THESES FOR DOCTORAL (PHD) DISSERTATION

ORSOLYA PÓCSIK

GÖDÖLLŐ
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HUNGARIAN UNIVERSITY OF AGRICULTURAL AND LIFE SCIENCES

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THE POTENTIAL IMPACT OF EURO ADOPTION IN HUNGARY

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1. BACKGROUND OF THE WORK, OBJECTIVES

The thesis is a comprehensive examination of the macroeconomic issues related to the introduction of the euro in Hungary, the determination of who would benefit from the introduction of the euro and who would benefit from it in Hungary. The purpose of the research was to examine attitude od euro introduction, the macroeconomic data with exchange rate analysis. Economic convergence is and was still on the agenda, which is (was) vital to the presentation of the theoretical possibility related to joining the eurozone and the introduction of the euro in Hungary. Several crises have taken place. The regulatory system of the Eurozone seems to be getting renewed. In the past two decades, several important economic policy decisions have been announced in Hungary regarding the introduction of the euro.

The research part of the dissertation was based on the use of foreign and Hungarian databases, from which the author interpreted and presented solution options for (or improving) macroeconomic indicators. It was important to keep in mind the convergence process and the measures that could be taken into account in connection with the improvement of the analyzed indicators.

The thesis covered the process by which the eurozone was created in 1999 with 11 member states and the euro. In the first three years, it only functioned as account money, and it has only been possible to pay in cash since 2002.

The thesis showed that confidence indices play a key role in understanding and forecasting economic processes and attitudes tests. These indices not only reflect consumer and business behavior, but also provide economic policy makers with valuable information for managing economic cycles and stabilizing the economy.

The thesis highlighted the challenges related to the measurement and application of trust indices and attitudes tests, such as methodological differences and the effects of external factors, but also highlighted the opportunities that the indices provide in terms of economic forecasting and the optimization of economic policy measures.

Household confidence indices remain essential tools in economic analysis, contributing to the maintenance of economic stability and growth in the Eurozone and the European Union.

The doctoral thesis evaluated the possibilities of Hungary's introduction to the euro. Hungary's next opportunity is to enter the ERM II system. The introduction of the euro has many effects: the perception of the country and becoming a part of the economic community, etc. Most of the residents of the countries that had already joined supported the introduction of the new currency because it made trade between the countries easier. Although the Polish złoty is less volatile than the forint, both currencies react to even the smallest fluctuations in the world economy. In the region, the Czech crown is considered a stable currency, its economic stability and the trust of its investors are unshakable. Confidence in the Hungarian currency is important.

1.1. Problem statement

The purpose of this dissertation is to examine the macroeconomic issues surrounding the introduction of the euro in Hungary and the country's accession to the euro area, and to provide an attitudinal analysis of the euro adoption.

The paper was written over the last two years, as Hungary and the euro area were attempting to recover from the global crisis and to rebound from the shocks of the crisis. As a series of economic crises followed and Hungary chose a different path, Croatia signed up to the ERM II exchange rate regime as a crisis management solution.

1.2 Hypotheses:

H1: As regards analyses of euro adoption in Hungary, the attitude function is altogether positive.

H2: The most significant consequence of the introduction of the euro is increased confidence in the economy, to which macroeconomic actors are sensitive.

H3: Among the Central and Eastern European currencies, the forint is more sensitive (more volatile) to changes in the external environment than the Czech koruna and the Polish złoty.

H4: Those working among economics lectures and researchers and academics show particularly strong commintment to the euro.

H5: CEOs show a strong commitment towards the introduction of the euro.

2. MATERIAL AND METHOD

Primary research

The complete illustrative flowchart of the primary research and the steps and methods involved are shown in the Table 1 below.

Table 1: Process and methodology of the primary research

<table>
<tr><td rowspan="3">Processing of literature, literary research</td><td rowspan="3"></td><td>Exploratory qualitative research</td></tr>
<tr><td rowspan="2">Setting up focus groups</td></tr>
<tr><td rowspan="8">Content analysis</td></tr>
<tr><td rowspan="7">Hypothesis generation, Questionnaire design – quantitative research</td><td rowspan="7">Setting up focus groups</td></tr>
<tr><td>Pilot study</td></tr>
<tr><td>Questionnaire survey</td></tr>
<tr><td>Conduct in-depth interviews,</td></tr>
<tr><td>Conduct in-depth interviews,</td></tr>
<tr><td>Results and conclusions</td></tr>
<tr><td>Formalizing the dissertation and making corrections based on the supervisors' instructions</td><td rowspan="2"></td></tr>
<tr><td>ReadyPhD-dissertation</td></tr>
</table>

Source: own editing (2024)

The qualitative method was used at the beginning of the research phase, with the secondary information being used in an additive way, for information gathering. The SWOT analysis of the euro adoption in Hungary was a good basis for a larger sample survey in the field of economics education which, at the same time, is a quantitative method. My premier research used mathematical-statistical methods. I used the IBM SPSS software package, version 27.1.0.1.

In the research topic of euro introduction, it is important to assess conviction and value. The values of academics are learned and are constantly changing throughout their careers. Attitude surveys provide insights into how respondents feel about the issue. Attitudes must have a subject, i.e. a focal point. The subject can be an abstract concept, such as the introduction of the euro.

The attitude can be either accepting or rejecting. Its degree can be questioned. Confidence in the euro is also part of the survey. The research also includes an adjustment or adaptation function, a value expression function and even a self-protection function (see interview texts). The use of everyday currency can be seen as a personal experience.

The introduction of the euro is based on a need. In the eurozone countries, we have no other way to pay. I consider experts and debating academics/writers as reference persons. Experts and academics and researchers influence public opinion and public opinion influences academics and researchers.

1. **Attitude strength:** a very strong positive or negative attitude is more likely to be reflected in behaviour. Very strong positive attitudes are more likely to be strongly positive.
2. **The existence of other attitudes:** some respondents might be in favour of adopting the euro but are afraid to say so. The attitude towards adoption is an inner fear or anxiety.
3. **Responsiveness to attitudes:** the attitude of the respondent is (in vain) very positive about the introduction, the political will is not there.
4. **Situational factors in the social context:** university lecturers who teach in economics may have a different perspective on the issue of euro adoption.

Measurement of attitude components: The cognitive components of attitudes can be gleaned from the text of the in-depth interviews.
I have interpreted affective components with regard to respondents, and endeavoured to gauge their responses using questions beginning with "do you believe, do you adhere to...". The survey has also measured the affective component of the research subject.
Most methods of attitude measurement are based on the assumption that attitudes can be determined by measuring the opinions or beliefs of individuals with regard to an attitude object. This method can also be considered a direct survey.

1. **Attitude axes:** An extremely common element is that attitudes include some piece of knowledge, opinion, view, thought or even superstition concerning the attitude object. Lastly, the third layer of attitudes represents a kind of behaviour. All in all, attitude has 3 axes (Forgács, 2017).

2. **Change in attitude:** Persuasion skill is of central importance in modern society. Success in business, law, media, politics, education, healthcare, fine arts and all the sciences require familiarity with the art of influencing. Entrepreneurs must be capable of selling their products. Politicians of convincing voters of their competence. (Forgács, 2017).

The Yale Program: Researchers have formulated a number of laws—determining whether persuasion proves successful—, but it is undeniably hard to generalise. In practice, the characteristics and appropriateness of criteria known to be relevant (intended marketing message and social context) and of the relevant actors (the specific target group (recipients), the selected opinion leader (influencer)) are re-examined (Forgács, 2017). Researchers have formulated a number of laws—determining whether persuasion proves successful—, but it is undeniably hard to generalise. In practice, the characteristics and appropriateness of criteria known to be relevant (intended marketing message and social context) and of the relevant actors (the specific target group (recipients), the selected opinion leader (influencer)) are re-examined (Forgács, 2017).
Representatives of the Yale Program have examined the persuasion process with regard to the four factors below (Forgács, 2017).

