

# Report on Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague

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| <b>Student:</b>             | <b>Carlos Couceiro Vlasak</b>                               |
| <b>Advisor:</b>             | <b>Prof. Ing. Michal Mejstřík, CSc.</b>                     |
| <b>Title of the thesis:</b> | <b>Export Decision Support Model for the Czech Republic</b> |

## **OVERALL ASSESSMENT** (provided in English, Czech, or Slovak):

Considering myself a specialist in International Trade Economics, it is a difficult task for me to work out an unbiased report on a thesis that deals with the topics of pure trade theories without considering their existence.<sup>1</sup> In addition, there is an applied modification of the pure theories – that of the gravity models of trade – whose list of publications reaches thousands of titles and which also thrives to become (and actually is) an export decision support instrument concentrating also on the country-product export selection. Instead, the author tended to opt for various ad hoc applications of pragmatic proxies underpinned by neuron nets methodology that reveal high correlation with trade flow indicators, which are practiced in the business studies (i.e. not in economics) and their business journals. Therefore, in order to clarify my assessment criteria, I have acquiesced in accepting the following working assumptions:

- a) Data mining can become a useful instrument in the field of trade flows selection since the pragmatics behind their empirics keeps its validity for some time.
- b) The subjective component in real trade selection is better captured by their approach than by the pure theory.
- c) The pragmatic/heuristic/intuitive analyses based on eclectic data mining are better understood by businessmen and bureaucrats (i.e. the policy-makers) than the approach based on theoretical reasoning, whose technical intricacies grew in the last 25 years enormously.

*Then the outcome of my criteria is to assess to which part the outcomes of the methodology applied in this thesis are compatible with the above mentioned assumptions and thus pragmatically more competitive than the gravity models.*

The extensive **literature review** (pp. 8-26) tries to provide arguments why and how the pragmatic or intuitive business approaches to trade selection can become suitable instruments to rational decision-making. I still take it for a shortcoming that (at least in this part) the theoretical models of economics are not explicitly considered and even a crucial shortcoming that the existence of gravity models was completely omitted.

Remark: much more of the gravity model principles could be included into the framework of this thesis than merely considering Anderson and Wincoop (2004) twice in the thesis. Definitely, the central idea of “distance” in gravity models could have many implications for improvements in the proposed EDSM.

What concerns the **contribution**, I have got to agree that the strongest aspect of the thesis rests in including the projection of market growth (provided it is done at the level of

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<sup>1</sup> Those few parts that deal with the pure theory (e.g. pp. 47-49) bring in more confusion than due information.

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enterprise products or largely de-composed industries) combined with market size, which allows the analysts to abandon the mere macroeconomic characteristics of growth.

I also appreciate that the author opted for the scaling of RCA by distinguishing the foreign and domestic value added in exports.

The care given to alternative measures of similarity (of various vectors of countries' trade and production structures) deserves praise, but haste for the final selection of the Euclidean distance deserves the opposite.

The contribution of the selected heuristic analysis could be enhanced if the aspect of competitiveness would be expanded, e.g. by including the methodology proposed in Fagerberg, Jan & Srholec, Martin & Knell, Mark, 2007. "The Competitiveness of Nations: Why Some Countries Prosper While Others Fall Behind," World Development, 35(10), pp. 1595-1620.

As to the **methodology**, the non-theoretical, highly heterodox heuristic system of "filtering" was selected. The resultant multicriteriality implies that the weights of individual criteria open too much space to subjectivity, which in strictly econometric analysis by gravity models would be eliminated by statistical characteristics of estimated coefficients.

The theoretical discussions about comparative advantages on pp. 47-49 are based on very limited heuristic interpretation of the Ricardian theory. It is not mentioned there that the index of LFI (Lafay, not Laffay !) is one of many indicators of REVEALED comparative advantages (describing actually the intensity of Intra-Industry Trade), which is very simplified (and distorted) measure of real comparative advantages based on relative productivities.

The very short remark about the Prody index needs more detailed definition (e.g. explaining what is RCA<sub>ij</sub>) and the explanation how it was related to the assessment of the level of sophistication of a product, which the original Prody (Hausman) index intends to quantify. In connection to that it is not explained more clearly what what concretely is meant by the hypotheses H1 on p. 51 and **why**.

**Style and form:** The text is generally reader-friendly but the quality varies. E.g. the section between pp. 45-51 is particularly sloppy and needs revision.

A check should be done for reducing typos and errors in grammar and semantics.

The extent of this thesis (my estimate is: some 150 000 characters or more) exceeds substantially the recommended length of 90 000 characters). Too many passages target the quantity that crowds out the quality of presented analysis. Said in Czech: méně by bylo více.

**The weakest side of the proposed EDS model rests in untamed heuristics where the multicriterial analysis based on a heap of indicators (many of them very useful, if taken individually) lacks credible weights, direction of causality, selection of variables (filtering), tests of mutual exogeneity versus colinearity and certainty about non-cointegration (interaction effects). It shares many features with the gravity models but lacking the**

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econometric rigor and theoretical underpinning of the latter. The robustness tests applied on the results in this thesis are too ad hoc in order to refute this statement.

I do not think that the subjective component in real trade-flow selection is better captured by the proposed intuitive approach than by the models derived from economic theory, even though I could agree that EDSM can have a pragmatic value (e.g. as a placebo) that could be appreciated by the businesses and policy-makers. Nevertheless, I doubt that the claim of the author on p. 78 that the importance of the EDSM is immense, is credible. Last but not least, I must appreciate the commitment and fervour with which the author approached the topic. He evidently tried hard to bring the job to a complete form.


*Question that could be answered at the examination: Could you explain how is it possible that the Russian market in 2010 offered (according to your results in Table 6) 2,5-times more opportunities to Czech trade than Germany? Is the „opportunity“ correlated with the „potential to trade“?*

**SUMMARY OF POINTS AWARDED** (for details, see below):

| CATEGORY                              | POINTS    |
|---------------------------------------|-----------|
| Literature (max. 20 points)           | 16        |
| Methods (max. 30 points)              | 12        |
| Contribution (max. 30 points)         | 17        |
| Manuscript Form (max. 20 points)      | 16        |
| <b>TOTAL POINTS</b> (max. 100 points) | <b>61</b> |
| <b>GRADE</b> (1 – 2 – 3 – 4)          | <b>2-</b> |

**NAME OF THE REFEREE:** Vladimír Benáček

**DATE OF EVALUATION:** 19.8.2016



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**Referee Signature**

**EXPLANATION OF CATEGORIES AND SCALE:**

**LITERATURE REVIEW:** *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

Strong                  Average                  Weak  
20                          10                          0

**METHODS:** *The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.*

Strong                  Average                  Weak  
30                          15                          0

**CONTRIBUTION:** *The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.*

Strong                  Average                  Weak  
30                          15                          0

**MANUSCRIPT FORM:** *The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.*

Strong                  Average                  Weak  
20                          10                          0

**Overall grading:**

| TOTAL POINTS | GRADE    |                |                           |
|--------------|----------|----------------|---------------------------|
| 81 – 100     | <b>1</b> | = excellent    | = výborně                 |
| 61 – 80      | <b>2</b> | = good         | = velmi dobře             |
| 41 – 60      | <b>3</b> | = satisfactory | = dobře                   |
| 0 – 40       | <b>4</b> | = fail         | = nedoporučuji k obhajobě |