WORKING PAPER

ANALYSIS OF FACTORS AFFECTING EURIBOR MOVEMENTS

Aleksandar Melović

Available at www.nbs.rs

Department for FX Matters and Foreign Credit Relations

NATIONAL BANK OF SERBIA

Belgrade, 12 Kralja Petra Street

Telephone: (+381 11) 3027 100

Belgrade, 17 Nemanjina Street

Telephone: (+381 11) 333 8000

www.nbs.rs

Analysis of factors affecting Euribor movements

Aleksandar Melović

Abstract: The Euribor reference interest rate is one of the most important benchmarks in the euro money market. It is used to determine the interest rates on a wide range of financial products and, in the Republic of Serbia, also in setting the interest rates on the majority of housing loans. Therefore, understanding the factors that influence the level of the Euribor rate is of considerable importance to all stakeholders whose decisions are affected by this reference rate. In economic theory and practice, the monetary policy of the European Central Bank is considered to have the greatest influence on its movements, more specifically, changes in the three key interest rates set by this financial institution. Application of the Autoregressive Distributed Lag model established a statistically significant effect of the European Central Bank's reference rates on the movements of three-, six- and twelve-month Euribor rates. In the short term, a 1 pp increase in the reference rate leads to an increase of 0.83, 0.47 and as much as 1.2 pp in the three-, six- and twelve-month Euribor rates, respectively. A statistically significant effect of inflation was also identified, although its magnitude was smaller, with a regression coefficient of 0.0469 in the current period. Among other factors, market expectations regarding the European Central Bank's future policy stance should also be highlighted, as well as the adverse impact of geopolitical tensions on the economy and, consequently, on financial markets and Euribor movements.

Key words: Euribor, European Central Bank, benchmark interest rates, monetary policy, interest rate determinants
[JEL Code]: C22, E31, E43, E52

Non-technical summary

Few phenomena in economics have as broad and pervasive an impact across numerous economic activities and on a wide range of stakeholders in the economic sphere as the benchmark interest rate for the euro money market – Euribor. Designed to provide a representative measure of developments in the euro money market and to serve as a benchmark for determining interest rates on a wide range of financial products, such as housing loans, interest rate swaps, interest rate futures, and savings accounts, the Euribor rate has been in existence for nearly three decades.

Euribor is the average interest rate at which panel banks with a significant role in the euro money market lend to one another on an unsecured basis. It is calculated for maturities of one week and one, three, six, and twelve months.

Throughout its relatively long history, the Euribor rate has served as a market indicator of changes in the ECB's monetary policy, as well as of the changes brought about by the 2008 global financial crisis and the crises that have emerged in recent years, primarily as a result of the armed conflicts in Ukraine and the Middle East.

With the aim of improving the forecasting of Euribor movements, this paper examines the factors that have influenced the level of this benchmark rate. Among the numerous factors identified in the literature, the ECB's monetary policy is of particular importance. Through its three key interest rates, the ECB seeks to maintain price stability and keep inflation at 2% over the medium term. By setting its key interest rates, the ECB establishes the upper and lower bounds for market interest rates, thereby defining a corridor within which market rates, including Euribor, can fluctuate. Therefore, monitoring the ECB's monetary policy is crucial for understanding the dynamics of Euribor rates. Using the ARDL model, the analysis finds a statistically significant effect of the ECB's key interest rates on Euribor movements. Specifically, a 1 pp increase in the key interest rate in the short run leads to increases in the three-month, six-month, and twelve-month Euribor rates of 0.83, 0.47, and as much as 1.2 pp, respectively. In a hypothetical example, this means that if the ECB were to raise the deposit facility rate from 2% to 3%, the three-month Euribor would increase in the short run from, for example, 1% to 1.83%.

In addition to monetary policy, Euribor rates are influenced by inflation, geopolitical tensions, and market expectations regarding the future course of the ECB monetary policy. Consequently, market participants may sometimes adjust Euribor rates in line with their expectations even before the ECB changes its key interest rates.

Contents

1 Introduction

This paper examines the determinants of movements in the Euribor interest rate. As Euribor serves as a key benchmark for euro-denominated borrowing and, consequently, influences the pricing of financial products, identifying the factors that drive its movements and quantifying their respective effects is important for economic agents in making informed decisions. The paper analyses these factors, drawing on the European Central Bank (ECB) data on Euribor rates, the ECB's key interest rates – the deposit facility rate (DFR), main refinancing operations rate (MRO), and marginal lending facility rate (MLF) – as well as inflation data, with the aim of assessing the effects of monetary policy and inflation on Euribor dynamics. Furthermore, to facilitate a better understanding of the subject under consideration, the first part of the paper reviews the fundamental concepts related to the Euribor interest rate, with a particular focus on its key characteristics, types, and significance for the banking sector and the broader financial market. A part of the paper provides an overview of the methodology used to calculate the rate. Based on historical data, a brief review of the movements in different Euribor rates from their inception in January 1999 through July 2026 is presented, providing an initial insight into the dynamics of these rates over the entire period of their existence. The second part of the paper provides an overview of the factors affecting Euribor identified in economic theory and practice, together with the expected impact of each factor on the Euribor rate. In analysing how these factors affect the Euribor level, an Autoregressive Distributed Lag (ARDL) model is applied, using data on the six-month Euribor rate. The results indicate a joint effect of the ECB's key interest rates and inflation on the Euribor level, accounting for the rate dynamics over the entire period under review. The analysis finds that the monetary policy of the ECB is the most significant determinant of Euribor movements. Specifically, a 1 pp increase in the ECB's key interest rate is associated with a 0.303 pp increase in Euribor, while a 1 pp increase in inflation is associated with a 0.047 pp increase in Euribor. The concluding section discusses the factors that determined the level of Euribor rates over the historical period and that continue to shape their movements today, with the aim of contributing to a better understanding of the expected path of Euribor rates in the future.

2 Euribor – Key characteristics and significance

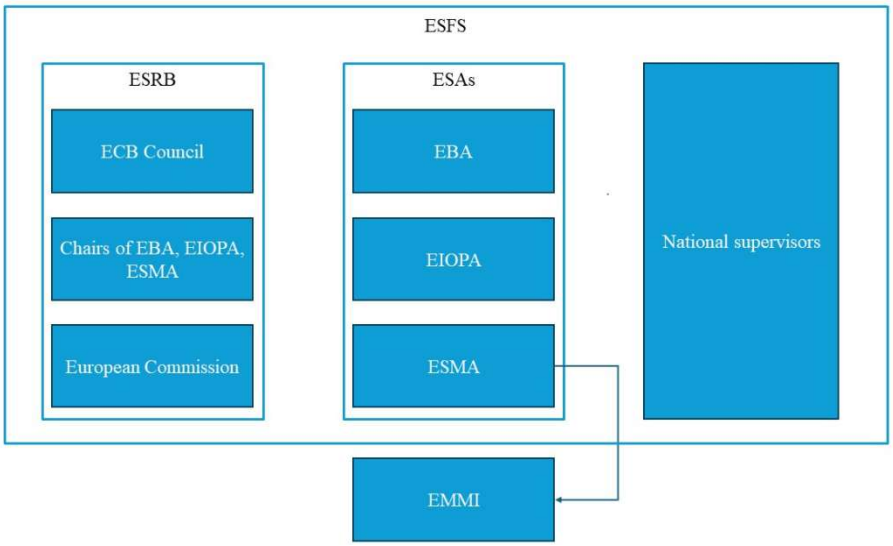
2.1 Key characteristics

Euribor is a benchmark interest rate for a wide range of financial products. The name Euribor is an abbreviation of the original English term Euro Interbank Offered Rate, referring to the rate at which a predefined group of banks lend funds to one another in euros. Euribor represents the average interest rate on such transactions, which involve short maturities and are conducted on an unsecured basis, i.e. without collateral. Unlike other benchmark rates in the market, such as €STR (Euro Short-Term Rate), which reflects overnight borrowing and is generally considered a risk-free rate, Euribor incorporates a risk component.