Secunder Research:

In this section, I present the findings deducted from the information collected. The findings pertain to the introduction of the euro in Hungary. The goal of the macroeconomic analysis was to chart the introduction of the euro in Hungary, and its potential impacts. The main focus was reviewing the public sector from a macroeconomic perspective.

Confidence indices:
Business confidence index = 0.5714 * industry confidence index + 0.0714 * construction industry confidence index + 0.0714 * commercial confidence index + 0.2858 * service provider confidence index. The weights applied are based on surveys conducted by the European Commission, GKI (2024).

The **consumer confidence index** represents the arithmetic average of balance indicators calculated from responses to questions concerning the financial situation of households over the previous 12 months, their financial outlook for the next 12 months, expectations for the development of the country's economic status, and prospects for purchasing durable consumer goods, GKI (2024).

GKI conjuncture index = (business confidence index * 2 + consumer confidence index) / 3.

I have also conducted an online survey with CEOs. I have forwarded the questionnaire on the introduction of the euro in Hungary to the company email addresses of 1,400 companies.

Macroeconomic analysis with statistical methods:

1. Covariance analysis
2. Correlation analysis
3. Variance analysis
4. Linear regression

Examination of the real effective exchange rate

According to453 Eurobarometer and 548. Eurobarometer:

The European Commission, Directorate-General for Economic and Financial Affairs (DG ECFIN), Ipsos European Public Affairs created interviews with a representative sample of EU citizens, who were at age of 15 and over, in each of the six EU Member States that have not yet joined the euro zone and that have no specific opt-out.
Between 10 and 11 April 2017 7006 interview were held and 15 and 29 May 2024, 6 093 interviews were held on the landline telepones and mobile phones.
The report showed at the most recent year-on-year changes at national level and national.

3. RESULTS AND THEIR DISCUSSION

3.1.Result of Primary reserch

The questionnaire survey was repeated between January and March 2024 with the application of the previous database. Corvinus University of Budapest was taken as the sample. The questionnaire was sent only to those faculty members who were teaching at departments related to economics (for the purposes of the survey professors and lecturers at the political science and sociology departments were also included).

The results of the 2022 survey were the following. Results in terms of gender: the majority of the respondents are male (67%), with a correspondingly lower proportion of female respondents (33%) in the sample. In terms of age group, the 43–52 (34.2%) and the 53–65 (20.4%) age groups are over-represented in the sample. This sample can be considered a normal distribution in view of the proportion of the two age groups within the active population. The majority of the respondents (over 70%) live in the capital. The largest proportion of respondents have tertiary education and a PhD degree (71%). Based on their self-assessment, 62.6% of the respondents work in the area of economics, 27% in other fields of education and 10.4% in agriculture. 81.7% of the respondents do not work in finance. In terms of sector of employment, it can be concluded that the majority of the respondents have a PhD degree and are specialised in various areas of economics; nevertheless, most of them do not teach finance.

The results of the 2024 survey can be described with the following data. Results in terms of gender: the majority of the respondents are male (69%), with a correspondingly lower proportion of female respondents (31%) in the sample. In terms of age group, the age groups of 43–52 (33.5%–32%) and 53–65 (28.4%–34.1%) are over-represented in the sample. This sample can be considered a normal distribution in view of the proportion of the two age groups within the active population. A significant proportion of the respondents live in the capital or in a major city. The largest proportion of the respondents have tertiary education and a PhD degree (44%–33%). In terms of sector of employment, it can be concluded that the majority of the respondents have a PhD degree and are specialised in various areas of economics; nevertheless, as in the previous survey, most of them do not teach finance. (The proportions of the survey sample are illustrated in the tables below.)

Questions on meeting the Maastricht criteria: One of the goals of my research was to find out what proportion of the respondents thought the ability of meeting the Maastricht criteria important. Moreover, I wanted to understand – and get to know the opinion of university professors and highly educated people on – whether it was realistic to get the macroeconomic data right first and then introduce the euro. This section summarises the theoretical frameworks found in the professional literature. Scope of questions on the fulfilment of the Maastricht criteria: The questions referred to the Maastricht criteria (which are the centrally imposed preconditions for joining the euro area). I have ignored them in the analysis of the data for now. Based on the questionnaire processing, I use the SPSS software package to select the questions that were found to be correlated by the system. (Only the questions listed below remained during the processing. Later, these questions will also be included in an in-depth interview, which I would like to verify.) During the processing I tried to confirm the statements made in the questionnaire by in-depth interview responses.

Questions on the adoption of the euro: Would it be worthwhile or beneficial for Hungary to become part of the European Monetary Union? In 2022, the vast majority of the respondents (78.3%) stated that it would be worthwhile for Hungary to be part of the EMU, while 21.7% of the respondents were convinced otherwise.
In 2024, I applied an interval scale in several cases for examining the attitudes towards the euro adoption to get a more objective picture of the attitudes of university professors towards the euro. On the Likert scale, the attitude of 'Absolutely Worthwhile' (5) received the highest percentage value. (You can see in Figure 1)

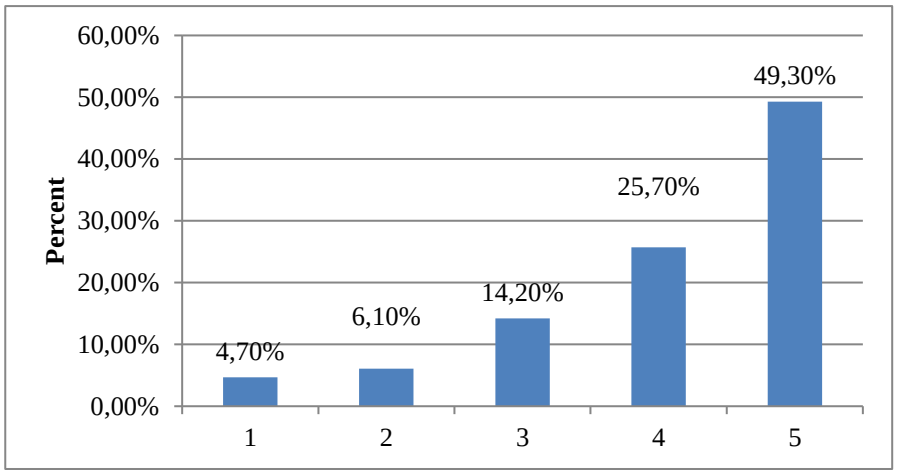


Figure 1: Attitudes of academics towards the introduction of the euro in Hungary in 2024

Source: own editing based on the results of the questionnaire survey (2024)

Remark: (1) I am not committed at all. ... (5) I am fully committed to the introduction of the euro.

Do you see the euro adoption as a national issue? (2022) – (2024) Are you committed to the euro adoption? (2022) The next two questions ask about the attitudes and viewpoints of the respondents. More than half of the respondents (56.8%) believe that the adoption of the euro should be viewed as a national issue, while a smaller half of the respondents (43.2%) reported that they did not consider the existence of the euro a common issue in Hungary. The second, related question is about commitment. More often than not (66.1%), respondents answered 'yes'. 33.9% answered 'no'. There is a correlation between the two questions. The second, related question is about commitment. Most respondents are committed to the adoption of the euro (49.3%).

Owing to the press and the media and to several sub-disciplines, there is a growing awareness of the Maastricht criteria. In a span of two years, the rate of ignorance/non-recognition decreased by almost 10%. (The in-depth exploration of this knowledge is outside of the scope of this paper.)

In both survey years, respondents expected inflation rates to exceed the three best performers by more than 1.5% (end of 2023, the Netherlands, Belgium, Italy). Owing to high inflation, there were disruptions in the euro area in 2022.

In both years of the survey, the respondents reported that the annual budget deficit exceeded 3% of GDP. Due to the accelerating crises

(crisis spiral), Hungary was unable to meet this condition year after year.

