## Report on Bachelor / Master Thesis

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

Student:	Daria Filippova	
Advisor:	Evžen Kočenda	
Title of the thesis:	Effect of foreign exchange interventions on volatility of dollar/yen exchange rate	

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

Please provide your assessment of each of the following four categories. The minimum length of the report is 300 words.

The thesis analyzes the effects of the central bank interventions on the Japanese yen exchange rate. The thesis is ballanced in terms of the subject's introduction, review of the literature, methods, as well as the applied analysis. The empirical work itself is presented with numerours details. The language of the thesis is easy to understand. The subject of the thesis is clearly defined.

#### Contribution

The thesis brings a detailed evidence of how the Japanese monetary authorities employed various intervention techniques to adjust the level of the dollar/yen exchange rate and to reduce its volatility. The analyis is performed over a relatively long span from 1991 till 2011. The thesis is one of the rare cases when very detailed information on the central bank's interventions are used over the regimes when central bank follows different strategies. Contribution of the thesis thus rests not only in the empirical analysis but also in a very detailed description of the data that includes the intervention regimes, classification of the interventions with respect to appreciation/depreciation, target currency, and plenty of illustrative background. In terms of the analytical contribution it is shown that interventions performed by the Japanese Ministry of Finance on behalf of the Bank of Japan reduced volatility of the yen effectively from 1995 until 2002. Frequent interventions of the small scale tended to increase volatility during period 1991-1995, though. Foreign exchange interventions were shown to be more effective when coordinated with the US Fed and interventions conducted after the global financial crisis were shown to be largely ineffective. Description of the interventions' results/effects is presented with a surprising amount of detail. The thesis represents a comprehensive treatment of the subject with a distinct value added.

#### **Methods**

Analysis was performed based on the GARCH-in-mean model to account for the effect of volatility on the echange rate level. Asymmetric effect of interventions was accounted for by modification of the model to exponential GARCH (EGARCH) version. While the EGARCH is not exactly optimal choice it serves well the purpose, though. Division of the intervention regimes is very precise as well as logical and it allows to gauge the fullest impact of the interventions. Often the intervention data are not public. In this case the information on interventions was obtained. However, interventions needed to be properly coded to disniguish several aspects (currency used, appreciation, depreciation etc.). Indeed, coding was done properly. Coordination dummy was sensibly included to account for the effect of the US Fed jointly with Bank of Japan. Overall the methodology approach is fine, well motivated and executed.

#### Literature

The literature is reviewed in a detail and covers all relevant papers. The review actually covers literature related to methods (used to analyzed interventions), it provides a rich narrative on the history of interventions, and the empirical results are complemented by ample evidence from relevant papers to position empirical results in a comparative perspective.

#### Manuscript form

The manuscript conforms to formal requirements for the master thesis. It reads well but contains some typos and improper sentence struture. Introduction is clear and motivates well the researched topic.

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Data are fully described and well chosen, including the researched time span and intervention regimes. Hypotheses are clearly stated. Several abbreviations should be defined earlier in the text in order to prevent some confusions.

In case of the successful defense, I recommend the grade "výborně" (excellent, 1).

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

CATEGORY		POINTS
Contribution	(max. 30 points)	28
Methods	(max. 30 points)	26
Literature	(max. 20 points)	20
Manuscript Form	(max. 20 points)	16
TOTAL POINTS	(max. 100 points)	90
GRADE	(1-2-3-4)	1

NAME OF THE REFEREE: Evžen Kočenda

DATE OF EVALUATION: 25.5.2017

Referee Signature

#### **EXPLANATION OF CATEGORIES AND SCALE:**

**LITERATURE REVIEW:** The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.

Strong Average Weak 20 10 0

**METHODS:** The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.

Strong Average Weak 30 15 0

**CONTRIBUTION:** The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.

Strong Average Weak 30 15 0

**MANUSCRIPT FORM:** The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.

Strong Average Weak 20 10 0

#### Overall grading:

TOTAL POINTS	GRADE		
81 – 100	1	= excellent	= výborně
61 – 80	2	= good	= velmi dobře
41 – 60	3	= satisfactory	= dobře
0 – 40	4	= fail	= nedoporučuji k obhajobě