To gain a better understanding of the key characteristics of Euribor, it is useful to first examine the institutional framework within which it is calculated. In the euro money market, the European Money Markets Institute (EMMI) was established in 1999, coinciding with the introduction of the euro. EMMI is a non-profit organisation responsible for the development and administration of benchmark rates, the best known of which is Euribor. In addition to Euribor, the Institute develops Efterm, a forward-looking measure of the cost of money, and previously developed and calculated the overnight interbank interest rate Eonia. The calculation and publication of Eonia were discontinued at the beginning of 2022, following its replacement by €STR, which is calculated and published by the ECB. The Institute operates in accordance with the European Union's Benchmark Regulation (BMR), while its activities are supervised by the European Securities and Markets Authority (ESMA).

ESMA is part of the European System of Financial Supervision (ESFS), where, together with other key financial and regulatory institutions, it works to ensure the effective implementation of rules governing the financial sector, with the aim of safeguarding financial stability, strengthening confidence in the financial system as a whole, and ensuring an appropriate level of protection for users of financial services. The ESFS also includes the Governing Council of the ECB, which is of particular relevance to the subsequent analysis of the Euribor rate.

Figure II.1 **Structure of the European System of Financial Supervision (ESFS)**



Source: Author's own elaboration based on ESMA (n.d.).

Euribor is calculated for five different maturities, resulting in the following Euribor rates.

- EURIBOR 1W (one-week maturity),
- EURIBOR 1M (one-month maturity),
- EURIBOR 3M (three-month maturity),
- EURIBOR 6M (six-month maturity),
- EURIBOR 12M (twelve-month maturity).

In previous years, as many as fifteen Euribor rates with different maturities were published. However, following November 2013, this number was reduced to five rates in order to address concerns regarding the reliability of the calculated rates and to focus on those rates most widely used in practice.

2.2 Significance of Euribor

The significance of Euribor stems from the fact that it is regarded as "the most important benchmark interest rate for all types of financial products, such as interest rate swaps, interest rate futures, savings accounts, and mortgage loans" (Lleshaj & Kripa, 2021, p. 1332). This is also the case in the banking sector of the Republic of Serbia, where, for euro-indexed housing loans, Euribor is incorporated, either directly or indirectly, into the calculation of the interest rate charged to the borrower. It is therefore important for stakeholders to monitor movements in Euribor rates in order to make informed decisions. It is equally important that all requirements governing the calculation of Euribor are duly complied with, so as to ensure that the rate is as accurate as possible and provides a representative reflection of actual movements in the euro money market. The methodology used to calculate Euribor is discussed in greater detail in the following chapter.

In general, interbank interest rates serve as indicators of the cost of financing and provide a concise and clear picture of the overall condition of the financial system, as they reflect the level of confidence and degree of liquidity among participants in the financial market (Gómez Yubero, Ollero García-Agulló, & Palomero Aguilar, 2026).

It is also worth highlighting the significance of Euribor in the context of the ECB's monetary policy. As will be discussed in greater detail later in the paper, the ECB conducts monetary policy by setting three key interest rates. Through these rates, the ECB seeks to steer money market conditions and achieve its primary objective of maintaining price stability. These rates establish upper and lower bounds for other market interest rates, within which, as will be demonstrated, Euribor also fluctuates. Consequently, Euribor and other interbank interest rates play an important role in the monetary policy transmission mechanism, as they move within the framework established by the ECB and contribute to the achievement of its monetary policy objectives. Their significance also stems from the fact that they reflect market expectations regarding the future course of the ECB's monetary policy (Gómez Yubero et al., 2026).

3 Methodology for calculating Euribor rates and overview of their movements over the entire historical period

EMMI calculates and publishes Euribor based on data submitted by panel banks. The panel of banks comprises financial institutions selected to ensure that the Euribor reflects developments in the euro money market in a representative manner and serves as a representative indicator of conditions in that market. Although euro-denominated transactions are collected and analysed for the purpose of calculating Euribor, a bank does not necessarily have to be based in a euro area country to be included in the panel. Rather, it is important that

the bank is able to provide a representative indication of developments in the euro money market on account of its significant level of activity in that market. The UK bank Barclays Bank PLC was previously a member of the panel; however, as of 27 February 2026, it ceased submitting data on transactions and interest rates. The current panel comprises 21 banks from 11 countries, all of which are euro area member states.

In recent years, a number of reforms have been implemented with regard to the methodology used to calculate the Euribor rate, with the aim of ensuring a more accurate calculation. Prior to these reforms, panel banks submitted estimated data, whereas, following the implementation of the reforms, banks submitted data on actual transactions during the period from 2014 to 2019. "In its early stages, Euribor was calculated on the basis of declarative submissions from contributing institutions, reflecting their expert judgement as to the rate at which they could obtain unsecured funding in the interbank market." (Gómez Yubero et al., 2026, p. 54). This method of calculation left scope for subjective judgement, given that the data were not necessarily required to be based on actual transactions. In the early years of its application, when markets were relatively stable, this approach to calculation incurred no problems. However, during the crisis period, which began as early as 2007, it became apparent that the application of this methodology for calculating the Euribor rate created scope for opportunistic behaviour of participants in the panel of banks. Following the reform, the transition to a hybrid approach to calculating Euribor improved its economic representativeness. The data underlying the calculation thus became more responsive to changes in liquidity and in the rates at which banks borrow from one another, compared with the earlier dynamics of Euribor, which had been more stable due to the lower sensitivity of subjective assessments to such changes (Gómez Yubero et al., 2026). The methodological changes therefore represented significant progress in mitigating the impact of human judgement on the level of the Euribor rate and enabled a more objective and representative reflection of prevailing conditions in the euro money market.

What data are submitted to EMMI?

The basic concept underlying the calculation of Euribor is that each panel bank submits data on unsecured borrowing transactions and the interest rate at which it borrowed, for transactions with maturities of one week and one, three, six and twelve months. In addition, for a transaction to be eligible for inclusion in the Euribor calculation, its value must exceed EUR 10 mn. The transaction must also be denominated in euros and must constitute an unsecured borrowing transaction. However, it is not always the case that every bank executes transactions meeting these criteria on a daily basis. Therefore, the Euribor rate is currently calculated using two levels of information classified according to their quality.

Level 1

This category comprises transaction data that meet the criteria outlined above. These data represent the highest-quality information and, under ideal conditions, only such data would be used to calculate the Euribor rate. Where there is an insufficient number of transactions eligible for inclusion in the calculation, the methodology proceeds to the second level, Level 2, which involves performing certain calculations, as described in more detail below.

Level 2

When a bank does not have a sufficient number of eligible transactions, three techniques are used to calculate its contribution. These techniques are always applied sequentially, provided that eligible data are not available for the respective technique.

Level 2.1 – An adjusted linear interpolation from adjacent Defined Tenors is performed. For example, if a bank does not have eligible transactions for the six-month tenor, data on eligible transactions submitted by the bank for the adjacent three- and twelve-month tenors are used. Linear interpolation is then performed to derive the bank's calculated contribution for the six-month tenor.

Level 2.2 – A mathematical adjustment is applied to data on transactions at non-Defined Tenors. For example, if a bank has a transaction with a seven-month tenor, a mathematical adjustment is applied to derive the equivalent interest rate for a six-month tenor.

Level 2.3 – Where there are no appropriate data available for applying Levels 2.1 and 2.2, eligible data from previous days are used, with the application of a Market Adjustment Factor. For example, data on eligible transactions previously submitted by the bank are used, adjusted to reflect market developments that have occurred in the meantime.

Once the contributions of each individual panel bank have been calculated for each tenor, the contributions are sorted, and the highest 15% and lowest 15% of values are discarded in order to eliminate the impact of extreme values. A simple arithmetic mean is then calculated from the remaining 70% of the data, and this value is taken as the Euribor rate.