Most respondents were unable to answer the following question, or did not understand the question – the latter cannot be ruled out. – They chose the second most frequent answer– if the overrun rate were 60%, public debt would be 120%. In the case of this question, I have ignored the evaluation of the answers.
The results show that academics believe that the government will deliver on the current budget bill, with a large majority (82.4%) confident in 2024. Respondents believe politicians. In both survey years, the majority of the respondents were confident that the currency would not be pegged in the next 3 years – i.e. the forint exchange rate will continue to fluctuate in a floating exchange rate regime –, that the MNB would have a say in exchange rate decisions, and that the institution of the Monetary Council would remain in place.

The respondents 'Disagreed' with the statement in both survey years. In their opinion, there is very little chance for the criterion to be met. (End of 2021: Slovenia, Ireland, Malta) (end of 2023: Denmark, Croatia, Slovenia) Hungary was unable to reach the interest rates prevailing in the countries specified in either survey year.
It is a matter of academic debate, but in the area of economics university professors have sufficient knowledge to decide the problem of the optimal currency area.
In 2022, the majority of the respondents (53%) stated that the European Union was not an optimal currency area. They agreed with the question asked to a medium degree in 2024 – they received the median score on the Likert scale (3). The 'Neither Agree nor Disagree' attitude response was extremely high.

3.2.Attitude object examination

My chosen attitude object is an attitude survey of the introduction of the euro (2. Table).

2.Table: The euro adoption attitude object

Attitude characteristics	Attitude object
Attitude name	Introduction of the euro
Impact on our environment	yes
Learned and constant	yes, yes
Can be used to express emotion	positive / negative

Source: Author's own research and compilation (2024)

The inquiry focused on the general population and the business sector. Respondents had a sensitive response to the first two questions. One concerned the price stability criterium, the other the forint/euro exchange rate. The findings are based on the viewpoints expressed in the note section. Confidence in the euro is inextricably linked to contentment with the European Union. Confidence in the forint has been eroding with time. Confidence in the euro is also connected to uncertainty concerning the economy. This uncertainty is further increased by information on budgetary deficits, inflation, and a growing public debt. Such information is relevant to the Maastricht criteria.

Attitude is a critical factor in everyday economics and economic policy. In order to increase trust and determine the behaviour of respondents it is important to engage in forecasting, tracking and influence assessment. Attitude surveys allow us to predict political changes and economic processes.
Currency has values that are difficult to calculate, subjective, and associated with personal attitudes. Some subjective values are measurable. I have titled such processes **currency sensitivity surveys.**

My primary research is focused on two narrow groups of societal stakeholders. They represent individual aspects not independent of sectors. I sought target groups with knowledge relevant to the introduction of the euro.

When the questionnaire surveys were conducted, both target groups ranked high inflation the foremost among the Maastricht criteria (3. Table).

3.Table: Household / consumer ranking process

Attitude object	The theme, the aspect of which occupies educators, researchers, academic experts	Order of preference / ranking based on narrative assessment	Order of preference / ranking based on Likert scale assessment
Introduction of the euro	Introduction of the euro (Maastricht factors, particularly inflation)	1st	1st

Remark: 1= most important, Likert scale (5.) I completely agree with the statement

Source: Author's own research and compilation (2024)

The household/consumer attitude survey examines the findings of the 4. Table. Raising the issue of the introduction of the euro revealed a positive attitude among respondents. Attitude intensity is strongly linked to knowledge and emotions. Attitude stability appears strong and stable on the Likert scale. The euro adoption attitude object is relevant and important. Previous studies on the introduction of the euro have not engaged with the "Maastricht attitude component". The attitude towards the introduction of the euro is indicative of a persistent conviction. Respondents have firm beliefs. Attitude consistency is not contradictory. The Maastricht attitude component however does show contradictions. The attitude function of the introduction of the euro is strongly positive.

4.Table: Three attitude axes relevant to the introduction of the euro as an attitude subject

Attitude axis:	Reception process	Reference level	Attitude subject	Index	Response rate
Cognitive attitude	Reception: Observation	Knowledge, opinion, view, belief	Knowledge of the euro adoption process and the Maastricht criteria	How much do the targeted persons remember the message?	100% response
	Understanding			How much of the reasoning are the targeted persons able to remember?	100% response
	Acceptance		Used euro before	How much do the targeted persons accept the message as true?	100% response
Affective attitude	Retention	Likes / believes in / appreciates it	euro	For how long do the targeted persons remember the message?	100% response
			Introduction of the euro	For how long do the targeted persons remember the message?	100% response
Conative attitude	Behaviour	behaviour	Able to answer specific questions	How much does the behaviour of the targeted persons change?	Knowledge is expanded, able to interpret economic news, capable of voting in a potential referendum

Source: Author's own research and compilation (2024)

5.Table: Results of the household sector attitude survey

Attitude object	introduction of the euro
Attitude direction or quality	positive
Attitude intensity	knowledge/emotion
Attitude stability	established via Likert scale – intensive = stronger = more stable
Attitude relevance	important
Attitude persistence	belief, conviction
Attitude consistency	not contradictory
Attitude function	based on attitude quality and intensity: very positive

Source: Author's own research and compilation (2024)

The euro adoption attitude object is developing in a positive direction among respondents. Attitude intensity is linked to everyday knowledge and emotions. Attitude stability appears strong and stable on the Likert scale. The euro adoption attitude object is relevant and important.
The attitude towards the introduction of the euro is indicative of a persistent conviction. Respondents have firm beliefs. Primarily on why they have not been asked to respond. Attitude consistency is not contradictory. The "Maastricht attitude component" however does show contradictions. The attitude function of the introduction of the euro is positive (Table 5).

3.1.3. Processing via Yale Program

The persuasion process has been examined with regard to the four factors below:

I. the influenced party

The interest of the influenced party: Economic processes, and the introduction of the euro

Unmet needs of the influenced party: expressing their opinion

Unique perception: Respondents have their own opinions which they want to share

Emotions, knowledge, habits concerning the attitude object: positive, as relates to the introduction of the euro. Understands and can answer questions regarding euro adoption criteria

Attitude object relevance: Important economic issue

II. the influencing party (source):

Credibility of the influencing party: If the questionnaire is completed, the respondent is considered credible

Expert knowledge of the influencing party: Professional expert knowledge

Social power of the influencing party: low

Relationship with the influenced party: indirect

Profile of the influenced party: low (PhD student)

Manipulation skills of the influencing party: mediocre

III. communication location

1. **Problem:** The stabilization of the economy, the fulfillment of the Maastricht criteria, and the introduction of the euro are the subjects of heated debate in scientific and academic circles. Forint is losing its value against the euro. I have attempted to find a solution to this problem

2. **Justification of the need:** Do you agree with the introduction of the euro? Are you familiar with the Maastricht criteria? Do you agree with the Maastricht criteria?
3. **Agrees with the introduction of the euro:** Is aware of the Maastricht criteria? Agrees with the Maastricht criteria?
4. **Made tangible:** Academics can influence other actors in the national economy through studies.
5. **Concrete action is taken:** The euro is part of the educational process. Through spontaneous euroization, more and more people are using it.

A two-sided message includes a complex attitude (concerning Maastricht criteria).

A two-sided message also calls attention to viewpoints that argue against the desired attitude. According to research, two-sided messages are more effective in the following situations:

- University lecturers, researchers and academic experts have higher educational attainments.
- University lecturers, researchers and academic experts are familiar with the subject matter of the euro introduction.
- A solution to the issue may bring up complex, hidden attitudes.
- Influenced university lecturers, researchers and academic experts originally did not think favourably of compliance with certain Maastricht criteria, but have a positive attitude towards the introduction of the euro.
- University lecturers, researchers and academic experts receive contradictory messages from daily news and current statements, reasoning by politicians.

