

Report on Bachelor / Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague

Student:	Tereza Fišerová
Advisor:	Prof. Ing. Miloslav Vošvrda CSc.
Title of the thesis:	REGIME-SWITCHING MODELS AND THEIR APPLICATION IN THE FINANCIAL MARKETS

OVERALL ASSESSMENT (provided in English, Czech, or Slovak):

The theoretical part of work provides good overview of chosen topic, which is completely satisfactory for a bachelor thesis. Obviously, no contribution (other than understanding the topic) is expected here, especially while regarding non-trivial quantitative problematic. If anything, the text seems to be too thorough – reviewing also facts and definitions, which are not really necessary – example of which might be introduction of three ways of denoting Markov chains, or definition of their reducibility.

The part where presented theory is applied is considerably smaller than the introduction, which may be considered as only larger flaw of the work. Whereas the methodology and applied econometric part is clearly above standard required for a bachelor thesis, the economic conclusions could be more elaborate. In particular, the text is lacking broader discussion and interpretation of quantitative results – for example author (p.34) comments, that considerable difference has been found between ability of German and other market's ability of getting back to non-volatile state. This is a very interesting finding, which is however not examined at all. Similarly, differences in average length of volatility periods ranging between 9 (CZ) and 17 days (PL) are merely commented.

Also, two more technical notes:

1. standard GARCH models are criticized on ground of evidence, that after turbulent period they have problems in overestimating volatility (they don't switch to normal quickly enough). However, empirical part presents (p40.) difficulties of CZ and PL in switching to normal state – with described volatile period lasting about two years (as seen from daily data). Has the turbulent period been detected properly? Would GARCH really not be able to adapt in same, or better way – as there is obviously no instant switching, but a prolonged period with more or less turbulent returns.
2. The author's conclusion that *use of MRS-GARCH model confirms the existence of two different volatility regimes in the stock markets of the Central European countries* seems to be quite strong – as the presence of two regimes is rather assumed, than truly detected by the model.

Besides several minor inaccuracies in formal notation (which are not really worth discussion), and above mentioned lack of broader discussion of quantitative results, the thesis clearly meets required standards.

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SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
<i>Literature</i> (max. 20 points)	20
<i>Methods</i> (max. 30 points)	30
<i>Contribution</i> (max. 30 points)	15
<i>Manuscript Form</i> (max. 20 points)	20
TOTAL POINTS (max. 100 points)	85
GRADE (1 – 2 – 3 – 4)	1

NAME OF THE REFEREE: Jiří Skuhrovec

DATE OF EVALUATION: 6.6.2011

Referee Signature

