

Augmented Gravity Models: Measurement and Trade impact of Policies: day 1

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Outline

1. Presentation of the
 - Instructors
 - Participants
2. The object of the workshop
3. The organization of the workshop

1. Presentation of the instructors

1. Luca De Benedictis:

<http://docenti.unimc.it/luca.debenedictis>

2. Luca Salvatici:

http://dipeco.uniroma3.it/default.asp?contenuto=vedi_docenti&id=103

1. Presentation of the participants

- Blessing Chiripanhura (Zimbabwe)
- Moyo Busani (Zimbabwe)
- Pindiri Carren (Zimbabwe)
- Kone Youssouf (Cote D'Ivoire)
- Aka Brou Emmanuel (Cote D'Ivoire)
- Okodua Henry (Nigeria)
- Ajetomobi Joshua (Nigeria)
- Nchake Mamello (Lesotho)
- Sakyi Daniel (Ghana)
- Ramlall Indranarain (Mauritius)

2. The gravity model: definition

- Econometric model based on ex-post analysis (analysis based on information available after the policy has been implemented and its performance observed)
- Dutch economist and Nobel laureate, Jan Tinbergen, was trained in physics and thought of comparing the trade between countries to the force of gravity between objects.
- In physics, objects with a larger mass, or those that are close together, have greater gravitational pull between them.
- In economics, the gravity equation for trade states that countries with larger GDPs, or that are close to each other, will have more trade between them.

2. The gravity model: caveats

- It looks easy: all you need for a basic specification is data on bilateral trade, GDP and your favorite explanatory variable
- Using big data set you are likely to find significance (standard errors involve the inverse of the square root of the number of observations): high explanatory power (R-squared between 0.65 and 0.95)...
- ...with no theoretical foundations (initially)

However, it does provide useful insights about the interactions between economic mass, trade policies and bilateral flows: trade (but also migrations, FDIs, etc.)

3. The (brief) story of the workshop conception

- IFPRI guide (2013):
<http://www.agrodep.org/model/gravity>
- Workshop proposal (2014)...
- ...accepted (2015)
- The book: *The Trade Impact of European Union Preferential Policies. An Analysis Through Gravity models*
<http://www.springer.com/us/book/9783642165634#aboutBook>

3. An overview of the program: day 1

Morning:

- The gravity model: Data and measurement issues: L. De Benedictis and D. Taglioni “The gravità model in internazionale trade” Chapter 4

Afternoon:

Hands-on session: replication with country focus

3. An overview of the program: day 2

Morning:

1. The gravity model: theoretical issues

- L. De Benedictis and D. Taglioni “The gravità model in internazionale trade” Chapter 4
- J. Anderson «The Gravity Model», *Annual Review of Economics*, 3, 2011

2. The gravity model: empirical issue

- L. Salvatici, «The Gravity model in International trade»

Afternoon:

1. Participants presentations: on-going research

2. Hands-on Stata session: IFPRI guide file(s)

- M.P. Cipollina and L. Salvatici «Hands-on gravity estimation with STATA»

3. An overview of the program: day 3

Morning:

1. Meta-analysis of the literature
 - “Reciprocal trade agreements in gravity models: a meta-analysis” (with Maria Cipollina), *Review of International Economics*, Volume 18, Issue 1, February 2010, Pages: 63-80.
2. Beyond trade: papers using gravity models
 - A. Abbott and M. Silles “Determinants of International Student Migration”, *World Economy*, 2015
 - M. Bratti, L. De Benedictis and G. Santoni «On the pro-trade effects of immigrants», *Review of World Economics*, 2014

Afternoon:

1. Hands-on Stata session (conto.): IFPRI guide file(s)
 - M.P. Cipollina and L. Salvatici «Hands-on gravity estimation with STATA»
2. Hands-on Stata session: meta-analysis
 - M.P. Cipollina and F. Pietrovito “Trade impact of European Union preferential policies: a meta-analysis of the literature” Chapter 5

3. An overview of the program: day 4

Morning:

1. Trade policies impact: multilateral policies
 - A. Rose “Do We Really Know That the WTO Increases Trade?”, *American Economic Review*, 2004
2. Issues in measurement of trade policies
 - M.P. Cipollina and L. Salvatici “Measuring protection: mission impossible?”, *Journal of Economic Surveys*, Vol. 22, Issue 3, pp. 577-616, July 2008

Afternoon:

1. Hands-on Stata session on multilateral trade policy impact
2. Discussion groups

3. An overview of the program: day 5

Morning:

1. Trade policies impact: preferential policies
 - M.P. Cipollina, D. Laborde and L. Salvatici “The tide that does not raise all boats: An Assessment of EU Preferential Trade Policies”, Roma Tre Working Paper, 2014
2. Gravity model and propensity score matching
 - B. Arpino, L. De Benedictis and A. Mattei “Implementing Propensity Score Matching with Network Data: the Effect of GATT on Bilateral Trade”, Working Paper Pompeu Fabra, 2015

Afternoon:

1. Hands-on Stata session on preferential trade policy impact
 - M.P. Cipollina and L. Salvatici “Trade impact of European Union preferences”, Chapter 6
2. Discussion of participants on-going research