

# Advisor's Report on Dissertation Thesis

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Author:	<b>Petr Gapko</b>
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Title of the Thesis:	Three Essays on Credit Risk Quantification
Type of Defense:	<b>DEFENSE</b>
Date of Pre-Defense:	April 16, 2014

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 Do the results of the thesis allow their publication in a respected economic journal?
- d Are there any additional major comments on what should be improved?
- e Were the comments raised at the pre-defense, addressed in the dissertation submitted to the regular defense?
- f 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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### **Can you recognize an original contribution of the author?**

For I have co-authored all the the three „clipped“ papers, I have, so to say, an insider information about what is and what is not Peter's contribution. Generally, it could be said that Petr came to me with a real-life problem and intuitive ideas how to deal with it and my task was to give the ideas rigorous form. So, our work was a typical collaboration of an economist and a mathematician. Particularly, the Peter's original contribution is all the except several more advanced mathematical parts and a numerics of the transformation of the factors in the third paper (which is due to Jan Vorisek).

### **Is the thesis based on relevant references?**

Generally yes. As credit risk is now a widely studied area, the work surely does not exhaust fully the state of the art. However, the specialty of the thesis, i.e., multi-factor generalizations of the Vasicek's model, are surveyed sufficiently, as far as I know.

### **Do the results of the thesis allow their publication in a respected economic journal?**

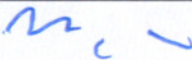
Two of the three „clipped“ papers have been already published in impacted Czech, Slovak, respectively, journals. The third one is currently under review in relatively high ranked international journal. Even if I expect suggestions and comments, the third paper, in my honest opinion, has chances for publication.

### **Are there any additional major comments on what should be improved?**

Many things could be improved, of course, but this an inherent part of scientific work. I suppose that Petr incorporated a vast majority ofl comments and suggestions arisen during the pre-defense into the final version. In my opinion, the topic was exhausted sufficiently.

### **What is your overall assessment of the thesis? (a) I recommend the thesis for defense without substantial changes, (b) the thesis can be defended after revision, (c) not-defendable in this form.**

I recommend the thesis for defense without substantial changes.

Date:	
Advisor's Signature:	
Advisor's Affiliation:	RNDr. Martin Šmíd, Ph. D.  Institute of Information Theory and Automation, Academy of Sciences of the Czech Republic