Data on the Euribor rate are published every working day at 11:00 a.m. The latest data are available exclusively to interested parties subscribed to receive real-time data. On the following day, the data become available to the wider public through various online platforms.

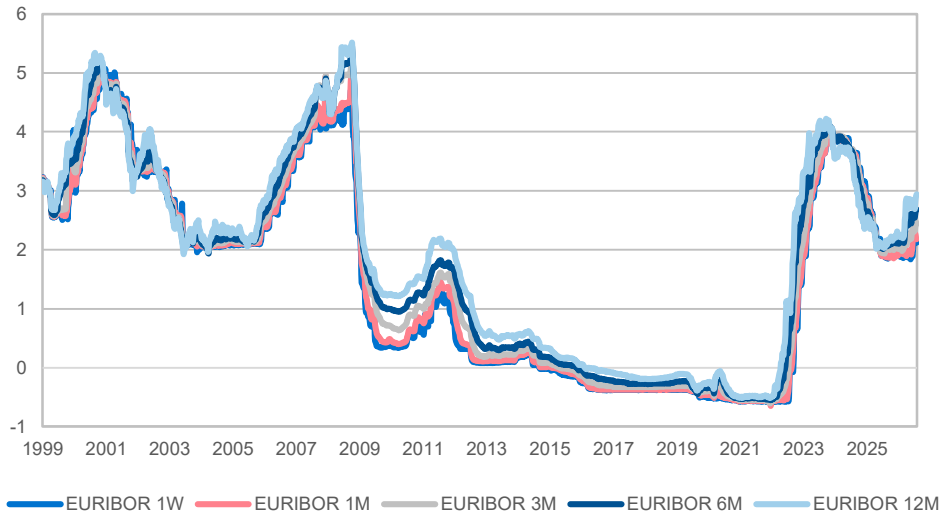
How have Euribor interest rates evolved?

In order to adequately assess the factors influencing the dynamics of the Euribor interest rate, this chapter also examines the evolution of Euribor interest rates from the beginning of the publication of daily data through to the latest available observations. Accordingly, the analysis covers the period from 1 January 1999 to 31 July 2026.

In the initial days, Euribor rates fluctuated at around 3%, followed by an upward trend in all tenors in the subsequent months, with the 12-month rate reaching as high as 5.3%. In the early 2000s, interest rates declined. In the period preceding the 2008 global financial crisis, Euribor rates recorded their strongest increase up to that point, reaching their highest historical levels, with the 12-month rate peaking at 5.5%. In the months that followed, rates declined sharply, reflecting the collapse of the financial system and the consequent loss of confidence in the banking system. Following a period of rising rates, which brought them to around 2%, negative rates were recorded from the mid-2010s onward, with Euribor rates reaching their historical lows. At one point, the one-month Euribor rate fell to as low as -0.65%. The trend of negative interest rates continued over the following several years, despite an increase recorded during the onset of the Covid-19 crisis. At the beginning of 2022, following the outbreak of the war in Ukraine, interest rates moved out of negative territory and increased

sharply through autumn 2023, when they reached around 4%. In the subsequent months, all rates resumed a downward trend, which came to a halt during the summer of 2025, when rates stood at around 2%. This trend continued until spring of the current year, when a modest increase in interest rates was observed again. By the end of the period under review, the rate reflecting the longest maturity, i.e. the 12-month rate, had reached a level close to 3%.

Chart 1 **Movement of Euribor benchmark interest rates**
(weekly data, p.a., in %)



Source: Euribor Rates (n.d.).

4 Theoretical overview of the factors influencing Euribor dynamics

To conduct a comprehensive analysis of the factors influencing the dynamics of the Euribor rate, it is necessary to consider the theoretical foundations underlying this phenomenon and review the findings from empirical research to date. Accordingly, this chapter examines, from a theoretical perspective, the factors affecting Euribor rates and reviews the existing literature presenting empirical evidence in this regard.

Since the interest rate represents the price of capital in the money market, its level and dynamics are determined by the supply of and demand for money (Vilmunen, 2024). According to Juotasniemi (2026), interest rate dynamics are influenced by the supply of and demand for credit, inflation, and central bank policy. In the case of the Euribor rate, this refers to the interest rate policy conducted by the ECB. In addition, the level of interest rates is affected by the degree of liquidity in the banking system (Gómez Yubero et al., 2026), as well as by market expectations regarding the ECB's future policy stance. This is attributable to the forward-looking nature of the Euribor rate, particularly in the case of longer tenors (three, six and twelve months). In line with their expectations regarding the ECB's policy over the forthcoming period, market participants may adjust these rates in advance (Juotasniemi, 2026). In addition to the factors outlined above, geopolitical tensions are also considered among the significant determinants, as they increase uncertainty and investors' risk aversion, slow economic activity through disruptions to supply chains, and generate other adverse effects on

the economy (ECB, 2024). It has been observed that the ECB considers geopolitical risks to be among the key threats to financial stability (Juotasniemi, 2026). During periods of heightened geopolitical tensions, the ECB seeks to preserve stability through its interest rate policy, which is also reflected in the level of the Euribor rate (Juotasniemi, 2026).

Interest rates tend to increase in response to higher demand for money and credit and rising inflation, whereas weaker demand for money and declining prices exert downward pressure on interest rates. Geopolitical tensions have an adverse effect on interest rates, contributing to higher rate levels.

The role of the ECB will be analysed in greater detail below. The ECB conducts monetary policy in the European Monetary Union with the primary objective of maintaining price stability by keeping inflation at 2% over the medium term. Low inflation would put downward pressure on interest rates and slow economic activity, whereas high inflation would lead to higher interest rates, which would also adversely affect lending activity and reduce demand for credit. For this reason, the ECB sets three key interest rates through which it seeks to influence the money market and maintain price stability. These are the interest rate on the deposit facility, the interest rate on the main refinancing operations, and the interest rate on the marginal lending facility.

The following is a description of the aforementioned rates according to the ECB (n.d.):

- Deposit Facility Rate – DFR

The interest rate at which banks can place overnight deposits with the ECB at a predetermined rate. In theoretical terms, this rate represents the lower bound for the Euribor rate, given that no bank would be willing to lend at a rate below that at which it can place a deposit with the ECB, particularly since placing deposits with the ECB is considered virtually risk-free.

- Main Refinancing Operations – MRO

Commercial banks can borrow funds from the ECB at this rate for a period of one week, subject to the provision of eligible collateral. In this way, the ECB manages liquidity over a seven-day horizon. This rate is higher than the DFR.

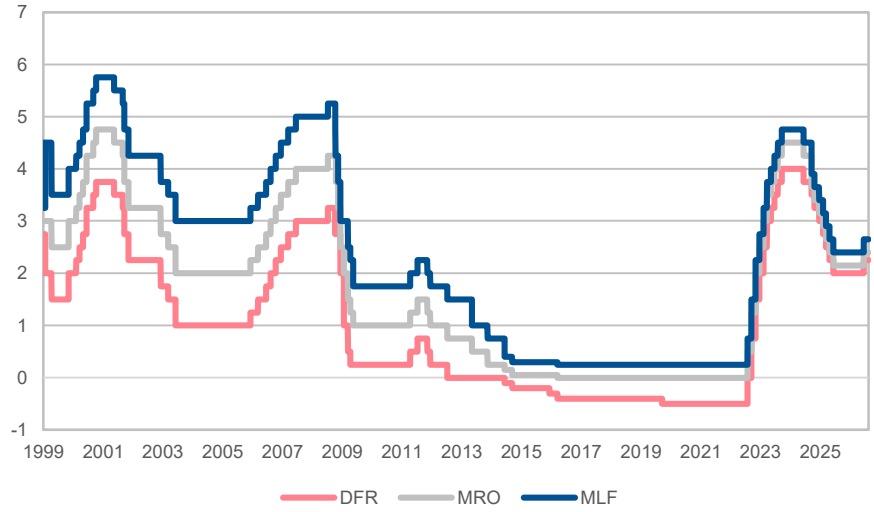
- Marginal Lending Facility – MLF

Like the DFR, the MLF is an interest rate applicable to overnight transactions; however, in this case, banks borrow from the central bank at this rate against eligible collateral. This rate is higher than the MRO rate and represents the upper bound for interest rates, as no bank would borrow at a higher rate than the rate at which it can obtain funding from the central bank.

