



Services Trade

Robert M^cDougall

**Center for Global Trade Analysis
Purdue University**

Bilateral Services Trade Data

- **OECD**
- **CPB (NBEPA): Arjan Lejour & Nico van Leeuwen**
- **CGTA: Robert M'Dougall & Amer Ahmed**

Trade Data Inputs

- **bilateral merchandise trade: COMTRADE, USDA, ERS, Mark Gehlhar**
- **unilateral merchandise trade: IMF, CGTA, Hagenmeijer & M^cDougall**
- **Hong Kong reexport services: Gehlhar**
- **international transport: modal shares: Gehlhar**
- **travelers' expenditures: commodity composition: IO tables**

Trade Data Processing

- **Fill in missing countries.**
- **Balance margin transport services imports.**
- **Balance margin transport services exports.**
- **Allocate travelers' expenditures across commodities.**
- **Assemble.**
- **Balance against IEA-based energy trade estimates.**

Services Trade Data Pre-Processing

- **Clean IMF unilateral estimates.**
- **Construct IMF-based bilateral trade estimates.**
- **Balance CPB estimates against IMF-based.**
- **Overwrite IMF-based with CPB-based estimates.**

Incorporating Bilateral Data: Selected Effects

Origin	Destn	Service	Before	After
usa	deu	obs	7406	293
mex	usa	trv	1212	5847
can	usa	trv	1777	7008
usa	deu	trv	12861	5136
usa	can	trv	2850	8952
usa	esp	obs	2891	220
usa	jpn	trv	6806	14909
tur	rus	trv	396	3398
usa	can	obs	1904	6729
aut	deu	obs	1787	6477

Incorporating Bilateral Data: Description of Effects

- **less trade between Europe and the USA**
- **more between the USA and its neighbors**
- **more between the USA and Japan**
- **more between Turkey and its neighbors**
- **more within Europe**
- **more between Japan and its neighbors**
- **less between Europe and Japan**

Adjusting CPB to IMF Data: Rationale

- **CPB estimates lack full country coverage — still true:**
 - **17% of IMF countries**
 - **61% of IMF trade**
- **CPB estimates lack full commodity detail — now close.**
- **CPB estimates 2003-based — now 2004!**

Adjusting CPB to IMF Data: Method

- **Construct bilateral estimates from IMF data:**
 - **Pro-rate.**
 - **Zero out diagonal.**
 - **Rebalance.**
- **For each of the 29 CPB countries, from the IMF-based estimates, calculate total exports and imports of each commodity to the other 28.**
- **Balance the CPB estimates against those totals.**

Shares in 29-29-Country Trade

	CPB	IMF
Government services	1.9	2.7
Construction	1.3	1.9
Computer, IT	3.8	3.1
Personal, recreational	1.3	1.6
Insurance	3.2	3.6

Shares in 29-29-Country Travelers' Expenditures Exports

	CPB	IMF
MEX	3.4	2.0
USA	17.2	20.5
HKG	1.2	2.1
DNK	1.4	0.8
JPN	2.0	2.6
TUR	2.8	3.5
AUS	2.7	3.4
DEU	7.2	6.1
AUT	4.2	3.4

CPB Data

•cf. IMF:

- OECD value added
- CPB value added

•cf. Gehlhar:

- Methodology is now similar.
- Services trade offers fewer comparable reports.
- Services trade offers less commodity detail.

CPB Data

- **cf. IMF:**
 - **OECD value added**
 - **CPB value added**
- **cf. merchandise trade data**
 - **Gehlhar methodology**
 - **fewer comparable reports**
 - **less commodity detail**

IMF Data

- **multi-level commodity reporting**
- **commodity level inconsistent across countries**
- **false zeros**
- **getting better**

IMF Exports and Imports (\$B)

	Exports	Imports
Financial	138	60
Sea freight	126	218
Computer and IT	94	43
Insurance	56	94
Government	62	81
Travelers'	620	573
Royalties	116	134
Other land	45	36

Opportunities

- **IMF data cleaning**
- **construction of IMF-based bilateral trade data**
- **modal shares**
- **commodity composition of travelers' expenditure**