

Advisor's Report on Dissertation Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague
Opletalova 26, 110 00 Praha 1, Czech Republic
Phone: +420 222 112 330, Fax: +420 222 112 304

Author:	PhDr. Petra Buzková
Advisor:	Doc. PhDr. Petr Teplý, Ph.D.
Title of the Thesis:	Credit Derivatives Market during Recent Financial Crisis
Type of Defense:	DEFENSE
Date of Pre-Defense:	February 15, 2017

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 or another respected institution where you gave lectures?
- 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) 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 indicated in my comments, (c) not-defendable in this form.

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

A. Introductory remarks

Credit risk management is of great importance for every financial institution. The 2007-2009 global crisis followed by the Eurozone sovereign debt crisis have highlighted the significance of this kind of risk. As a result, Petra Buzková has chosen an interesting and important topic for her doctoral thesis *Credit Derivatives Market during Recent Financial Crisis* dealing with credit risk from two points of view: i) product-level view: proper valuation of a Collateralized Debt Obligation (CDO) and of a Credit Default Swaps (CDS); and market infrastructure of credit derivatives. As her advisor, I have cooperated on the thesis with Petra very closely and co-authored the first essay. The thesis has been supported by two grants (The Grant Agency of Charles University (GAUK No. 114109 - Alternative Approaches to Valuation of Collateralized Debt Obligations) and The Czech Science Foundation (GACR No. 14-02108S The Nexus Between Sovereign and Bank Crises), what further underpins the relevancy of the analyzed topic.

The work consists of three related essays. The first one *Collateralized Debt Obligation Valuation Using the One Factor Gaussian Copula Model* discusses Collateralized Debt Obligation (CDO) valuation based on data before and during the 2007-2009 global crisis. Petra has discovered four main deficiencies of the CDO market. I would like to stress that mispriced correlation of the underlying assets has been identified also by other researchers as one of the caveats when creating a diversified portfolio. Put differently, mispriced correlation might result

in systemic risk of financial markets when many investors invest into assets, whose performance is correlated (in reality) but not captured in valuation models (e.g. subprime mortgages during the global financial turmoil).

In the second essay *On the Reliability of a Credit Default Swap Contract during the EMU Debt Crisis* Petra analyzes CDS prices in the EMU in the 2009-2013 period and calculates the fair price of a CDS using the basic and commonly used model, which extracts the default probability function from bond prices with different maturities. She concludes, among others, that investors have better distinguished between individual member states since the EMU debt crisis, what might be surprising. Moreover, Petra reveals that in the case of the less risky EMU countries (Austria, Belgium, Finland, France and the Netherlands), the dependence between the market and CDS model price increased. As a consequence, it might be concluded that trust might have increased, but it definitely did not decrease. One of the reasons was probably the creation of the European Stability Mechanism, an EMU bail-out founded in 2011.

In the third essay *Impact of the 2014 Change in ISDA Credit Derivatives Definitions on Sovereign CDS Market* Petra discusses regulatory changes of credit derivatives market through application of a seemingly unrelated regression (SUR) model and shows that new definitions of credit derivatives increased the link between the CDS price as a hedging instrument and the bond spread as a hedged instrument. The original idea of changing the new ISDA definitions was to increase the efficiency of CDS spreads. However, based on Petra's analysis, such an effect is either not observed or very limited. It is worthwhile to mention and many regulations of financial markets do not bring positive effects as originally expected by regulators. For instance, the multilateral interchange fees (MIF) regulation of card-based payment transactions has not yielded lower retail prices as assumed by the European Commission). Last but not least, unintended consequences of regulation usually result from an improper Regulatory Impact Assessment (RIA) or by distorted incentives by lobbyists and politicians.

B. An original contribution of the author

As already mentioned, the subject of the presented thesis is highly topical. Moreover, two of the essays have been published in journals with an impact factor and one was circulated in a peer-reviewed journal. The above-mentioned facts indicates that Petra's work shows her original contribution.

C. Relevant references

The submitted thesis is based on relevant references. In line with my previous report, references have been updated, what improved the quality of the thesis.

D. Defense of the thesis at a respected institution

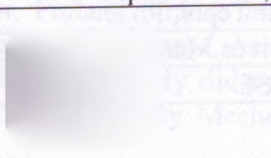
Three essays forms the thesis and two of the have been published in respected journals and went through a thorough review external process. This procedure is not common standard at respected foreign universities I have visited. Therefore I believe, that the thesis would be defendable at a respected foreign institution.

E. Publication in a respected economic journal

As stated, two papers have been already published in journals with impact factor (Czech Journal of Finance and Economics and Prague Economic Papers), what fulfills the requirements set by the IES.

F. Overall assessment of the thesis

To summarize, the thesis by Petra shows that she has developed a solid academic approach, namely to identify and investigate hypotheses, and to draw relevant conclusions from that. However, I believe, that the thesis' title might have been slightly different. The chosen topic of credit derivatives is highly attractive subjects which makes her contributions valuable, in particular to academics, regulators and practitioners. I consider the thesis as very good work and **I recommend the thesis for defense without substantial changes.**

Date:	September 10, 2018
Opponent's Signature:	
Opponent's Affiliation:	Doc. PhDr. Petr Teplý, Ph.D. IES FSV UK