Since the introduction of the euro, the ECB initially raised interest rates, before lowering them and maintaining them at a stable level in the mid-2000s. In the period preceding the 2008 Global Financial Crisis, a policy of raising key interest rates was pursued; following the outbreak of the crisis, these rates were reduced sharply with the aim of stimulating lending and

economic activity. Over the previous decade, the ECB maintained the interest rate on the deposit facility below zero. Subsequently, in response to the increase in inflation driven by the energy crisis and the war in Ukraine, it pursued a policy of raising interest rates in order to mitigate these adverse effects. Monetary policy easing was observed from mid-2024, while, as of March 2024, the ECB's Governing Council decided to steer monetary policy primarily through the DFR. In recent months, monetary policy has been tightened slightly amid renewed uncertainty stemming from the energy crisis, this time due to tensions in the Strait of Hormuz and the conflict between Iran and the United States. A graphical presentation of the ECB's three key interest rates is provided in the following chart.

Chart 2 **Movement of the ECB's key interest rates**
(six-week data, p.a., in %)



Source: ECB (n.d.).

Given that the ECB's interest rates establish the corridor within which Euribor rates fluctuate, it may be assumed that the principal determinant of the dynamics and level of the Euribor rate is the ECB's monetary policy. Market expectations regarding the ECB's future policy stance also play an important role. The actual level of the Euribor rate is expected to be determined by other market factors, while the influence of non-market factors should not be overlooked, particularly that of geopolitical tensions, which are becoming increasingly important in view of their growing frequency and their impact on economic activity.

5 Analysis of the factors influencing the dynamics of the Euribor interest rate

This section of the paper focuses on analysing the impact of various factors on the dynamics of the Euribor rate. Given that theory indicates that the monetary policy of the ECB has the greatest influence on the level of Euribor rates, the analysis will focus primarily on the impact of the DFR and the MRO. In addition, the analysis will examine the impact of inflation on Euribor dynamics. In order to obtain a more comprehensive assessment of the factors influencing Euribor, the joint impact of inflation, the DFR and the MRO will also be examined.

5. 1 Review of the existing literature

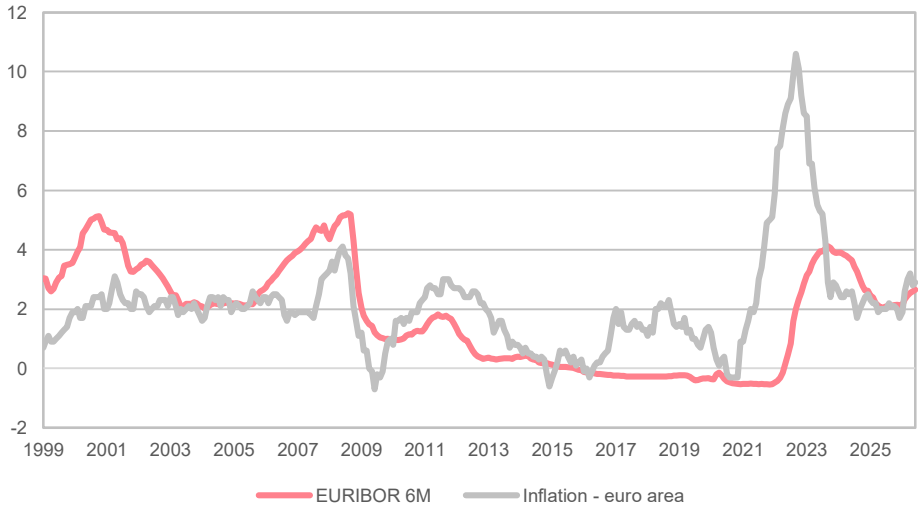
In their study, Abbassi and Linzert (2011) examine the impact of monetary policy on the dynamics of the Euribor rate, focusing on developments before and after the onset of the 2008 global financial crisis. According to their findings, an expected 25-bp change in the key interest rate led to an increase of 17 bp in the three-month Euribor, while the six-month and twelve-month Euribor rates increased by 19 and 23 bp, respectively. These findings confirm the strong influence of monetary policy on interest rate dynamics. The low degree of persistence observed over the period under review indicates that the ECB maintained stable control over longer-term interest rates. In the period following the outbreak of the crisis, different results were observed in respect of the aforementioned case. In addition to an increase in the persistence of Euribor rates across all three tenors, the influence of the ECB's monetary policy diminished, as an expected 25 bp change in the key interest rate resulted in an increase of only around 3 bp in each of the three Euribor rates under consideration. However, given that monetary policy measures were effective in lowering interest rates, the authors concluded that the reduced influence of the ECB through the policy rate channel was offset by effective liquidity management in the money market.

In their study, Iommetti (2025) analyses the impact of inflationary pressures on the ECB's monetary policy. Given that monetary policy affects the level of Euribor, understanding the factors that influence the ECB's monetary policy stance is of particular importance. The study uses data for 2022 and 2023, a period characterised by substantial inflationary pressures following the Covid-19 crisis, as well as supply chain disruptions caused by the war in Ukraine, against the backdrop of the ECB's previously accommodative monetary policy stance. The high coefficient of determination, $R^2 = 0.996$, indicates a strong relationship between inflation dynamics and the main refinancing rate. Conversely, during periods of declining inflation, when the real interest rate becomes positive, the model's predictive power decreases. The study develops a model that can be used to forecast ECB interest rates under specific conditions characterised by elevated inflation. These findings indicate that inflation is one of the factors influencing Euribor, with an expected indirect impact through the ECB's monetary policy.

5. 2 Impact of inflation on Euribor dynamics

The impact of inflation on the dynamics of Euribor will first be examined. Economic theory suggests that an increase in the general price level in the economy leads to higher money market interest rates and, consequently, to an increase in the Euribor rate. For the purposes of the analysis, monthly inflation data for the euro area published by the ECB will be used, covering the period from January 1999 to July 2026. For the same period, the analysis will use the ECB's monthly data on the Euribor rate with a six-month tenor (EURIBOR 6M).

Chart 3 **Dynamics of Euribor 6M and y-o-y inflation in the euro area**
(monthly data, p.a., in %)



Source: ECB (n.d.).

An examination of the trajectories of inflation and the six-month Euribor rate reveals broadly similar trends. During periods of rising inflation, the Euribor rate also tends to increase, while periods of declining inflation are generally accompanied by a decrease in Euribor. Of particular importance is the observation that, as inflation began to rise sharply in mid-2021, the Euribor rate also started to increase, albeit with a certain lag. However, the chart also indicates some deviations from the co-movement of the two variables, particularly during the period from 2015 to 2020. During this period, inflation underwent phases of increase, relative stagnation, and decline, whereas the six-month Euribor rate remained relatively stable throughout the period under review. This phenomenon can be explained by the broadly unchanged ECB monetary policy stance over the same period. Despite inflationary pressures, interest rates were maintained at broadly the same level, which in turn contributed to the relative stability of the Euribor rate. The ECB's monetary policy stance in 2021 and 2022 indicates that the ECB did not immediately respond to mounting inflationary pressures by raising policy rates, resulting in a subsequent increase in Euribor relative to the rise in inflation.

Model methodology and specification

The analysis uses monthly data for the euro area covering the period from January 1999 to July 2026. Following data cleaning and the introduction of time lags, the final sample comprises N = 328 observations.

