

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

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# Methodology

**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?