Comments on
“The Impact of FTAs on Trade Flows: An Application of the Gravity Model Approach by Urata Shujiro and Okabe Misa

Robert Scollay
APEC Study Centre
University of Auckland

Presented at
RIETI Policy Symposium
Tokyo, 22-23 March 2007
Assess trade creation/trade diversion effects of PTAs, using

- Relative trade shares
- Trade intensity indexes
- Gravity models
  - Aggregate
  - Disaggregate by PTA
    - Disaggregate by sector

- PTAs grouped by age:
  - Several years old: EU-15, NAFTA, AFTA, CER, Mercosur
  - Recent: ASEAN-China, EU-Mexico, Japan-Singapore, Japan-Mexico, Singapore-US, Korea-Chile
Issues with Gravity Models
(also applicable in principle to time series analysis based on trade shares and trade intensity)

Interpretation of coefficient on “RTA dummy”
- time series includes period in which some PTAs not operative
  - Urata/Okabe allow periods to be differentiated
- different liberalisation characteristics of FTAs
  - extent of liberalisation
  - time profile of liberalisation
    (Urata/Okabe do not allow for this)
- is “trade creation” appropriate term if estimating equation includes an RTA dummy but no trade diversion dummy?
  - total trade “explained” by the RTA will comprise trade creation and trade diversion in unknown proportions
Comparison of Periods with/without PTA: Do PTAs Change Existing Trends? (a) Trade Shares and Trade Intensity-1

“Older Agreements”

- EU-15: share rising pre-enlargement, tends to fall afterward, intensity relatively stable
- NAFTA: long-term rising trend in shares to 2000, slight upward trend in intensity
  - did NAFTA make a difference?
- AFTA: rising trend in shares from mid-1980s, intensity peaked in late 1980s (rises again from 1996 but does not regain previous peak)
  - what difference did AFTA make?
- Mercosur: strongly rising pre-agreement trends continued post agreement, then fell sharply (macroeconomic factors?)
- CER: insufficient pre-agreement observations
Comparison of Periods with/without PTA: Do PTAs Change Existing Trends?
(a) Trade Shares and Trade Intensity-2

“Younger” agreements

• diverse pre-agreement trends
  – rising long-term trends for ASEAN-China and (less strongly) Korea-Chile
  – falls from earlier peaks for Singapore-US and Singapore-Japan

• no sign yet that PTA as made a difference (too early to tell?)
Comparison of Periods with/without PTA: Do PTAs Change Existing Trends? (b) Gravity Models

(most estimated coefficients not significant)

- EU-15: coefficients generally negative pre-enlargement, initially positive post-enlargement, then turn negative
- NAFTA: become less negative, slowly post-agreement, sharply in 2004-5
- AFTA: turn positive post-agreement, then negative again after 2000
- Mercosur: turn positive with a lag post-agreement, then weaken
- CER: fluctuate, hard to see a trend
Extent and Time Profile of Liberalisation in PTAs

- PTAs do vary in extent of liberalisation
  - difference in pre-existing barriers as well as product coverage of the agreement
  - rules of origin can be crucial
  - trade facilitation measures can be important
- time profile could be important in some Asia-Pacific PTAs
  - AFTA: acceleration after East Asian crisis
  - CER: acceleration after 1989
- Australian Productivity Commission study illustrates possible approach
  - subjective judgements seem unavoidable
  - allowing for different degree and time profile of liberalisation seems to increase extent of trade diversion indicated
Some Additional Comments

- possible research agenda
  - attempt to associate strength of estimated effects with characteristics of PTAs?
  - explore whether changes in PTAs (e.g. acceleration of liberalisation in AFTA) associated with changes in estimated effects?
- finding of positive coefficient for overall effect of PTAs
  - but coefficients for PTAs covering largest share of world trade often negative (all years for NAFTA, some years for EU-15
  - need to introduce some weighting according to share of world trade?
- consistency between estimated coefficients in Tables 3 and 4 for individual agreements
  - close correspondence for some, big differences for others
- many HS chapters not included in the disaggregated analysis
  - useful to highlight key chapters of special interest e.g. apparel
  - but alternative disaggregation giving full product coverage would also be useful for interpretation of results?
Additional Points of Interest

- **AFTA**
  - often argued to have had limited effect
  - trade intensity is high and increasing after 1995
    - but intensity was higher pre-AFTA
    - what is attributable to AFTA?
  - gravity model results mixed but find significant degree of trade creation

- **EU exports of food and live animals to non-EU**
  - coefficient is strongly positive
  - but much of the effect may be due to export subsidies (assuming estimating equation does not control for this)
  - can this be considered trade creation?