Services Trade

Robert McDougall

**Center for Global Trade Analysis
Purdue University**

Trade, 2004 (USD B)

	CBT	TE	Total
merchandise	8419	105	8524
non-margin services	1201	514	1715
transport margins	371	0	371
reexport margins	42	0	42
total	10033	619	10652

CBT: cross-border trade

TE: travelers' expenditures

Trade Data Inputs

- **bilateral merchandise trade: COMTRADE, ERS, Gehlhar**

- **services trade data set: CGTA preprocessing**

- **Hong Kong reexport services: Gehlhar**

- **international transport: modal shares: Gehlhar**

- **travelers' expenditures: commodity composition: IO tables**

Transport Margins

- **Merchandise trade data give imports CIF less exports FOB.**

- **Supplementary data give modal shares estimates.**

- **Services trade data give margin services exports and imports.**

- **Adjust services trade data to match merchandise trade data.**

Transport Margin Dimensions

	Mode	Provider	Cargo	Origin	Destn
CIF – FOB			■	■	■
modal shares	■		■	■	■
services exports	■	■			
services imports	■				■
GTAP supply	■	■			
GTAP use	■		■	■	■

Travelers' Expenditures

- **In services trade statistics, "travel" is a service, representing purchases by travelers.**

- **Purchases by travelers include services and goods.**

- **From an I-O accounting perspective, travelers' expenditures represent a form of final demand, differentiated from cross-border trade.**

- **Allocate travelers' expenditures to regular goods and services, then lump with cross-border trade.**

Services Trade Source Data

- **unilateral:**
  - **IMF**
  - **CGTA: Robert McDougall & Jan Hagemejer**
- **bilateral:**
  - **OECD**
  - **CPB (NBEPA): Arjan Lejour & Nico van Leeuwen**
  - **CGTA: Robert McDougall & Amer Ahmed**

IMF *Balance of Payments Statistics*

- **166 countries**

- **more than adequate commodity detail**

- **incomplete**

- **not necessarily updated**

- **false zeros**

- **well balanced within countries**

- **unbalanced globally**

Observation Count

	2000	2001	2002	2003	2004
Services	151	150	156	157	153
Other business	153	150	156	155	152
Trade	114	113	119	119	116
Leasing	114	113	118	118	115
Miscellaneous	130	129	133	118	130

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

CPB Data

- **29 countries**

- **11 service aggregate of 21 GSC services**

- **consistent nationally and internationally**

- **Gehlhar method: importers' and exporters' reports ranked for reliability, more reliable retained**

Services Trade 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.**

IMF-Based and CPB Bilateral

- **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.**

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.**

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

obs: other business services
trv: travelers' expenditures

Incorporating Bilateral Data: Description of Effects

- **less trade between Europe and the USA**

- **more between the United States and its neighbors**

- **more between the United States and Japan**

- **more between Turkey and its neighbors**

- **more within Europe**

- **more between Japan and its neighbors**

- **less between Europe and Japan**

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

Opportunities

- **IMF data cleaning: false zeros**

- **construction of IMF-based bilateral trade data: take merchandise trade as template?**

- **modal shares**

- **commodity composition of travelers' expenditure**