

ARTNeT- GIZ Capacity Building Workshop on Introduction to Gravity Modelling:
19-21 April 2016, Ulaanbaatar

Session 7: Consolidation

Dr. Witada Anukoonwattaka
Trade and Investment Division, ESCAP
anukoonwattaka@un.org

Things to do and don't

1. **Do** using “unidirectional” trade flows on LHS, **Not** the total trade of a country pair.
 - X_{ij} or M_{ij} (NOT T_{ij})
2. **Do** using nominal terms, **Not** real terms
 - Price indices are already captured by the MRT terms
3. **Do** using aggregate GDP, **Not** GDP per capita

Things to do and don't

5. The “**estimated trade cost**” is needed, **Not** just distance.

ex. $\log \tau_{ij}^k = b_1 \log \text{distance}_{ij} + b_2 \text{contig} + b_3 \text{comlang_off} + b_4 \text{colony} + b_5 \text{comcol}$

6. Always think about **dimensions** of your dataset

- How many dimensions of your variables? exporter, importer, sector, time (and interactions among them)
- For sectoral gravity models, the simplest approach is to estimate separately, sector by sector.

7. Control variables that vary in the same dimensions as the FEs **CANNOT** be included in FE models.

- **Do** transform them if FE approach will be used (but it comes with a cost).
- BB approach can be an alternative.

Things to do and don't

8. If using BB approach, **Do** apply the Taylor approximation to **ALL** trade cost variables.

9. Be **extremely** cautious when interpreting the gravity results with possible endogeneity problems
 - The estimated coefficients will be biased
 - Possible solutions are using panel data, instrumental variable techniques, etc.

WRAP-UP

Using gravity models for policy research

1. **Do** aiming for theoretical gravity models, **Not** the intuitive ones
 - At least, appropriate dimensions of FE must be included in the gravity models.
 - OLS may not give an efficient estimates if
 - existence of zero trade flow
 - endogeneity problems
 - multi-dimension data
2. **Do** make all possible attempts to correct the endogeneity

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_3336

