

# Opponent's Report on Dissertation Thesis

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Author:	<b>Petr Janský</b>
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Title of the Thesis:	Microeconomic analysis for evidence-based policy
Type of Defense:	<b>DEFENSE</b>
Date of Pre-Defense:	October 2, 2013
Opponent:	<b>Prof. Richard Blundell</b>

Address the following questions in your report, please:

- a) Can you recognize an original contribution of the author?
- b) Is the thesis based on relevant references?
- c) Is the thesis defensible at your home institution?
- d) Do the results of the thesis allow their publication in a respected economic journal?
- e) Are there any additional major comments on what should be improved?
- f) Were your comments raised at the pre-defense, addressed in the dissertation submitted to the regular defense? (The pre-defense report is enclosed below)
- g) What is your overall assessment of the thesis? (a) I recommend the thesis to be defended without major changes; (b) The thesis is not defensible.

*(Note: The report should be at least 2 pages long.)*

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## **Content of the Report:**

This is an excellent thesis covering three original and important policy relevant research chapters. The contributions are largely applied and empirical in nature. They display a detailed knowledge of the field and make provide perceptive insights. I would expect all three contributions to be publishable in respected academic refereed journals.

The thesis is comprehensive and addressed all concerns I raised in my pre-defense report. I recommend the thesis to be defended without major changes. It is of a quality that would be awarded a PhD at my institution.

There are substantive original and new insights into consumer behavior in the Czech Republic. I expect these to have an important impact on policy design and evaluation. The thesis displays a clear understanding of the existing literature that is fully referenced in the thesis.

The key policy evaluation issue addressed in this thesis is the impact of VAT changes, Excise duty changes, and price changes more generally on families in the Czech Republic. VAT and Excise duty reform are key policy reforms with the EU and have also been a central part of

tax reform in the Czech Republic. Making sure the revenue and demand predictions are reliable requires a careful analysis of household behaviour. To carry out this analysis the analysis in the thesis constructs a detailed microeconomic model of consumer demand behaviour using household micro-data. This work allows for quite general income and substitution effects, enabling a robust study of the likely changes in demand patterns, in government revenue predictions and in the welfare costs and gains from VAT and Excise reform, as well as relative price changes in general. This policy analysis can be carried out for different types of households and at different income levels.

The underlying model uses the QUAIDS specification for preferences that has been shown to provide a reasonably reliable and flexible specification for household behaviour. The econometric analysis is commendable. Estimation is carried out carefully recognizing potential endogeneity and measurement issues. For the most part the implied elasticities look plausible. The thesis now recognizes the importance of studying the stability of these model estimates and has already made progress in this direction. Indeed, the use of within country price variation using separate prices for the Prague area is another attractive feature of the analysis. Overall the estimated model performs quite well.

The overall the estimated price and income elasticities accord with results for similar sample of households from other countries. The split between necessities and luxuries seems sensible. Most importantly the results point to important differences in government revenue predictions once behaviour responses are accounted for. The simulations show the power of this analysis. An ex-ante simulation of the 2013 reform proposals is analyzed. This could not be done without the behaviour simulation model estimated in the thesis. The results show a significantly different impact on government revenue in comparison to the simple analysis that assumes no behavioural change,

The thesis then goes on, in the second substantive chapter, to examine the impact of excise duty reform. This is more difficult for three key reasons: First, data reliability is always more problematic. The measurement of consumption of items like tobacco and petrol is hampered by under reporting and cross-border shopping issues. Second, consumers may not follow a simple rational choice model in their consumption decisions for these commodities. Third, the relationship between the duty level charged and the consumer price is not straightforward. Duties are not proportional and may not be fully passed on to consumers. Many of these issues exist for VAT analysis but are likely to be much more important for Excise duties where the product market may also be less competitive. These issues are clearly understood and are generally studied very carefully in the thesis.

The discussion of the elasticities and their plausibility is very good. The estimated elasticities are somewhat less plausible than in the standard VAT goods demand case and this is acknowledged in the discussion. The thesis is clear about the assumptions that have to be made, particularly with regard to the role of cross-border purchases and purchases by foreign consumers. Overall the work on excise duties, and the simulation of the excise duty reforms, provides an important advance in understanding behaviour and the impact of policy reform in the Czech Republic.


The final contribution of the thesis is in the study of the measurement of inflation and the possibility of differential rates across different demographic groups. This is important from both a methodological and a policy perspective. To understand the impact of changes in taxes, transfers and nominal incomes more generally one has to adjust for cost of living changes. It is only under the very strongest of restrictions on behaviour that we can assume that all

households face an equal change in the cost of living when relative prices change.

The analysis in this chapter constructs a unique inflation rate for each household according to their shares of expenditures on different items. This turns out to be very informative, showing a higher overall rate of inflation for pensioners. Moreover, there is a nice analysis of the important impact of allowing for differential prices in Prague relative to the remainder of the Republic.

In summary this is an original and thoughtful applied thesis. It provides three important and original contributions that address both methodological and policy issues using detailed micro-data on households. I expect these chapters to be publishable in refereed journals.

I recommend the thesis for defense without major changes.

Date:	December 4 <sup>th</sup> 2013
Opponent's Signature:	
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