# Opponent's Report on Dissertation Thesis

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| Author: | **Adam Kučera** |
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| Title of the Thesis: | Topics in Yield Curve Modeling |
| Type of Defense: | **DEFENSE** |
| Date of Pre-Defense | November 18, 2020 |
| Opponent**:** | prof. Ing. Martin Mandel CSc. |

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 defendable 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.)

The yield curve is widely used in the current practice. It is used for forecasting the development of the economic cycles and inflation. It is a part of the prediction models of central banks. It is widely applied for evaluation of financial and real assets. The assessed dissertation consists of three research papers published in respected economic journals (North American Journal of Economics and Finance and Czech Journal of Economics and Finance) and in National Bank of Slovakia - Working and Discussion Papers. The individual parts of the dissertation were therefore already subjected to a standard review procedure. All parts of the research are thematically focused on the analysis of the yield curve and form a homogeneous whole. The dissertation also contains the required unifying introduction (i.e. General Introduction), where the author explains his methodological approach. The title of the

dissertation has been clarified, more specified (i.e. "Topics in Yield Curve Modeling"), and now fully corresponds to the overall contents of the dissertation.

 In my report, which was prepared for the needs of a "small defense" of the dissertation, I formulated several partial comments and questions. I evaluate positively that the author of the dissertation reacted with professional erudition in all cases. In the introductory chapter, the author acceded to deeper historical anchoring of the analyzed problem in the context of J. M. Keynes's approach. In answering another question of mine, the author distinguishes between the approach of J. M. Keynes and J. R. Hicks and justifies why he prefers the methodological approach of J. R. Hicks. The author logically explained the different analytical significance of 10-2 year and 10-year 3-month interest spreads for forecasting the development of the economic cycle. On the whole, I am also satisfied with the responses to questions that were related to the field of macroeconomic theory and financial theory in the context of the yield curve. Personally, I think that empirical research in the area of the yield curve will always have limitations stemming from the fact that the values of risk premiums (and their signs) will be determined by the current prevailing speculative position and the variability of market risk perception in a particular situation. Personally, I am closer to the theories that are based on the analysis of both sides of the balance sheet of market parties and also analytically distinguish between bid, ask and mid rates. I think this situation is similar to the foreign exchange market, where market makers evaluate current foreign exchange positions (own and counterparties') and their quotations, resp. bid-ask spreads, reflect the future liquidity flows in the foreign exchange market. The width of the bid-ask spread increases with the maturity of the contract, but the direction of its deviation depends on the expected future purchases or sales of individual currencies.

Conclusions

The main part of the dissertation, i.e. three research papers published in respected economic journals (North American Journal of Economics and Finance and Czech Journal of Economics and Finance) and in National Bank of Slovakia - Working and Discussion Papers, present the original empirical research of the author. The author of the dissertation cites relevant scientific sources from foreign and domestic academic literature, including some older historical sources. One of the advantages of the dissertation is the fact that the author is able to explain didactically a relatively complex issue of yield curve theory and its empirical verification through modern methods of econometric analysis. Adam Kučera's dissertation has

an excellent level and the author proves that he has the prerequisites for further scientific and pedagogical work at the university.

I recommend the dissertation entitled "Topics in Yield Curve Modeling", authored by Mgr. Ing. Adam Kučera, for defense.

| Date: | February 23, 2021 |
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| Opponent's Signature: | Digitally signed by |
| Opponent's Affiliation: | prof. Ing. Martin Mandel CSc. <br> FFU VŠE |