3.1.4. The peripheral route to persuasion

6. Table: Based on the depth and speed of information processing

Information processing method	Speed	Depth	Recommended processing technique
Heuristic	quick	shallow, but suitable for analysis (which is why Maastricht criteria are necessary)	peripheral

Source: Author's own research and compilation (2024)

The answers met the heuristic information criterion (see Table 6):

Heuristic information processing is typically used when the receiving party is in one of the following mental states:
• many people accept the message,
• university lecturers, researchers and academic experts agree on the importance and researchability of the message,
• many people thank you for giving them the opportunity to express their opinions,
• the introduction of the euro and the fulfillment of the related Maastricht criteria are on the agenda.

The university lecturers, researchers and academic experts /receiving parties react without an in-depth analysis of the information, saving time and energy. They determine the truthfulness of the message not by way of in-depth analysis, but by evaluating other, peripheral criteria:

- many parties accept the message,
- experts agree with the message,
- the message is often heard repeated.

contextual factors: When a questionnaire is completed, noise and business are not measurable factors.
The rate of ownership and identification between the influencing and the influenced parties is unknown. The euro adoption attitude object is internalised in the course of the interview. The strong positive view is developed among respondents. 10% of respondents expressed gratitude for the opportunity to share their opinions.
The euro adoption attitude object is equivalent to the euro attitude object.

3.1.5.Other researches

Attitude survey on the introduction of the euro among CEOs via questionnaire

My research also covered another macroeconomic unit. The business sphere is one of the economic units analysed in macroeconomics. The business sphere produces products and services. CEOs are important actors of the corporate sector. After reviewing the literature, I have engaged with few business attitudes, such as the attitudes towards the introduction of the euro.

Findings of the questionnaire analysis: I have sent out the questionnaire in the February–March 2025 period; I have utilised

some parts of the prior questionnaire. As part of my research, I have contacted the managers of 1,367 companies. This was based on the "Cégkatalógus" (Company Catalogue) database available online. The questions have been already determined during the two previous rounds of questioning. During this round, I have forwarded an abbreviated list of questions.

The two groups of respondents share one characteristic. There are many CEOs found among the educators; researchers active in higher education in the field of economics.

CEOs expect that the introduction of the euro will produce lower interest rates. The forint/euro exchange rate is a source of constant exchange loss in their accounts. (There is an accounting template for this in the bibliography section.) They also expect that joining the eurozone will result in a more stable economic environment and less public borrowing. Enhanced economic integration and a common currency may increase the purchasing power retention of the forint, thereby achieving more stable consumer prices, which in turn impacts the household/civilian sector.

Heuristic information processing is typically used when the receiving party is in one of the following mental states:

- the introduction of the euro and the Maastricht criteria attitude objects are important, but not the most important issues,
- there is no need among CEOs to engage in deep analysis of information from periodical literature on the introduction of the euro and on Maastricht criteria,
- lacks time or mental capacity to evaluate the truthfulness of information,
- CEOs are less than familiar with the subject,
- CEOs are rarely consulted, even though they have opinions on the subject,
- CEOs have low awareness levels as they might be distracted by economic, information technology, communication processes,
- the stress and anxiety levels of CEOs are higher, as they are concerned about liquidity and profit.

For my second target group, I have chosen the business sector.

The positive attitude of respondents towards the introduction of the euro is a result of the following factors:

1. Dedication to a more stable means of exchange.

2. Less attachment to the forint.

3. Confidence towards the euro.

4. Impact of exchange loss when purchasing foreign currencies. Respondents are affected by currency exchange rate risks, which serves as grounds for uncertainty.

5. Hungarians are concerned with reducing the high levels of inflation.

5. Knowledge of the subject. Knowledge of the Maastricht criteria.

6. Hopes for the introduction of the new currency. Joining the eurozone offers hope, as it would result in stability for the Hungarian economy.

In the course of my data collection and analyses, I have paid a high degree of attention to ensuring that the findings are statistically valuable, and can prove or disprove my hypothesis.
The respondents have confirmed the findings of the secondary research, and the hypothesis was supported by both the economic analysis and the primary research. The attitude analysis has proved successful. Attitude analyses regularly omit the Maastricht criteria. The introduction of the euro is incomprehensible without compliance with these criteria. Thereupon I am introducing a new research methodology and concept, the **"Maastricht criteria attitude component"**, which has not been included in surveys in the past.

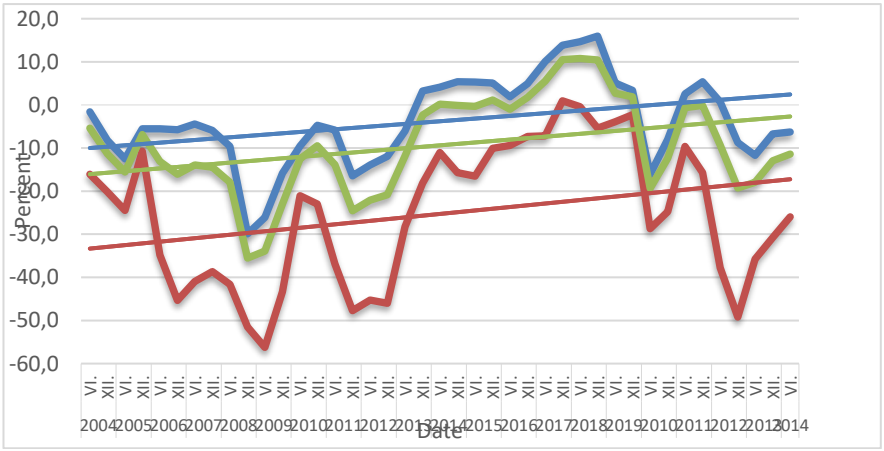
The business sector attitude survey findings are similar to the results of the previous survey.

3.2. Secondary research

3.2.1. Macroeconomic analysis

To catch up with the average of the eurozone and satisfy the Maastricht criteria, the Hungarian economy must be in a sustainable and stable shape. I have approached the issue from an analyst's perspective and started my research with the examination of the current state of the Hungarian economy.

3.2.2. Confidence indices



2. Figure: GKI confidence and business cycle index for Hungary

Notes: Thick blue line: Business Confidence Index, Thick green line: GKI conjuncture index, Thick red line: Consumer Confidence Index, Thin blue, green, red line: Linear Trend line

Source: Own compilation based on GKI data (2024)

Confidence indices measure changes in public confidence. Confidence indices are useful because they can be used to make predictions; furthermore, they are connected to the current macroeconomic situation.

Country-by-country attitudes are fuzzy. The business confidence indices and consumer confidence indices of the three examined countries are completely synchronised. The conjuncture indices are linked to trust in the European Union, which thereby has an indirect impact on the introduction of the euro.

A conjuncture index measures confidence in the economy (Figure 2.). Consumer and business indices show the low points of a curve, similarly to 2008, and the 2020–2022 post-COVID-19 period.

Consumer confidence was higher even when the COVID-19 epidemic was raging. In January 2019, business and consumer expectations dropped below even the low values of the previous year. The 2020 GKI conjuncture index displayed signs of pessimism; however, in May 2020, most of the sub-indices started to grow sharply. The disease control measures declared by the government increased confidence in the economy. In the industrial sector, pessimism intensified. Opinions of exportation were the most negative. The GKI conjuncture index has shown increases in April, May and June 2021. In June 2021, the conjuncture index fell. In June 2021, the consumer confidence index and GKI conjuncture index have both shown growth. September 2021 turned to stagnation. Business expectations remained optimistic. After September 2021, consumer expectations declined. The consumer confidence index began to rise again starting in the second half of 2022. Starting from September 2023, Hungarian citizens began to feel that their own economic situation and saving potential, as well as the state of the economy itself were degrading.

GNI (Gross National Income) indicates the economic performance and prosperity of a country, which impacts trust in European Union institutions. According to the values of the chart, performance in the 2004–2023 period was inconsistent. The COVID-19 pandemic and its subsequent effects made the setback much more visible. Hungarian GNI is unevenly distributed, which suggests social and economic disparities. This highlighted more significant social changes that could result in complex economic policy measures. Performance fluctuations may lead to unorthodox economic policy measures and conservative investment readiness. The quality of life of the Hungarian population is not outstanding in terms of the European average.

