## THE BUCHAREST UNIVERSITY OF ECONOMIC STUDIES

## **Council for Doctoral Studies**

Finance Doctoral School

# MONETARY – FISCAL – STRUCTURAL POLICY MIX

Vid Alin-Ioan

Academic advisor: Professor PhD Ionut Dumitru

#### **SUMMARY**

The thesis aims to investigate the interaction and coordination among the three fundamental components of the macroeconomic policy mix: monetary policy, fiscal policy, and structural policies. In a context marked by economic volatility, successive crises, and global transitions (digital, green, institutional), analyzing an integrated policy framework becomes essential for macroeconomic stability and sustainable development, especially in Central and Eastern European (CEE) economies.

The study adopts a multidimensional approach, combining econometric methods with machine learning techniques. The relationship between monetary and fiscal policy is examined for CEE countries (Bulgaria, Czech Republic, Hungary, Poland, and Romania) using specific indicators and a VAR model with Markov-Switching regimes. This framework allows the identification of distinct economic regimes and the assessment of the policy mix's impact on inflation, budget deficit, and economic growth. Additionally, the influence of institutional quality on economic performance is analyzed using panel regressions.

The thesis also includes an innovative component through the application of machine learning algorithms to detect and anticipate economic crises in Romania, thereby enhancing policymakers' early warning and response capacity. Finally, the effects of structural reforms on GDP and employment in CEE countries are assessed using the local projection method.

The results support the hypothesis that effective coordination of macroeconomic policies, backed by strong institutions and coherent reforms, significantly contributes to stability and sustainable growth. The thesis offers a valuable theoretical and applied contribution to the literature by integrating multiple methodological perspectives and focusing on the regional specifics of Central and Eastern Europe.

**Keywords:** monetary policy, fiscal policy, macroeconomic policy mix, Central and Eastern Europe, public institutions, structural reforms, machine learning.

### TABLE OF CONTENTS

INTRODUCTION	1
1. MONETARY POLICY, FISCAL POLICY, STRUCTURAL POLICIES – DEFINIT	
KEY INSIGHTS	4
1.1 BRIEF HISTORY, DEFINITIONS AND CONCEPTS	4
1.2. THE ROLE OF POLICIES WITHIN THE MACROECONOMIC MIX	8
1.3. COORDINATION OF MACROECONOMIC POLICIES: PROS AND CONS	10
1.4. INSTITUTIONAL FRAMEWORK AND IMPLICATIONS FOR ROMANIA	12
2. THE RELATIONSHIP BETWEEN MONETARY AND FISCAL POLICY IN CEN	TRAL AND
EASTERN EUROPE	15
2.1. OVERVIEW OF MAIN FISCAL AND MONETARY POLICY INDICATOR	RS IN CEE
COUNTRIES	15
2.1.1. Bulgaria	15
2.1.2. Czech Republic	17
2.1.3. Hungary	20
2.1.4. Poland	22
2.1.5. Romania	25
2.2. LITERATURE REVIEW AND METHODOLOGY	27
2.3. ESTIMATION RESULTS	29
3. MONETARY-FISCAL POLICY MIX EVOLUTION AND IMPLICATIONS	35
3.1. LITERATURE REVIEW	35
3.2. METHODOLOGY	41
3.3. DATA DESCRIPTION	43
3.4. ESTIMATION RESULTS	43
4 PUBLIC INSTITUTIONS QUALITY AND ECONOMIC GROWTH	49

	4.1. LITERATURE REVIEW	49
	4.2. METHODOLOGY	51
	4.3. DATA DESCROIPTION AND TRENDS IN PUBLIC INSTITUTIONAL QUALITY A	AND
	ECONOMIC PERFORMANCE INDICATORS IN CEE	52
	4.4. ECONOMETRIC MODEL ESTIMATION RESULTS	59
5.	MACHINE LEARNING-BASED DETECTION OF ECONOMIC CRISES IN ROMANIA	62
	5.1 LITERATURE REVIEW	62
	5.2. METHODOLOGY	66
	5.3. DATA DESCRIPTION	74
	5.4. ESTIMATION RESULTS	77
6.	THE EFFECTS OF STRUCTURAL REFORMS ON ECONOMIC GROWTH A	AND
E	MPLOYMENT IN CEE COUNTRIES	90
	6.1.LITERATURE REVIEW	90
	6.2. METHDOLOGY AND DATA DESCRIPTION	93
	6.3. ESTIMATION RESULTS	95
7.	CONCLUSIONS	99
R	EFERENCES	. 103
A	NNEXES	. 111
	Annex I	. 111
	Annov II	11/