

Unity in diversity : studies on micro and macro panel data sets

Citation for published version (APA):

de Crombrugghe, D. P. I. (2010). *Unity in diversity : studies on micro and macro panel data sets*. [Doctoral Thesis, Maastricht University]. Universiteit Maastricht. <https://doi.org/10.26481/dis.20100930dc>

Document status and date:

Published: 01/01/2010

DOI:

[10.26481/dis.20100930dc](https://doi.org/10.26481/dis.20100930dc)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

PREFATORY PROPOSITIONS – BIJGEVOEGDE STELLINGEN

behorende bij het proefschrift

UNITY IN DIVERSITY: STUDIES IN MICRO AND MACRO PANEL DATA SETS

door

DENIS DE CROMBRUGGHE

1. *Similar and different* It is a misconception that vague, qualitative similarities between different observation units are useless for statistical purposes.
(Chapters 1 and 2)
2. *Flavours of statistics* Popular flavours in statistical inference are parametric, non-parametric, semiparametric and seminonparametric; there is also a *hyperparametric* variant, better known as Bayesian method. Linked Estimation is a case in point.
(Chapter 2)
3. *Covariance matrices* Estimation criteria like unbiasedness and minimum distance are not meaningful for covariance matrices. Generalisations of these criteria are required.
(Chapter 3)
4. *Fixed versus Random Effects* The terminology of fixed versus random effect models is quite standard in statistics and econometrics. Nonetheless, it is nonsensical.
(All chapters)
5. *Agreeing to differ* Men kan vaak vaststellen dat simulatie-experimenten met alternatieve econometrische modellen uiteenlopende bevindingen opleveren. Daar volgt *niet* zonder meer uit dat de modellen in kwestie tegenstrijdig zijn, en elkaars geloofwaardigheid opheffen.
(“Macro-economische modellen voor evaluatie: Tegenstrijdig of onvergelijkbaar?”, in *Overheidsinterventies: Effectiviteit en Efficiëntie*, Vijftiende Vlaams Wetenschappelijk Economisch Congres, Notulen en Open Forum, Leuven, 1981, pp. 73-77.)
6. *Multicollinearity diagnosis* The correlation matrix of estimated coefficients is a simple transformation of the familiar coefficient covariance matrix. In contrast with the covariance matrix, it is rarely provided in the output of regression analyses. Yet, it is less subject to sampling error, easier to interpret, and a valuable regression diagnostic.
(“The Correlation Matrix of Estimated Coefficients”, C.O.R.E. Discussion Paper 8307, 1983.)
7. *Pooling micro and macro data* Income elasticities in repeated surveys appear to vary through time. Hence, models meant to pool aggregate time series with household-level budget surveys should account for an evolving structure.
(D. de Crombrughe, F.C. Palm, J.-P. Urbain, “Statistical Demand Functions for Food in the USA and the Netherlands”, *Journal of Applied Econometrics* 12, 1997, pp. 615-645.)

8. *Robust standard errors* For safe inference in regression analysis it is recommended to use a robust variance formula. The robust standard error is, so to speak, the condom of econometrics. It presents a similar flaw.
9. *Descartes on his head* René Descartes got it wrong in 1637. Following his example, we are taught to draw coordinate axes as long arrows, one pointing to the *right* ('the x -axis') and one pointing *up* ('the y -axis'). It would have been less confusing, to students in both East and West, if he had chosen to let the y -axis point *down*. Alternatively, to restore consistency, we could decide to fill pages, tables and matrices from the bottom up; and on clock faces, swap the XII for the VI.
10. *Science inflation* Funding rules rewarding researchers for long lists of publications contribute to ecological wastage and to science inflation.
11. *Bite the bullet* Even though the origin of the phrase "to bite the bullet" is a bit obscure, the words nevertheless feel accurate.

Maastricht, 30th September 2010