Model: An ARDL model was estimated, with the six-month Euribor rate as the dependent variable and inflation with a time lag and the lagged six-month Euribor rate as independent variables:

$$EURIBOR_t = \beta_0 + \beta_1 EURIBOR_{t-1} + \beta_2 INFLATION_{t-1} + \beta_3 INFLATION_{t-2} + \beta_4 INFLATION_{t-3} + \varepsilon_t$$

In the formula:

- $EURIBOR_t$ – the dependent variable, Euribor 6M,

- β_0 – the constant term in the model,
- $\beta_1 EURIBOR_{t-1}$ – the impact of the lagged Euribor rate on the current Euribor rate,
- $\beta 2$ – the estimated coefficient on inflation in the previous month,
- $INFLATION_{t-1}$ – the inflation rate one month earlier,
- β_3 – the estimated coefficient on inflation two months earlier,
- $INFLATION_{t-2}$ – the inflation rate two months earlier,
- β_4 – the estimated coefficient on inflation three months earlier,
- $INFLATION_{t-3}$ – the inflation rate three months earlier,
- ε_t – the stochastic error.

The results of the analysis:

Table 1 **Results of the analysis of the impact of inflation on Euribor 6M**

	coeff.	stand. error	*t* - statistics	*p* - value
constant	-0.0516	0.013	-4.020	0.000
$EURIBOR_{t-1}$	0.990	0.005	215.065	0.000
$INFLATION_{t-1}$	0.078	0.023	3.320	0.001
$INFLATION_{t-2}$	0.017	0.037	0.456	0.649
$INFLATION_{t-3}$	-0.0631	0.024	-2.664	0.008

Source: Author's calculations using the Python programming language.

The model exhibits an exceptionally high coefficient of determination ($R^2 = 0.994$; adjusted $R^2 = 0.994$), which is common for time series with a strong autoregressive structure. The first lag of Euribor has a coefficient of 0.9900 (t = 215.065). Inflation with a one-month lag has a statistically significant positive effect, with an estimated coefficient of 0.0780, while the non-robust and robust p-values are 0.001 and 0.019, respectively. The second lag of inflation does not have a statistically significant positive effect (coefficient = 0.0170; p = 0.649; robust p = 0.676). The third lag of inflation exhibits a negative effect, with a coefficient of -0.0631 and p-values of 0.008 and 0.029 for the non-robust and robust estimates, respectively.

However, the overall effect of inflation is statistically significant.

F – test:

$F = 26.45$

$p = 2.52 \times 10^{-15}$

The following hypothesis is tested:

$$H_0 : \beta_{INF1} = \beta_{INF2} = \beta_{INF3} = 0$$

H1: At least one of the coefficients is not equal to zero.

Given the results of the F-test, with $p < 0.001$, the null hypothesis is rejected, confirming that overall inflation has a significant impact on the dynamics of the six-month Euribor rate.

Model diagnostics and robustness

Model diagnostics revealed a high degree of multicollinearity, as indicated by elevated VIF values for the inflation lags (ranging from 30 to 77). This is a common occurrence in successive lags of macroeconomic time series; nevertheless, the model was retained to capture the overall dynamics of the distributed lags.

Autocorrelation and heteroskedasticity:

The Breusch–Godfrey test indicates the presence of autocorrelation in the residuals ($p < 0.001$), while the Breusch–Pagan test indicates the presence of heteroskedasticity, with $p < 0.001$.

To eliminate the effect of heteroskedasticity on statistical inference, HC3 robust standard errors were employed. In the model with robust standard errors, the conclusions remain unchanged, as the coefficients on $INFLATION_{t-1}$ ($p = 0.019$) and $INFLATION_{t-2}$ ($p = 0.029$) remain statistically significant.

The short-term contribution of inflation to the Euribor rate at time t ($DINF_t$) is defined below by the following general formula:

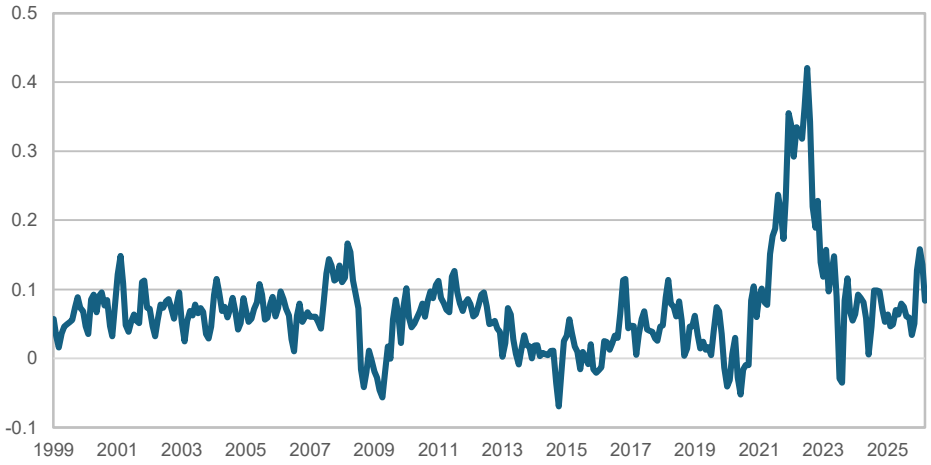
$$DINF_t = \beta_2 INFLATION_{t-1} + \beta_3 INFLATION_{t-2} + \beta_4 INFLATION_{t-3}$$

By substituting the estimated coefficients for the three inflation lags from Table 1, we obtain the following explicit form of the equation:

$$DINF_t = 0{,}078 * INFLATION_{t-1} + 0{,}017 * INFLATION_{t-2} - 0{,}0631 * INFLATION_{t-3}$$

The following chart presents the estimated short-term contribution of inflation to the Euribor rate, expressed in pp. It can be observed that the contribution was positive throughout most of the period under review, ranging from approximately 0.03 to 0.12. The largest effect, at around 0.42 pp, was recorded in late November 2022, shortly after inflation had reached its peak and begun to decline. Based on the foregoing, it may be concluded that inflation has a statistically significant effect on the dynamics of Euribor, assuming that this effect is transmitted indirectly, given the role of the ECB's monetary policy. As noted above, the ECB's monetary policy defines the corridor within which interest rates move and is, to a considerable extent, influenced by inflation developments.

Chart 4 **Estimated contribution of inflation to Euribor 6M**
(monthly data, in pp)

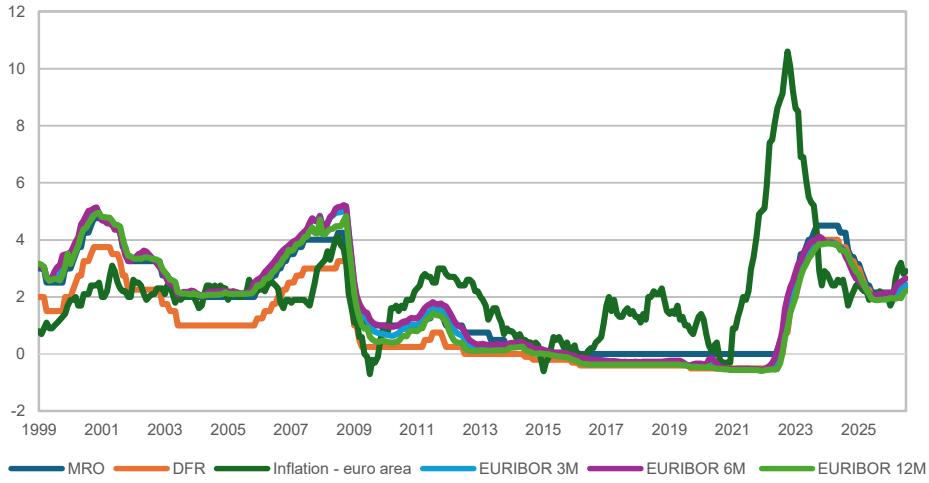


Source: Author's calculations using the Python programming language.

5. 3 Impact of the DFR, MRO, and inflation on Euribor dynamics

The impact of the ECB's interest rates on the dynamics of the three-month, six-month, and twelve-month Euribor rates, together with the impact of inflation, will be analysed below. However, the following chart shows similar trends across all variables under consideration, particularly the close alignment between the movements in Euribor rates and the ECB's interest rates.