3.2.3. Examination of the Maastricht criteria

Development of inflation

The 3rd figure below illustrates the development of the inflation rate in Hungary between 2004 and 2023.

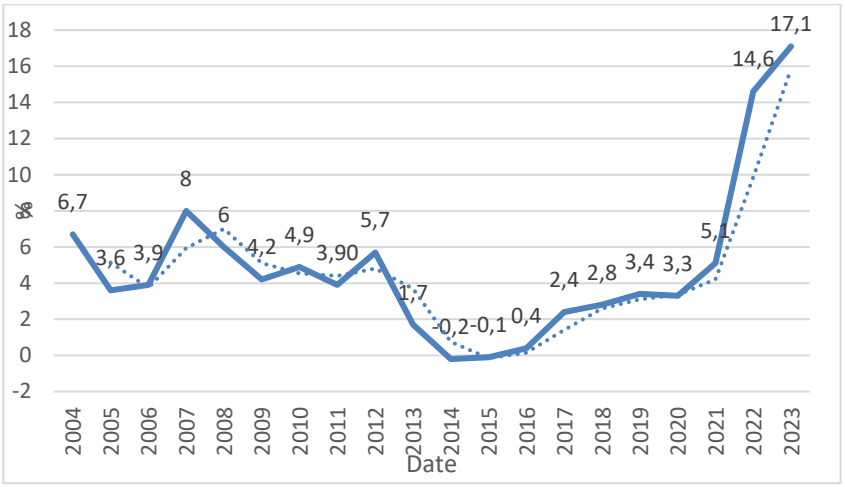


Figure 3: Evolution of the inflation rate (%) in Hungary between 2004-2023

Source: Own source (2024)

Inflation in the V4 region has developed as follows, against general inflation expectations. There was an apparent trend in the world economy: inflation has affected services more, which in turn hindered disinflation. Monetary policy conditions did not enforce austerity. External (imported) inflationary pressure, global resource pricing, unutilised sustainable capacity, regulated prices, nominal effective exchange rate increase, and a reduction in indirect taxes have all impacted the economic environment.

Development of long-term interest rates

The Figure 4 below shows the development of long-term interest rates in Hungary between 1990 and 2023.

Figure 4.: Development of long-term interest rates (%) in Hungary between 2004-2023

Notes: blue line: Hungary, Red line: Poland, Green line: Czechia

Source: Own editing (2024)

Development of Public debt

The development of gross public debt is illustrated in Furure 5.

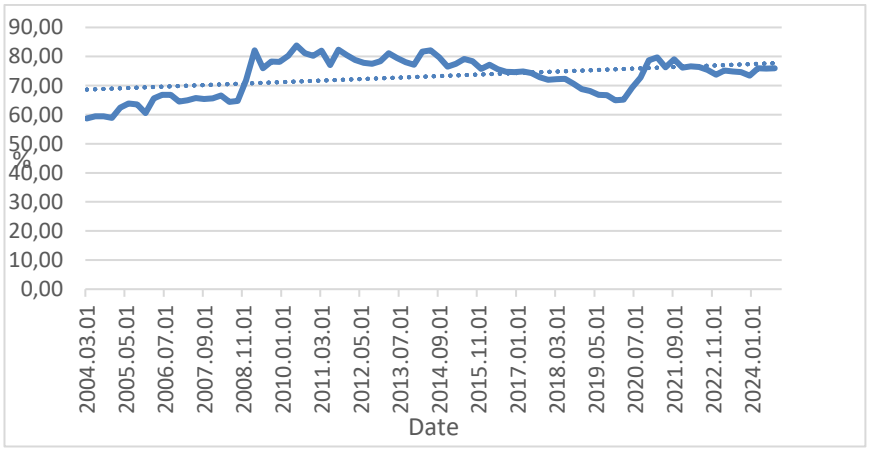


Figure 5.: Development of gross public debt as a percentage of GDP for the period 2004-2024

Source: MNB, EUROSTAT alapján, 2024b saját szerkesztés (2024)

Development of Budget deficit
The budget deficit data is included in Table 7.

7.Table: Budget deficit as a percentage of GDP

Év	Hungary	Czechia	Poland
2004	-4,5%	-2,2%	-4,8%
2005	-6,1%	-3,1%	-3,9%
2006	-9,2%	-2,2%	-3,5%
2007	-5%	-0,7%	-1,9%
2008	-3,7%	-2%	-3,6%
2009	-4,7%	-5,5%	-7,3%
2010	-4,4%	-4,2%	-7,4%
2011	-5,2%	-2,7%	-4,9%
2012	-2,3%	-3,9%	-3,7%
2013	-2,5%	-1,2%	-4,2%
2014	-2,8%	-2,1%	-3%
2015	-2%	-0,7%	-2,6%
2016	-1,8%	0,7%	-2,4%
2017	-2,5%	1,5%	-1,5%
2018	-2,3%	0,9%	-0,2%
2019	-2%	0,3%	-0,7%
2020	-7,5%	-5,6%	-6,9%
2021	-7,1%	-5%	-1,7%
2022	-6,2%	-3,1%	-3,4%
2023	-6,7%	-3,8%	-5,3%

Forrás: KSH, Countryconomics, EKB, 2024a adatai alapján saját szerkesztés (2024)

The exchange rate of the euro (ERM-II), or the analysis of the relationship between the nominal exchange rates of some Central and Eastern European currencies using statistical tools

The exchange rate of the euro in Hungary: Based on the time series data of the EUR/HUF exchange rate, I prepared the descriptive statistics, which could be used to evaluate the most basic data. The item number of the sample is 5018, and there was data for that many days. In the last twenty years, the value of the euro was between HUF 229.11 and HUF 432.94, which meant that the range was HUF 203.83. (Figure 6.).

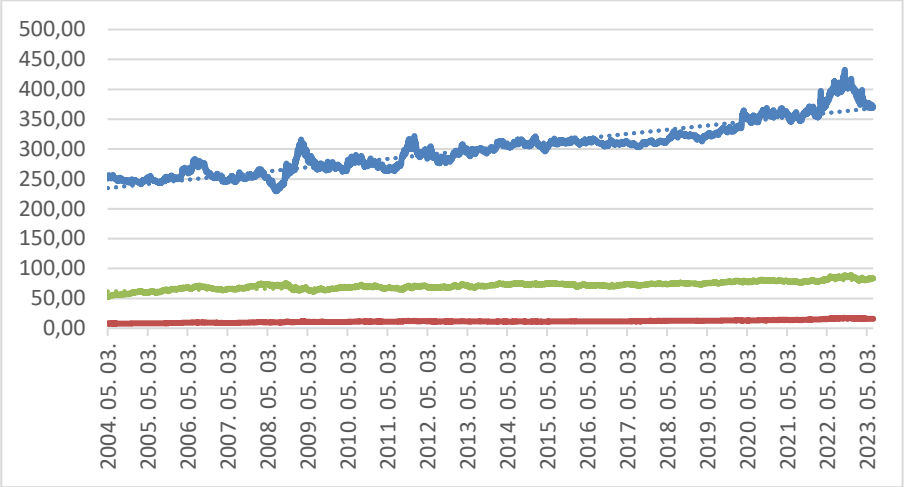


Figure 6.: Changes in the EUR/HUF; CZK/ HUF; PLB/HUF exchange rate over the past 20 years

Remark: Blue line: EUR/HUF; Red line: CZK/HUF; Green line: PLN/HUF, blue dotted line: Linear trend line EUR/HUF, red dotted line: linear trend line CZK/ HUF, green dotted line: linear trend line PLN/HUF

Source: Own editing, based on MNB exchange rates (2024)

Correlation analysis: In the case of the EUR/HUF and EUR/PLN exchange rates, the coefficient became positive, 0.74109, but in my opinion, it is not so close to 1 that we can talk about a close relationship.

