## Essays on Matching Markets Mário Vozár Ph.D. Dissertation

# Review

February 2013

Dear Members of the Dissertation Committee,

thank you for the invitation to review the Ph.D. Dissertation Thesis of Mr. Mário Vozár. I have read it thoroughly with great pleasure and now I am ready to provide you with an evaluation of the thesis, as well as with a recommendation on whether Mr. Mário Vozár should (or should not) be granted a Ph.D. defense and eventually be awarded a Ph.D. degree based on this Thesis.

The Thesis develops a well-rounded account of an important matching market, the marriage market. The first essay develops a theoretical model explaining how increased income prospects of females affect the structure and stability of the marriage market. By explicitly accounting for dynamic changes in wealth and physical attractiveness, the model provides an explanation of divorce, i.e. incentives to re-match, and an increased divorce rate due to improved female income prospects. The second essay tests the importance of search frictions and initial uncertainty about match quality for the stability of matches using a unique dataset well suited for this study. The final essay empirically tests the effects of internet usage on the stability of marital matches.

The Thesis demonstrates author's proficiency in theoretical as well as empirical modeling of an important socio-economic phenomenon, matching in the marriage market. Overall, the thesis provides invaluable scientific insights and is a relevant contribution to the literature.

Among the points which I think deserve Mr. Vozár attention in the future are the following:

#### Essay 1:

- 1. I find the link between changing income prospects and divorce very relevant not only theoretically, but also with regard to current socio-economic challenges. For example, the growing inequalities we observe in many advanced economics are partly due to the changing family structure, which is in part a function of divorce. If changing income prospects affect divorce rates, then changing inequalities do as well, but in an uneven way. This may create vicious and possibly fortuitous cycles that are very relevant also from the policy perspective.
- 2. The model itself is well developed and presented, although it would be desirable to provide more intuition behind some of the propositions, lemmas and conditions.
- 3. At a very general level, I am wondering to what extent (i) income prospects drive divorce, (i) divorce expectations drive career decisions/income prospects, and (iii) a separate variable (call it e.g. emancipation) may drive both. This is not a critique of the model, but a discussion would have been desirable.
- 4. To make this a publishable paper and empirical test is needed for most journals (and the author has done one, see essay 2).

### Essay 2:

- 1. This is a nice empirical study of the effect of search frictions and initial uncertainty about match quality for the stability of matches. As the study uses a unique dataset well suited for this study, this potentially is a significant contribution to the literature. More concrete comments:
- 2. The motivation of the paper needs to be improved. Loosely speaking, the paper uses a novel dataset and innovative measurement to show very standard results. The puzzles and controversies this paper sheds light on should be more explicitly elaborated
- 3. The exclusion criterion of the Heckman selection model needs to be more discussed and better justified.
- 4. Measurement of the key variables (individual quality, match quality etc) is an important pillar of the essay. The authors make a number of convincing arguments about how they measure these variables, but conceptually I would in this respect imagine a tighter reference to other sports literature, or perhaps even testing the assumptions with dancers themselves, perhaps using a simple questionnaire.
- 5. Could it be that match separations are joint decisions? One would ideally model individual and joint decisions, and draw implications for empirical analysis, which then would be executed accordingly.
- 6. Although the substance is in general laudable, the exposition is at points feeble.

#### Essay 3:

- 1. This essay adds to the growing literature on the relationship between improvements in ICT and matching markets.
- 2. If the idea is to measure the effect of internet use for matching in romantic relationships and we only have a proxy (general internet use), we have a measurement issue on the right hand side, which could be taken care of. Although I agree that the correlation is probably high. However:
- 3. The relationship between the proxy and the underlying measure may depend on age. This brings me to a broader issue: Younger and older people have different relative costs and opportunities when it comes to searching for romantic matches. Students and workers in particular. The relative cost and expected returns in different search strategies may differ. Consider students in school/university environment, with many potential matches, and low opportunity costs of searching. Workers on the other hand socialize in social networks of co-workers of whom only a smaller fraction may be relevant, either because they are matched already or the age distance is too high. Also, the opportunity costs of searching are higher. The author indeed finds different effects for different age categories. Could they partly be explained by what is outlined above?
- 4. When studying the relationship between two variables that share the same trend over time in panel data (also consider unit root), it is hard to disentangle any confounding factors that may be driving each of them unrelatedly. With the divorce rates and internet penetration both steadily increasing, and also the age at first marriage increasing, this deserves discussion.
- 5. The exposition needs a brush-up.

To summarize, the presented analysis has a clear potential to be published in refereed journals and Mr. Mário Vozár demonstrates in his Thesis that he is capable of producing high-quality research in his future career. The Thesis is already now a worthy contribution to the growing

literature on individual perceptions of economic reforms. Therefore, I am convinced that the Thesis warrants a dissertation defense and eventual award of a doctoral degree.

Sincerely Yours,

Martin Kahanec