Chart 5 **Movements of Euribor 3M, Euribor 6M, Euribor 12M, euro area inflation, DFR and MRO**
(monthly data, p.a., in %)



Source: ECB (n.d.).

In a period of limited liquidity, the MRO rate was the main reference rate, whereas following 2015, amid a period of abundant liquidity, the DFR gradually gained importance. Following the decision of the ECB's Governing Council in March 2024, monetary policy has been steered primarily through the DFR (ECB, 2024). Against this background, the independent variable is denoted as the ECB interest rate in this paper, with data on the MRO

reference interest rate used for the period from January 1999 to December 2014, and data on the DFR reference interest rate used for the period from January 2015 to July 2026.

The analysis uses monthly data for the euro area covering the period from January 1999 to July 2026. Following adjustments made for the purposes of model estimation, the final sample comprises N = 331 observations. An ARDL model is employed.

Impact on Euribor 3M

Based on automatic selection (AIC = -670.109) and the information criteria (BIC = -620.799), together with the low standard deviation of the innovations of 0.084, an ARDL (3, 3, 3) model was estimated. The dependent variable is the three-month Euribor, while the independent variables are lagged Euribor, euro area inflation, and the ECB reference interest rate, which combines the MRO and DFR rates. The VIF values for inflation and the ECB interest rate are 1.698, well below the reference threshold of 5, confirming that the model does not suffer from multicollinearity.

$$EURIBOR_t = \alpha_0 + \sum_{(i=1)}^{3} \phi_i \, EURIBOR_{(t-i)} + \sum_{(j=0)}^{3} \beta_j \, ECB_{(t-j)} + \sum_{(k=0)}^{3} \gamma_k \, INF_{(t-k)} + \varepsilon_t$$

In the formula:

- $EURIBOR_t$ – the dependent variable Euribor 3M in period t,
- α_0 – constant in the model,
- $\sum_{(i=1)}^{3} \phi_i \, EURIBOR_{(t-i)}$ – the autoregressive component of the model captures the effects of Euribor from the previous period, two periods earlier, and three periods earlier on the current Euribor, while ϕ_i represents the coefficients measuring the effects of these values,
- $\sum_{(j=0)}^{3} \beta_j \, ECB_{(t-j)}$ – the component of the model captures the effects of the ECB interest rate from the previous period, two periods earlier, and three periods earlier on the current Euribor, while β_j represents the coefficients measuring the effects of these lagged values,
- $\sum_{(k=0)}^{3} \gamma_k \, INF_{(t-k)}$ – the component of the model captures the effects of inflation in the previous period, two periods earlier, and three periods earlier on the current Euribor, while γ_k represents the coefficients measuring the effects of these values,
- ε_t – stochastic error.

Table 2 **Results of the analysis of the impact of inflation and ECB interest rates on Euribor 3M**

	coeff.	stand. error	*z* - statistics	p - value
α_0	0.0009	0.009	0.104	0.917
$EURIBOR_{t-1}$	1.2252	0.059	20.763	0.000
$EURIBOR_{t-2}$	-0.4472	0.088	-5.093	0.000

	coeff.	stand. error	*z* - statistics	p - value
$EURIBOR_{t-3}$	0.1519	0.054	2.827	0.005
ECB_{t}	0.3613	0.039	9.324	0.000
ECB_{t-1}	-0.0282	0.054	-0.519	0.604
ECB_{t-2}	-0.0533	0.054	-0.995	0.321
ECB_{t-3}	-0.2087	0.044	-4.789	0.000
INF_{t}	0.0335	0.015	2.212	0.028
INF_{t-1}	-0.0145	0.024	-0.609	0.543
INF_{t-2}	-0.0002	0.024	-0.009	0.993
INF_{t-3}	-0.0168	0.015	-1.093	0.275

Source: Author's calculations using the Python programming language.

The results presented in Table 2 indicate that the coefficient of 0.0009, with p = 0.917, has no statistically significant effect on Euribor 3M. Despite the three low p-values, the endogenous variable has a statistically significant effect on its own current value, with the effect being positive at the first and third lags (1.2252 and 0.1519, respectively), while a negative effect of -0.4472 is estimated at the second lag. The current ECB interest rate has a strong and statistically significant effect, with a coefficient of 0.3613 and p = 0.000, as does its value at the third lag (coefficient = -0.2087; p = 0.000). The first and second lags do not have a statistically significant effect on Euribor 3M. The current inflation rate has a small but statistically significant effect on Euribor, whereas its lagged values do not have a statistically significant effect.

When conducting the bounds test for cointegration, the calculated F-statistic was 3.819, which is above the upper critical value at the conventional significance levels. The lower-bound p-value was 0.021, while the upper-bound p-value was 0.092. These results provide limited evidence of a cointegrating relationship between three-month Euribor, ECB monetary policy, and inflation in the euro area.

The results of the ECM (Error Correction Model) estimation show that the error-correction coefficient (associated with EURIBOR $3M_{t-1}$ in the ECM model) is -0.0702 (p = 0.001). This indicates a negative, stable, and statistically significant, but relatively slow adjustment mechanism toward the long-run equilibrium, with 7% corrected each month.

Short-run effect of the ECB interest rate in the ECM model: 0.3613 + 0.2620 + 0.2087 = 0.8320

A 1 pp increase in the ECB interest rate over the short run, spanning several months, increases EURIBOR 3M by approximately 0.83 pp, while only the effect of current inflation is statistically significant.

The cointegration equation is as follows:

$EURIBOR\ 3M_t = 0.013 + 1.014 * ECB_t + 0.029 * INF_t$

A 1 pp increase in the ECB interest rate in the long run increases EURIBOR $3M_t$ by approximately 1.01 pp, while the effect of inflation is negligible.

Impact on Euribor 6M

Based on the information criterion (BIC = -644.353) and automatic selection (AIC = -689.906), the true ARDL (2, 1, 5) model was estimated, where the dependent variable is the six-month Euribor, while the independent variables are lagged Euribor, euro area inflation, and the ECB reference interest rate (ECB, which combines the MRO and DFR rates).

$$EURIBOR_t = \alpha_0 + \sum_{(i=1)}^{3} \phi_i \, EURIBOR_{(t-i)} + \sum_{(j=0)}^{3} \beta_j \, ECB_{(t-j)} + \sum_{(k=0)}^{3} \gamma_k \, INF_{(t-k)} + \varepsilon_t$$

In the formula:

- $EURIBOR_t$ – Dependent variable: Euribor 6M in period t,
- α_0 – constant in the model,
- $\sum_{(i=1)}^{3} \phi_i \, EURIBOR_{(t-i)}$ – the autoregressive component of the model captures the effects of Euribor in the previous period and two periods earlier on the current Euribor, while ϕ_i represents the coefficients measuring the effects of these lagged values,
- $\sum_{(j=0)}^{3} \beta_j \, ECB_{(t-j)}$ – the component of the model captures the effects of the ECB interest rate in the previous period, two, three, four, and five periods earlier on the current Euribor, while β_j represents the coefficients measuring the effects of these lagged values,
- $\sum_{(k=0)}^{3} \gamma_k \, INF_{(t-k)}$ – the component of the model captures the effects of inflation in the previous period and two periods earlier on the current Euribor, while γ_k represents the coefficient measuring the effects of these values,
- ε_t – stochastic error.

Table 3 **Results of the analysis of the impact of inflation and ECB interest rates on Euribor 6M**

	coeff.	stand. error	*z* - statistics	p - value
constant	-0.0516	0.009	0.032	0.975
$EURIBOR_{t-1}$	1.3554	0.054	25.200	0.000
$EURIBOR_{t-2}$	-0.4175	0.054	-7.731	0.000
ECB_t	0.3033	0.040	7.665	0.000
ECB_{t-1}	0.0018	0.053	0.034	0.973
ECB_{t-2}	-0.1091	0.052	-2.080	0.038
ECB_{t-3}	-0.232	0.052	-4.439	0.000
ECB_{t-4}	-0.0243	0.053	-0.458	0.647

	coeff.	stand. error	*z* - statistics	p - value
ECB_{t-5}	0.1206	0.036	3.353	0.001
INF_t	0.0469	0.014	3.247	0.001
INF_{t-1}	-0.0399	0.015	-2.727	0.007

Source: Author's calculations using the Python programming language.