Variance analysis: Even from the descriptive statistical data, it was apparent that different values were obtained for the variance, which was confirmed by the analysis of variance. It was 1901.81 for the EUR/HUF exchange rate, 3.043 for EUR/CZK, and 0.086 for EUR/PLN. The value of F was 220783.4, which was much higher than the critical value of F, so I rejected the null hypothesis, that is, the expected value of the exchange rates was not the same. This was also confirmed by the fact that the p-value was 0.

Regression statistics

Table 7.: Linear regression result

r value	0,857
r-squered value	0,735
Corrected r-squered value	0,735
Standard error	22,448
Observations/ Data	4999

Source: MNB data, own editing (2024)

Table 8.: Analysis of variance 1.

	df	SS	MS	F	F szignif
Regression	2	6986686,12	3493343,0	6932,410	0
Remainder	4996	2517557,55	503,915		
Summary	4998	9504243,68			

Source*: MNB data, own editing (2024)*

In the course of the **trend analysis**, Hungary's consumer confidence index was logged via Excel, and of the various function types examined, the linear function proved most pertinent. Its formula is y=0.3343x-16.396, its R-squared value is 0.1274. The trend function is in line with the PLN/HUF trend changes described. The obtained result matches the result of the regression statistics (Figure 7-8).

In the course of the **trend analysis**, Hungary's consumer confidence index was logged via Excel, and of the various function types examined, the linear function proved most pertinent. Its formula is y=0.3343x-16.396, its R-squared value is 0.1274. The trend function is in line with the CZK/HUF trend changes described.
The obtained result matches the result of the regression statistics (Figure 7-8).

Factors determining Hungarian forint exchange rate trends: In the years following 2004, Hungarian forint remained stable against the euro. One reason for this was stronger investor confidence due to increasing European integration. Short-term exchange rate fluctuation was continuous. The euro–forint exchange rate was almost identical in 2004 and 2008. Hungary then experienced significant currency depreciation. In 2009, as result of the 2008 global financial crisis, the value of forint against the euro has increased by 12%. Hungarian economic policy objectives shifted, the Monetary Council began to hold council meetings on the devaluation of the forint. European integration has kickstarted labour market mobility. Many people left to seek employment abroad, sending their salaries back to Hungary,

which increased the flow of euro cash and bank deposits into the country. The euro–forint exchange rate seemed to be getting lower. This stable trend of slow depreciation was reversed by the COVID-19 pandemic. The crisis made investors less confident in smaller, more vulnerable markets. The exchange rate of the forint was stabilised by monetary policy tightening. The trend broke down in 2023, when the forint increased in value. Investor confidence grew. The high base rate and the attractive yields further increased willingness to invest. This had a negative effect on exporters.
Hungarian monetary austerity was much stricter than in Poland and Czechia. The forint is consistently lower in value than the other currencies of the V4 region. It is significantly weaker than the złoty, and underperforms compared to the Czech crown. Czech national debt is lower, investor confidence is higher. These factors favour the Czech currency against the euro.

The currency exchange rate is determined by structural factors, economic structure, pricing processes and open foreign currency positions in various sectors. The volatility of the forint is due to a shifting foreign policy, eurozone trends, low confidence in the Hungarian economy and low credit spread. When considering Hungary, it is important to review interconnections between currency exchange rate and sustainable economic development, as the currency exchange rate is a determining factor for economic performance. In Hungary, exchange rate depreciation is generating inflation. The forint–euro exchange rate is displaying signs of volatility and has an impact on the developments of the forint exchange equalisation reserve. The more significant issue affecting the forint is that it can lose its value against the euro (and the dollar) multiple times in a weak.
Proposed solutions: establishing and maintaining economic stability, reducing inflation and the budgetary deficit. Public debt is increasing, and financing the public debt may involve interest rate increases. This process must be resolved.

3.2.4. Real effective exchange rate analysis for Hungary

During the analysis of the data for the period between 2004 and 2024, I also examined the differences between the performance of the Hungarian economy and the EU27 countries (on a 2020 basis), i.e. the convergence. This positive trend lasted until the mid-2000s, when economic convergence improved significantly, and Hungary came close to the EU average. Based on the results of my analysis,

Hungary's economic performance has gradually caught up with the EU27 average over the past decades (Figure 7.).

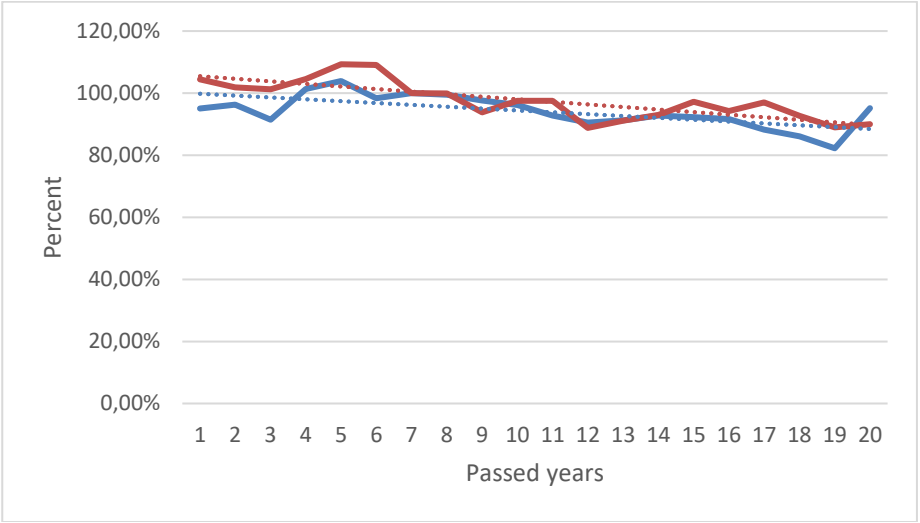


Figure 7.: Real effective exchange rate of Hungary and EU27 between 2004 and 2024

Notes: Blue line: Hungary (%), Red line: EU27, 2020 (%),Blue dot: Linear, Hungary, (%)?, Red dot: Linear (EU27, 2020) (%)

Source: own editing (2024)

In the course of the **trend analysis**, Hungary's trend analysis was logged via Excel, and of the various function types examined, the linear function proved most pertinent. Its formula is y=-0,006x+1,0041, its R-squared value is értéke 0,444. The trend function is in line with the Hungarian trend changes 44,4% described 44,4%.

In the course of the **trend analysis**, Hungary's trend analysis was logged via Excel, and of the various function types examined, the linear function proved most pertinent. Its formula is y=0,0083x+1,0628, its R-squared value is értéke 0,6233. The trend function is in line with the Hungarian trend changes 62,33% described.

3.2.5. Evaluation by credit rating agencies

CRA evaluations are important to investors and show the hazards and risks associated with each bond. Investors are in possession of capital and therefore assess interest rates and margins generated in a given country at face value. Hungarian credit ratings constitute opinions

about the country. CRAs examine not only inflation, but budgetary deficit, both being Maastricht criteria.

Investors remain confident, but Hungary is not the most attractive subject. Austria, Belgium, Finland, France, the Netherlands, Ireland, Luxembourg, Germany, Italy, Portugal and Spain have joined earlier or are founding members of the European Union. The most well-known CRAs are Fitch, Moody's and Standard & Poor's. All three institutions rate the countries above as highly recommend (High Grade).
The exception is Italy, where only short-term investments are recommended. Italy is assigned a low-to-mid level investment grade. Spain's situation is better, as both Fitch and S&P put it in the highly recommended category. Moody's, considered one of the sternest institutions, assigns the country a medium level credit risk, i.e. it is deemed medium risk.
Those not in this group are assigned increasingly worse, at best recommended status by CRAs. Slovakia, Slovenia, Croatia have gained better ratings after introducing the euro.

