

**CZECH UNIVERSITY OF LIFE SCIENCES**

Faculty of Economics and Management

*Department of Economics*



**Bachelor Thesis Abstract**

Economic analysis of Czech National Bank interventions in foreign  
exchange market

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## **Abstract**

This bachelor thesis is focused on economic analysis of foreign exchange intervention, that CNB's decided to use it as a monetary policy tool. It assesses this issue mainly from the descriptive and analytical point of view but it is not considered as the only part of this thesis. In order to fully understand this subject, the author approached the issue from different perspectives. For better understanding of the subject, the first chapter is dedicated to the literature review. It maps the theme from the beginning start to development and results of intervention. There will be described and explained the CNB's decisions. The second chapter contains the analytical part, which is divided to several subcapitols parts. First part of the second chapter analyses opinions and criticism of foreign exchange intervention. The second part provides economical analysis, which the author considers as the main part of the analytical chapter. Furthermore, the part thoroughly analyses the development of Czech agri-sector to the future. Further on, it also gives the most recent picture of the prices in the food sector. The last part of the work is dedicated to the relationship between real GDP and the environment. The author deals with the question of how gross domestic product develops after the intervention and how it will affect the environment of the Czech Republic. The result of this work is to prove whether the foreign exchange intervention was the right step, as there is still no clear-cut conclusion about this impact. Also the problem how the Czech economy will develop after the intervention, if taking into account the analysis used in this work.

**Keywords:** Foreign Exchange Intervention, Czech National Bank, Exchange Rate, Czech Crown, Monetary Policy

## **OBJECTIVES**

The main goal of this bachelor thesis is to evaluate the impact of CNB's foreign exchange interventions from November 2013. Foreign exchange interventions are generally introduced in the theoretical part of this thesis, where the term "foreign exchange interventions" is defined by using definitions, what are the impacts, tools, methods or division of foreign exchange interventions.

The wide scope of the topic of this thesis in the practical part is divided in four parts. The first chapter is dedicated to reasons and opinions of CNB's decision and analytical results contain three analysis. The first analysis of the bachelor thesis tries to evaluate the impact of exchange rate upon Czech agri-food sector firstly by studying impact upon trade balance in the sector

and secondly by studying impact upon consumer food prices. The second analysis of the bachelor thesis discusses the impact of intervention upon Czech foreign trade, particularly upon agri-food sector. The third part assesses the impact of intervention upon GDP and environment firstly by estimating impact upon GDP and secondly by evaluating impact upon environment using Kuznets curve.

Another goal of this thesis is to provide readers with the theme who are not familiar with topic. The author tries to describe and explain the reasons, opinions and evaluate the criticism of foreign exchange intervention. Also the bachelor thesis tries to find out if the intervention was successful or not.

## **METHODOLOGY**

Thesis is divided into theoretical and empirical part. The data and information are collected from books, scientific articles and internet sources focused on the topic.

Firstly, in the theoretical part, the author works with the professional literature on the bases of printed and electronic media, which is listed at the end of the thesis. All relevant data are gathered in order to clarify the terms and definitions of foreign exchange intervention. For creating an inductive thesis specific statistics and data has been used and processed from the initial research.

Secondly, the empirical part of this thesis, methodology is focused on the impact of foreign exchange intervention. Mainly with the use of trend analysis that tries to predict the future movement of a specific sector based on the past data. Trend analysis gives traders and economists an idea of future behaviour. The author uses it for prediction of the behaviour and the impact in specific sectors of the Czech economy. The third part of analysis used Gretl tool specifically Arima model. Data were collected and compiled from many different sources in a specific period. The thesis used quantitative data analysis and processing for real prices transformation, second differences of prices, etc. All calculations and data used in analysis are attached in the annex of the thesis.

## **RESULTS AND CONCLUSION**

Firstly the impact of CNB interventions upon agri-food sector will increase in the future. The sum of all chosen agri-food sector categories is negative, which means that Czech agri-food sector is primarily import orientated. It seems that intervention has a positive impact in this sector.

Secondly, conclusion from the conducted study shows that mainly imported vegetable and fruit have become more expensive due to CNB interventions in November 2013. Price of meat shows inconsistency since price of meat was growing in the months of July 2013 to November 2013. It means that prices of meat grew even before CNB interventions.

Most prices of imported goods increased its price even before November 2013. In general, prices of many products in consumer basket also fall for a long time and even before foreign exchange interventions as Zlámalová (2015) and this analysis confirmed.

The main conclusions from the theoretical part are as follows. Firstly, central banks buy or sell their domestic currency to appreciate or depreciate the currency. These actions of intervention inevitably fail over the long-term, but they can be very effective over the short-term. It is the question of time if central bank's decision will be successful or not. Secondly, successful intervention depends on the choice of instruments, timing and markets. Another point is that the survey highlights a number of facts about central bank foreign exchange intervention. The survey results many positive and negative reasons and opinions in this field. Against this background, this paper evaluates the effectiveness of intervention.

In the second part the forecasted net effect of exchange rate differential upon trade balance in the Czech Republic was modelled by using standard trend analysis. Also analyzes of effect on consumers were modelled specifically changes in prices annually and monthly. This analyzes were modelled in order to compare them and see if changes were higher even before foreign exchange intervention in November 2013. This study yielded the following main results. The expected increase in food prices did not occurred, according to the statistics and to the bachelor's analyzes. According to our expectations, mainly imported vegetable and fruit have become more expensive due to CNB interventions. Furthermore, price of meat shows inconsistency. Author agreed with many Czech economists who predicted stability of prices.

The confidence in the Czech National Bank declined very rapidly. On the other hand Czech economy is on the path to a balanced and faster growth. GDP will grow and inflation is non-negative. Progress or result cannot be seen in months, but in years sometimes decades. It is suggested that intervention sometimes works and sometimes it does not.

The main conclusion shows that there is still no clear-cut conclusion about this impact. Intentions and assumptions of the thesis are consistent with the results of the work. The further research could be extended to the examination of this effect.

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