When conducting the bounds test for cointegration, the calculated F-statistic was 4.978, which is above the upper critical value at the conventional significance levels. Both p-values are below the standard 5% significance threshold, with the lower-bound p-value equal to 0.00351 and the upper-bound p-value equal to 0.0214. Thus, the null hypothesis of no cointegration is rejected, confirming the existence of a stable long-run equilibrium relationship between the six-month Euribor, ECB monetary policy, and inflation in the euro area.

The results of the ECM estimation show that the error-correction coefficient (associated with $EURIBOR_{t-1}$ in the ECM model) is -0.0621 ($p = 0.001$), indicating a negative, stable, and statistically significant, but relatively slow adjustment mechanism toward the long-run equilibrium, with approximately 6.2% corrected each month.

Impact of the ECB interest rate: The central bank's reference interest rate has a dominant and highly statistically significant effect on the movement of market interest rates in both the short and long run, with the current value having a coefficient as high as 0.3033, with $p < 0.001$. A 1 pp increase in the ECB interest rate is associated with an increase in Euribor of approximately 0.3033 pp in the same period.

Short-run effect of the ECB interest rate in the ECM model: 0.3033 + 0.2448 + 0.1356 – 0.0963 – 0.1206 = 0.4668

A 1 pp increase in the ECB interest rate over the short run, spanning several months, increases EURIBOR 6M by approximately 0.47 pp, while only the effect of current inflation is statistically significant.

Impact of inflation: The current inflation value, INF_t, has a statistically significant positive short-run effect, with a coefficient of 0.0469 and $p = 0.001$, while INF_{t-1} exhibits a small negative effect, with a coefficient of -0.0399 and $p = 0.007$. In practical terms, a 1 pp increase in inflation in the current period is associated with an increase in Euribor of approximately 0.047 pp in the same period.

The cointegration equation is as follows:

$$EURIBOR\ 6M_t = 0.0051 + 0.9726 * ECB_t + 0.1127 * INF_t$$

The long-run effect of the ECB interest rate is as high as 0.97, indicating that the exogenous variable also has a stronger effect in the long run than in the short run. The long-run effect of inflation is approximately 0.113, indicating that the effect of inflation is stronger in the long run than in the short run.

Using the selected ARDL (2, 1, 5) model and conducting the bounds test for cointegration, the existence of a long-run equilibrium relationship among the variables under consideration was successfully established. The ECM estimation reveals a stable adjustment mechanism

toward long-run equilibrium, with the ECB reference interest rate playing a dominant role in determining the movement of market interest rates and, consequently, Euribor. It was also found that inflation has a statistically significant short-run effect on Euribor, albeit a smaller one. This is consistent with the actual functioning of the money market, where inflation exerts an indirect influence through monetary policy, which directly affects interest rates and, in turn, adjusts to inflation dynamics. Therefore, it can be concluded that there is a significant short- and long-run relationship between six-month Euribor, euro area inflation, and the ECB's reference interest rate.

Impact on Euribor 12M

Based on automatic selection (AIC = -662.39) and the information criteria (BIC = -613.08), the ARDL (3, 3, 3) model was estimated, where the dependent variable is the twelve-month Euribor, while the independent variables are lagged Euribor, euro area inflation, and the ECB reference interest rate, which combines the MRO and DFR rates. The VIF values for inflation and the ECB interest rate are 1.7, well below the reference threshold of 5, confirming that there is no multicollinearity problem in the model.

$$EURIBOR_t = \alpha_0 + \sum_{(i=1)}^{3} \phi_i \, EURIBOR_{(t-i)} + \sum_{(j=0)}^{3} \beta_j \, ECB_{(t-j)} + \sum_{(k=0)}^{3} \gamma_k \, INF_{(t-k)} + \varepsilon_t$$

In the formula:

- $EURIBOR_t$ – the dependent variable: Euribor 12M in period t,
- α_0 – constant in the model,
- $\sum_{(i=1)}^{3} \phi_i \, EURIBOR_{(t-i)}$ – the autoregressive component of the model captures the effects of Euribor in the previous period, two periods earlier, and three periods earlier on the current Euribor, while ϕ_i represents the coefficients measuring the effects of these lagged values,
- $\sum_{(j=0)}^{3} \beta_j \, ECB_{(t-j)}$ – the component of the model captures the effects of the ECB interest rate in the previous period, two periods earlier, and three periods earlier on the current Euribor, while β_j represents the coefficients measuring the effects of these lagged values,
- $\sum_{(k=0)}^{3} \gamma_k \, INF_{(t-k)}$ – the component of the model captures the effects of inflation in the previous period, two periods earlier, and three periods earlier on the current Euribor, while γ_k represents the coefficients measuring the effects of these lagged values,
- ε_t – stochastic error.

Table 4 **Results of the analysis of the impact of inflation and ECB interest rates on Euribor 12M**

	coeff.	standard error	z – statistics	p - value
α_0	0.0002	0.009	0.027	0.978
$EURIBOR_{t-1}$	0.8616	0.055	15.583	0.000
$EURIBOR_{t-2}$	-0.0115	0.073	-0.158	0.875
$EURIBOR_{t-3}$	0.0713	0.049	1.456	0.147
ECB_t	0.5588	0.037	15.194	0.000
ECB_{t-1}	-0.0884	0.058	-1.516	0.130
ECB_{t-2}	-0.1356	0.057	-2.366	0.019
ECB_{t-3}	-0.2532	0.050	-5.104	0.000
INF_t	0.0256	0.015	1.676	0.095
INF_{t-1}	-0.0107	0.024	-0.443	0.658
INF_{t-2}	-0.0086	0.024	-0.356	0.722
INF_{t-3}	-0.0096	0.016	-0.617	0.538

Source: Author's calculations using the Python programming language.

The results presented in Table 4 indicate that the coefficient, with a value of 0.0002 and p = 0.978, has no statistically significant effect on Euribor 12M. The effect of the endogenous variable at the first lag on its current value is statistically significant and positive (coefficient = 0.8616, p = 0.000), while the effects of the second and third lags are not statistically significant. The current ECB interest rate has a strong and statistically significant effect, with a coefficient of 0.5588 and p = 0.000, while the values of the second and third lags are statistically significant and negative.

When conducting the bounds test for cointegration, the calculated F-statistic was 4.189, which is above the upper critical value at the conventional significance levels. The lower-bound p-value is 0.0119, while the upper-bound p-value is 0.0589, providing limited evidence of a cointegrating relationship between the twelve-month Euribor, ECB monetary policy, and inflation in the euro area.

The results of the ECM estimation show that the error-correction coefficient (associated with EURIBOR $12M_{t-1}$ in the ECM model) is -0.0786 (p = 0.001), indicating a negative, stable, and statistically significant, but relatively slow adjustment mechanism toward the long-run equilibrium, with approximately 7.9% corrected each month.

Short-run effect of the ECB interest rate in the ECM model: 0.5588 + 0.3887 + 0.2532 = 1.2007

A 1 pp increase in the ECB interest rate over the short run, spanning several months, increases EURIBOR 12M by approximately 1.2 pp, indicating that monetary policy has a stronger effect on EURIBOR 12M than on EURIBOR 3M and, particularly, EURIBOR 6M.

The cointegration equation is as follows:

$$EURIBOR\ 12M_t = 0.0025 + 1.038 * ECB_t + 0.041 * INF_t$$

In the long run, a 1 pp increase in the ECB interest rate increases EURIBOR $12M_t$ by approximately 1.04 pp, while the effect of inflation is negligible.