3.2.6. Household survey using Eurobarometer

According to the 548th edition of the Flash Eurobarometer (2024), the following answers were given by respondents based on the aggregated data:

Detailed findings concerning each country:

- Those rate of those saying that the euro should be introduced as soon as possible was the highest among Hungarian respondents (39%).
- In Poland, 18% shared this opinion. There, 48% said that the introduction of the euro should be postponed as much as possible, or that they never want the euro to be their official currency.
- Among Czech respondents, 47% stated that the introduction of the euro should be postponed as much as possible, or that they never want the euro to be their official currency.
- Compared to 2023 data, the rate of respondents stating that the introduction of the euro should be postponed as much as possible, or that they never want the euro to be their official currency has decreased both in Czechia (47%, down 7 percentage points) and Hungary (17%, down 5 percentage points).

- In Poland, the rate of respondents stating that the introduction of the euro should be postponed as much as possible, or that they never want the euro to be their official currency has increased (48%, up 9 percentage points).

Attitudes concerning the introduction of the euro:

- Respondents agree that the introduction of the euro had positive impact on the countries that have already introduced the currency. Czechia was the only country where more respondents claimed that the introduction of the euro had negative effects.
- About one in five respondents said that their country was ready to introduce the euro.
- Everywhere—except in Hungary—, the general opinion was that introducing the euro would result in negative consequences for the population of the respondents' countries.
- In Hungary, there was a higher rate of respondents stating that introducing the euro would have mostly positive consequences for them personally.
- The general attitude towards the introduction of the euro is positive among Hungarians.
- A higher rate of Hungarian respondents who view the euro's impact on Member States in the eurozone as positive believe that Hungary is ready for the introduction of the euro, and that introducing the currency will have positive consequences for the nation and for them personally.
- A higher rate of Hungarian respondents supporting the introduction of the euro believed that its consequences are positive.
- In Czechia, attitudes towards the introduction of the euro are negative.

3.2.7.Expectations related to the introduction of the euro

In all countries, the majority of respondents agreed that they personally would be able to adapt if the national currency were replaced by the euro.

In my next analysis (Table 9.), I compare the governmental objectives of V4 countries not in the eurozone. Czechia should be ready to comply with Maastricht criteria at any time, but the government is biding its time. The Czechs have plans, but no willingness. The Polish government stands against introducing the euro. The willingness to

introduce the currency among various members of society is decreasing year-by-year. Among Hungarians, while the government has been against the introduction of the euro since 2010, the number of supporters among the citizens is growing each year.

Table 9: Comparing governmental intentions, societal will and euroisation among countries outside the eurozone

Countries outside the eurozone	Governmental intention	Societal will	Business willingness = euroisation
Czechia	A study was prepared on joining the ERM-II system. A euro "delegate" was appointed. Government is biding its time. Not supported by the central bank= negative attitude.	Czech society is against the introduction of the euro= negative attitude.	Czech companies are transitioning to the euro. Half of corporate loans are denominated in euro. Gradual progress towards the euro = partly positive, partly negative attitude is experienced.
Poland	Stands against introducing the euro= negative attitude.	Support for the introduction of the euro is low= negative attitude.	Polish companies are transitioning to the euro. Half of corporate loans are denominated in euro. Gradual progress towards the euro= partly positive, partly negative attitude is experienced
Hungary	The political will is lacking. The president of the central bank and the prime minister, and previously the president of the central bank and the minister of finance have discussed the issue = negative attitude.	Support for the introduction of the euro is high= positive attitude.	Taxes can be paid in euro. The economy has largely transitioned to the euro. 81% of the population uses the euro= positive attitude.

Notes: Pink= negative attitude, green= positive attitude, Purple=partly positive, partly negative attitude

Source: Author's own compilation (2024)

3.2.8. Euro adoption model

The model is a synthesis derived from my secondary research (10. Table). The introduction of the euro is a subject connected to economic, political and social views and interests. Members of society think in stereotypes, to which they associate conditions of trust. If general society has a high level of confidence, they have more trust towards economic or political processes, institutions and persons.

Trust is a fundamental condition in the euro adoption model I propose. Conditions of trust for the euro adoption model may be defined at the social or personal level.

10. Table: Euro adoption model

Economic conditions	**Political conditions**	**Confidence-related conditions**	**Theoretic conditions**	**Other conditions**
Establishing real convergence	1.Compliance with internal EU standards 2.Sovereign political will within the country (governmental decision) 3.Presence of a stable national economy 4.Acceptance of European Central Bank and monetary union mechanisms	Social confidence-related conditions: 1.Confidence of foreign investors 2.Confidence, assessment of international credit rating agencies 3.Confidence of members of society Personal confidence-related conditions: •Positive attitudes •Generational attitude (typical of SMEs)	Compliance with the conditions of the optimal currency area theoretical framework	1.Avoiding indebtedness 2.Rate of spontaneous euroisation and increase in money circulation velocity among the population
Nominal convergence				

Source: Author's own model (2024)

4. CONCLUSIONS AND RECOMMENDATIONS

Due to the broad outlook and complexity of the doctoral thesis, it is multi-layered research, in which the subject of a comprehensive investigation was the possible introduction of the euro in Hungary. The logical model created as a result of the research can be used later in connection with similar research. During the research, I wanted to draw attention to the importance of the topic. To explore the problem area of the introduction of the euro, I conducted a questionnaire survey, during which I collected the opinions of teachers and researchers in the field of economics training, on how they see the issue of the introduction of the euro in Hungary. The duration of the research spanned two years. I looked for correlations between the questions with a correlation test. During the primary research, I also examined the attitude of university lecturers related to the topic. **It has been proven that a significant number of university lecturers are positive about the introduction of the euro.**

The survey conducted with CEOs showed a similarly positive attitude towards the euro adoption attitude object.

Economic life is determined by social trust, which is also a measure of social and financial capital. Confidence in a country's currency can make or break a society. Overall, public confidence indices and attitudes are key indicators for understanding and forecasting economic processes. Economic practice is dictated by societal confidence, which serves as a benchmark for social and financial capital. Confidence in a country’s currency may lead to the rise or fall of a society. All in all, public confidence indices and attitudes are main indicators necessary to understand and predict economic processes. GNI (Gross National Income), which I have examined above, is generally considered one of the most reliable indicators. **My most important conclusion is that the result of the entry can be justified mostly by social-psychological effects. The loss of confidence that occurs when we are uncertain or procrastinate is the most serious factor, both economically and socially.**

Several economic events experienced in the eurozone and the European Union, such as the 2008 financial crisis and the Covid-19 pandemic have clearly illustrated how confidence indices

respond to the changing economic environment and how they are able to predict the development of economic performance**.**

Confidence in nation states must be reinforced at the household level, in the business sector and within the education system as well. Through the concept of "currency sensitivity", I have explained that currency has values that are difficult to calculate, subjective, and associated with personal attitudes.

In the course of my inquiries, I have examined Hungary's euro adoption attitude function, and have found it to be (increasingly) positive. My survey has also covered the private sector. I have examined two sectors where the persons questioned had personal knowledge and competences regarding the use of the euro. I narrowed the household sector to educators and researchers, as well as academic experts working in higher education in the field of economics. In the course of the research, it became evident that applying the Maastricht criteria as research questions was useful. The criteria have not been included in past research, but I considered them to fill a gap in existing literature. I have named this the **"Maastricht criteria attitude component".**

Hungarian attitudes toward the euro and euro adoption are strongly positive. I conducted various attitude surveys, with the introduction of the euro as an attitude object. I interpreted the persuasion process through the cognitive persuasion model; including how, during the survey process, the individual internalises the introduction of the euro as an issue. The confidence – influence – attitude triangle can only be interpreted if all components are considered.

In the processing of the literature, I had examined the possibilities and economic policy models of the euro introduction, in which the introduction of other countries given as models, while I was reading and evaluating domestic and international literature sources and available empirical researches. **This is also reflected in my own euro adoption model, where the condition of trust is a key factor at both the individual and societal level.**

I have conducted studies on the Maastricht criteria. Inflation is what causes the most damage to the economy. And it impacts the most criteria as well.

