improvements in Latin America, Africa, Europe and South-East Asia.**

- **More details on a separate presentation by Terrie Walmsley**

International Trade

- **2004 Bilateral Merchandise Trade Data contributed by Mark Gehlhar and bilateral services trade data by IMF**

- **Improvements in the OECD bilateral services trade data, contributed by Nico van Leeuwen and Arjan Lejour, CPB, Netherlands**

International Trade (Contd…)

More on services trade data:

– **In GTAP 6 DB, it was constructed by rebalancing IMF bi-lateral trade matrix , using RAS and bilateral trade flows in goods** *(See chapter 15 in GTAP 6 DB documentation by Dimaranan, 2006)*

– **OECD bilateral services data (2007) includes 2004 and data for 7 individual sectors under other commercial services ➔ this has been utilized and further processed by CPB to contribute a GTAP-consistent services trade dataset.**

– **In GTAP 7 DB, this has been done for EU15, 27 other OECD countries and 2 non-OECD countries with their partner countries**

Protection

- **2004 Tariff data contributed by David Laborde, based on CEPII's MacMAPHS6 data**

- **Agricultural Export Subsidies data for 2004: contributed by Aziz Elbehri (FAO), based on WTO country notifications dated from 2001 to 2004.**

- **MFA Export Tax Equivalent estimates for 2003 and 2004: contributed by Joseph Francois and Julia Wörz**

Protection (Contd…)

- **Agricultural Domestic Support:**
  - **New type of data by Hsin Huang (OECD) for non-EU OECD countries: includes data on activity-specific, group-specific and activity-generic payments**
  - **For EU25: Given the invariance of most of these payments to the crops, we equalize the rates of support across all crop sectors, after totaling all the cropland subsidies.**
  - **Non-OECD Economies that have domestic support data: Bulgaria, China, Romania, Russia, South Africa, Brazil and Ukraine: Treatment of this data is similar to version 6.**

Energy

- **Energy volumes and prices data updated to 2004: Robert McDougall**

- **Energy volumes are based on the "extended energy balances" published by the International Energy Agency (IEA) in 2006**

  - **Some changes are specific to few countries and industries, other changes are due to new IEA classifications** *(See McDougall and Aguiar, 2007 GTAP Research Memorandum 10)*

Other Changes

- **Agriculture Value-Added Shares have been updated using recent literature: Shinsuke Uchida**

- **Macro Data has been updated to 2004: Dominique van der Mensbrugghe**

- **CDE Parameters were calibrated from expenditure elasticities based on AIDADS model estimation using GTAP data**

Summary: Changes in GTAP v7 DB

	GTAP v6 Data Base	GTAP v7 Data Base
Reference year	**2001**	**2004**
No. of Sectors	57	57
Sector Names	Forestry: FOR renamed as FRS; Coal: COL renamed as COA	No Change since Version 6
No. of Regions	87	113
Region Names	No Change since Version 5	Romania: ROM renamed as ROU
New Primary Regions	16 since Version 5	15
Updated I-O Tables	16 since Version 5	36
Regional Classification	New classification	Composite regions changed: 2 eliminated and 4 created.
Macroeconomic Data	2001, using World Bank Data	2004, using World Bank Data
Govt. Consumption	2001, using World Bank Data	2004, using World Bank Data
Trade Data	2001, COMTRADE through ERS, USDA	2004, COMTRADE through ERS, USDA
Domestic Support	2001 OECD PSE Data; some non-OECD members also included.	2004, New OECD dataset and different methodology.
Export Subsidies	2001	2004 or the latest available
MFA Export Tax Equivalent	2001, Francois and Spinanger	2004, Francois and Wörz
Agricultural Tariffs	2001, MacMAP and AMAD	2004, MacMAP
Merchandise Tariffs	2001, MacMAP	2004, MacMAP
Energy Data	1997 energy prices data updated to 2001 using price indices; 2001 IEA energy volume data	2000 energy prices data updated to 2004 using price indices; 2004 IEA energy volume data
Agricultural Factor Split	Updated using new literature	Updated using new literature
Income & Factor Taxes	2001 data from IMF	No change since Version 6
Demand Elasticities	Revised	Updated using 2004 GTAP Data
Trade Elasticities	Revised	No change since Version 6
Population Data	2001 Data from World Bank	2004, using World Bank Data
Time Series Trade	Extended to 2002 using new data for 1992-2002, by Mark Gehlhar	Extended to 2006 using new data for 1992-2006, by Mark Gehlhar

Data Goal

- **The Data Goal: To Improve the quality of our data products.**
  - Contributed IO Data (more on this by TW)
  - Comparison Programs
  - Addition and Improvement of Other Datasets
  - Versions and Database Documentation

Data Goal (Contd…)

Comparison Programs

Some Strategies to ensure better Data Quality:

- Compares and summarizes the differences between two versions of a database. This has been useful to identify and rectify some defects so far.

- Compares the results from a liberalization simulation with those of a previous version. This will be implemented soon.

Data Goal (Contd…)

Additions/Improvements of Tax Data

- Commodity taxes need close examination. We might use international data-sources to supplement the existing sources.

Additions/Improvements of Energy Data

- There are some in-built weaknesses in the way we build our energy data. E.g. Treatment of energy commodity prices. This requires specialized knowledge of energy-related issues!

Data Goal (Contd…)

Addition of Domestic Margins Data

- Domestic margins are crucial because they are important in themselves and also because they are the foundation for other things in the database.

- But it means a major change to the database construction procedures and in the contributed I-O tables.

- This is a multi-stage process and will be implemented over several versions. Two tasks are involved:
  - Alter I-O table procedures to include domestic margins
  - Implement into the construction programs

Data Goal (Contd…)

Additions/Improvements of Skill-Splits

- **The Center has been working with Rod Tyers to improve the skill splits required for the labor data in GTAP Data Base.**

Version Control and Documentation

- **Multiple versions: More on this by TW.**

- **Documentation book for the Data Base has been shortened and the full version is being made available publicly.**

Data Goal (Contd…)

TASTE Database

- **Mark Horridge and David Laborde have developed TASTE (Tariff Analytical and Simulation Tool for Economists) for disaggregated tariff-shocks and to split up trade and tariff data in the GTAP sectors.**

- **This is based on CEPII's MACMAPHS6 dataset.**

- **TASTE is available for free download from GTAP website.**

- **This has trade flows consistent with GTAP v7 Data Base.**

Thank you!

Comments and Suggestions about GTAP v7 Data Base and our data goal are most welcome!