In the following phase of my research, I examined Eastern European exchange rates. In the course of my analysis, I have considered only the foreign exchange rates of Central and Eastern European countries. I did not consider Slovakia, as the country already joined the eurozone earlier. (I found positive co-movement between EUR/HUF and EUR/PLN.

I continued my research by examining real effective exchange rates. Eurozone exchange rates have shown stability over the past three years.

Real-effective exchange rates showed a positive relationship with the passage of time, economic processes and macroeconomic changes. I also examined Hungary's economic performance using another method, the real-effective exchange rate analysis. In the case of Hungary, the linear trend line showed an upward trend, which indicated that the country's economic performance improved during the examined period. I recommend repeating the annual real effective exchange rate examination.

Due to the influence of Balassa-Samuelson, the złoty, the crown and the forint experienced a real appreciation. Since the classic study by Darvas (1999), it is clear that the exchange rate is unpredictable in flexible exchange rate systems. Hungary, Poland and Repulic of Czeh use a flexible exchange rate system.

Given that several of the criteria have a positive impact on inflation, the fulfilment of **the Maastricht criteria discussed contributes to price stability and purchasing power stability in the euro area.** Low and stable inflation facilitates long-term economic planning and reduces economic uncertainty and investor risks. Exchange rate stability and convergence of long-term interest rates contribute to the stability of financial markets. Exchange rate stability and convergent long-term interest rates reduce exchange rate and interest rate fluctuations, what improves financial stability and reduces risks to the financial system.

Recent economic shocks have cast accession to the eurozone in a new light for countries wishing to join. Since there is no fixed deadline for adoption, it has become not a priority, but rather one of many tasks to be accomplished after crisis management is done. Hungary must follow a convergence path similar to that of Croatia

after declaring its intention to introduce the euro. Another important conclusion is that **with Croatia's accession, six countries, including Hungary, are now on the periphery. Among the many reasons for staying outside is the declining real convergence within the eurozone.** Spontaneous euroisation may occur in connection with the introduction of the euro, as was observed in the case of Croatia. This is the expected course of the economic policy.

Spontaneous euroization started in the Hungarian economy. More and more micro- and medium-sized enterprises count in euros. Company managers consider the weak forint exchange rate a serious risk. This statement is certainly true for importing companies. Spontaneous euroization is taking place in Hungary, the Czech Republic, and Poland. Companies can pay taxes in euros.

The timing of the introduction of the euro is a key factor for economic stability. Accession can only be achieved with a strict budget, political will, predictable wage and price policy, and regulation of banking processes. Public debt in proportion to GDP can be achieved by increasing nominal economic growth. Economic growth, the budget deficit and price increases are interdependent factors. A strict fiscal policy also reduces aggregate demand, economic growth and price increases. The budget deficit must be kept at a low level. In terms of price stability, the Hungarian economy must have stronger indicators. A strict fiscal policy also reduces aggregate demand, economic growth and price increases**. The budget deficit must be kept at a low level. In terms of price stability, the Hungarian economy must have stronger indicators.**

In the past decade, the low-interest rate environment and moderate level of inflation supported investments and economic growth, but the COVID-19 pandemic and its global economic impacts posed new challenges. In the future, the green and digital transition and steps taken toward sustainable economic growth will affect inflation and the development of long-term interest rates. More flexible fiscal rules, firmer structural reforms, the integration of the social dimension, and the creation of more effective financial stabilisation mechanisms are needed to make the eurozone more resilient and sustainable. The future of the Economic and Monetary Union depends on whether we are able to learn from

past experience and adequately adapt to future challenges. Only this can we ensure that eurozone Member States achieve long-term economic stability and sustainable development.

How to proceed? – the question arises as the conclusion of the dissertation. I also plan to carry out a series of investigations related to Euroization among the corporate stakeholders in the multinational corporate circle, with which I can involve new stakeholders in the investigation and increase the possibility of objectivity on the subject.

Other possible research directions:
In the case of well-founded assumptions and conclusions based on the examination of hypotheses, I consider it important to consider the following practical methods, as well as the suggestions related to the continuation of the research topic.

J_1 The ideological background of the euro introduction issue must be taken into account.
J_2 Introduction to the euro and the issue of the green economy, may show a new direction of research. The green transition and digital transformation may increase inflation due to initial investment costs but stabilize it in the long run through energy efficiency and productivity gains. The development of inflation depends on the global economic situation and the success of internal economic policy measures.
J_3 Examining joining the eurozone would speed up the processes related to the average and integration of the eurozone.
J_4 The evolution of long-term interest rates can be influenced by global financial markets and domestic economic policy. Focusing on sustainable economic development and green investments can reduce risk premiums and stabilize interest rates in the long term, which can have a positive effect on investments and economic growth.

5. NEW SCIENTIFIC RESULTS

On the basis of the essay, I have reached the following new scientific findings.

1. While reviewing the literature, the authors argue in favour of the benefits. The macroeconomic analysis showed improvement and convergence, based on which initiating accession to the eurozone could become a realistic prospect. Relying on my own research, I proved that the concepts of trust and attitude are interconnected. As regards **the issue of euro adoption in Hungary, the attitude function is altogether positive.** Hungarian attitudes toward the euro and euro adoption are strongly positive. **Through the concept of "currency sensitivity", I have explained that** currency has values that are difficult to calculate, subjective, and associated with personal attitudes.

2. Based on the content analysis I conducted, the exchange rate studies, and the respondents surveyed, it is demonstrable that eurozone membership results in increased confidence. Not joining means falling behind economically. My research into public and corporate confidence (conducted among university educators, researchers, and CEOs) also point to this prospect. **The most significant consequence of the introduction of the euro is increased confidence in the economy, which also manifests at lower economic levels. The lives of macroeconomic actors are sensitive to the currency. This is also reflected in my own euro adoption model**, where the condition of trust is a key factor at both the individual and societal level.

3. Relying on exchange rate analyses, I presented an objective picture of the conversion processes preceding the adoption of the ERM-II exchange rate system. Through statistical analysis, **I proved that the forint reacts more sensitively than the Czech crown or the Polish złoty.** Research using statistical software has confirmed that the forint is more vulnerable and reacts more swiftly to global economic events; its exchange rate fluctuates more easily, and it loses value faster. I carried out all major statistical analyses on foreign exchange rates. As regards the questionnaire survey, the vulnerability and replaceability of the forint were also emphasised.

4. In countries that have not yet met the Maastricht criteria, convergence has slowed. I examined the introduction of the euro from the perspectives of both the household and SME sectors. My findings include the fact that the Hungarian population's most significant problems are caused by exchange rate fluctuations and inflation.

5. The primary research conducted in the household sector, specifically among university educators and researchers, confirmed the results of my primary research. **The commitment to the euro among educators and researchers working in higher education in the field of economics is quite strong . Attitude studies on euro adoption tend to omit the "Maastricht criteria attitude component" of euro adoption.** Fulfilling or not fulfilling the Maastricht criteria would also be an important factor. I have included it in the context of my research as some parts are measurable on a scale, and a few of the criteria directly affect the everyday lives of members of society, making it an important area of interest for them.

6. **CEOs show a strong commitment** towards the introduction of the euro. I have introduced the concept of the **"Maastricht criteria attitude component".** I have utilised it in the course of attitude analyses.

My qualitative and quantitative studies have reached substantive findings in the fields of economic policy and the regional sciences.

6. PUBLICATIONS

1. BOD, P. Á.; **PÓCSIK, O.;** NESZMÉLYI, GY. I. (2021): *Political and Policy Dilemmas of Euro Adoption in CEE Countries: What Next When Crisis Hits?*, EUROPEAN POLICY ANALYSIS 7: 2 pp. 470-485. Paper: first published, 16 p.,

2. BOD, P. Á.; **PÓCSIK**, **O.;** NESZMÉLYI, GY. I. (2021): *Varieties of euro adoption strategies in Visegrad countries before the pandemic crisis*, ACTA OECONOMICA 71: 4 pp. 519-550., 32 p.,

Scientific journal article - in a Hungarian specialized journal

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Further announcements

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