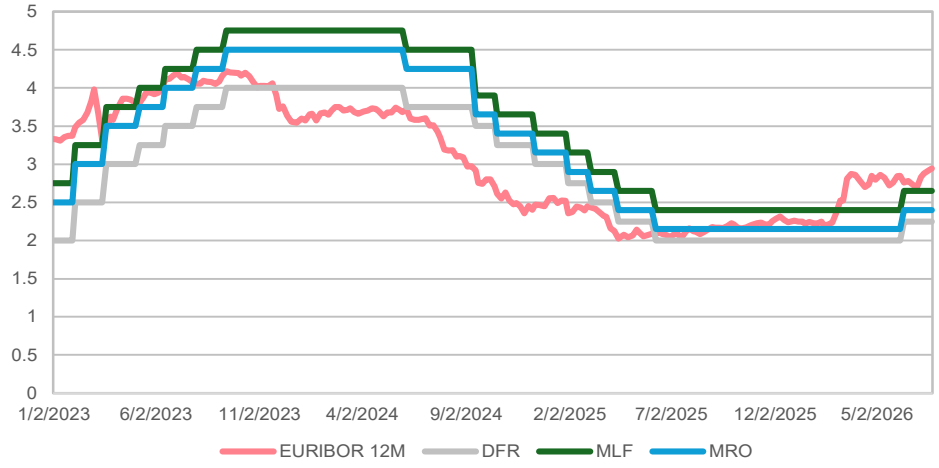
5.4 Other factors affecting Euribor

As mentioned earlier in the paper, ECB interest rates form a corridor within which market interest rates fluctuate. However, the data presented in the following charts point to a different situation in practice. The chart examines the movements of the twelve-month Euribor and all three ECB interest rates. A deviation from the theoretical assumption can be observed: at the end of 2023, Euribor fell below the prevailing DFR, while in the first half of the current year, it exceeded the MLF, which is considered the upper bound that Euribor would theoretically be expected to reach.

This raises the question of why such an outcome is observed in practice. The answer can be found by considering the type of interest rate and taking into account the other factors affecting Euribor. Namely, as mentioned earlier, in addition to the ECB's monetary policy, Euribor is also influenced by market expectations regarding the future course of monetary policy. As a result, market interest rates may change even before the ECB officially changes its policy rate. This can explain precisely the situation in which Euribor falls significantly below the lower bound of the corridor, as the market anticipated that the ECB would embark on monetary easing and lowered interest rates in advance. Given that the Euribor under consideration has a 12-month maturity, market expectations that the ECB will reduce its reference interest rates in the future become particularly pronounced.

Another interesting situation can be observed when examining the data for the current year. During a period of geopolitical tensions, which have had a particularly pronounced impact on energy prices, the market responded by raising one-year borrowing rates even before the ECB began tightening monetary policy.

Chart 6 **Movement of Euribor 12M, DFR, MRO and DLF**
(daily data, p.a., in %)



Source: Bank of Finland, (n.d.), ECB (n.d.).

5.5 Overall assessment of the analysis results

The results of the preceding analyses confirm the strong influence of the ECB's monetary policy on Euribor rates across all maturities. Although the analysis of the impact of inflation on Euribor confirmed a statistically significant effect of inflation, the model incorporating both inflation and monetary policy indicates that the ECB monetary policy is the primary determinant of Euribor. It is noteworthy, however, that over shorter observation horizons, Euribor movements occasionally deviate from the corridor defined by the ECB, indicating that other factors also influence Euribor level, such as market expectations and geopolitical tensions. Therefore, when assessing the future path of Euribor, it is essential to monitor the factors underlying the ECB's policy decisions and market expectations, while also bearing in mind that actual outcomes depend on other factors whose impact is often difficult to anticipate and whose evolution cannot be influenced.

6 Conclusion

Let us conclude by reviewing the key findings addressed in this paper. Despite all the challenges it has faced over its nearly three-decade-long history, the Euribor rate remains one of the key indicators in financial markets and determines the cost of many of the financial products discussed above, which, in the case of Serbia, most commonly include housing loans. The change in the calculation methodology has minimized the human factor, which, as noted earlier, had a negative impact on the objectivity of the data. The data calculated under the new methodology are more representative and better reflect actual conditions in the money market. Among the main factors influencing the level of Euribor rates is undoubtedly the monetary policy of the ECB, which, by setting three key interest rates, determines the corridor within which market interest rates, and consequently Euribor, fluctuate. Using the ARDL model, it was found that a 1 pp increase in ECB interest rates leads to a short-run increase in the three-month Euribor of 0.83 pp, the six-month Euribor of 0.47 pp, and the twelve-month Euribor of as much as 1.2 pp. This finding indicates that the ECB's monetary policy has a stronger impact on longer-term Euribor rates. In addition, the analysis shows that a 1 pp increase in inflation in the current period leads to an increase in the six-month Euribor of 0.047 pp, while the corresponding effect on the three-month Euribor amounts to only 0.03 pp. For the twelve-month Euribor, the estimated effect is not statistically significant. These findings suggest that inflation affects Euribor indirectly, primarily through its influence on the ECB's monetary policy. As noted above, among the factors influencing Euribor are market expectations regarding the future course of monetary policy, as well as the significant impact of geopolitical tensions on interest rate dynamics and the economy as a whole. Therefore, all stakeholders in the banking sector and the broader financial market seeking to project future Euribor rates should take ECB monetary policy into account, while also monitoring non-market factors that may have a potentially significant impact, most notably geopolitical tensions. This paper provides a basic overview of the factors influencing Euribor rates. Further research into this phenomenon could examine the effects of other macroeconomic indicators, as well as factors that may not have been considered to date in the analyses of the determinants of Euribor dynamics.

Literature

Abbassi, P., & Linzert, T. (2011). The effectiveness of monetary policy in steering money market rates during the recent financial crisis (ECB Working Paper Series No. 1328). European Central Bank

Bank of Finland. (n.d.). Euribor rates, daily values. Available at: https://www.suomenpankki.fi/en/statistics/data-and-charts/interest-rates/charts/korot_kuviot_en/euriborkorot_pv_chrt_en/

Beck, T., Bruno, B. and Carletti, E. (2025). The impact of geopolitical shocks on banks' financial soundness in the Banking Union. European Parliament, Economic Governance and EMU Scrutiny Unit. Available at:
https://www.europarl.europa.eu/RegData/etudes/IDAN/2025/773718/ECTI_IDA(2025)773718_EN.pdf

European Central Bank. (2024). Supervisory priorities 2025–27. ECB Banking Supervision. https://www.bankingsupervision.europa.eu/framework/priorities/html/ssm.supervisory_priorities202412~6f69ad032f.en.html

European Central Bank (ECB). (n.d.). Key ECB interest rates. Available at: https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.en.html

European Central Bank (ECB). (2024). The Eurosystem's operational framework. https://www.ecb.europa.eu/press/key/date/2024/html/ecb.sp240314~8b609de772.en.html

European Central Bank (ECB). (n.d.). Inflation. ECB Data Portal. Available at: https://data.ecb.europa.eu/key-figures/inflation-and-other-prices/inflation

European Central Bank (ECB). (n.d.). FM.M.U2.EUR.RT.MM.EURIBOR6MD_.HSTA. ECB Data Portal. Available at:
https://data.ecb.europa.eu/data/datasets/FM/FM.M.U2.EUR.RT.MM.EURIBOR6MD_.HSTA

European Central Bank (ECB). (n.d.). FM.D.U2.EUR.4F.KR.DFR.LEV. ECB Data Portal. Available at: https://data.ecb.europa.eu/data/datasets/FM/FM.D.U2.EUR.4F.KR.DFR.LEV

European Central Bank (ECB). (n.d.). FM.D.U2.EUR.4F.KR.MRR_RT.LEV. ECB Data Portal. Available at:
https://data.ecb.europa.eu/data/datasets/FM/FM.D.U2.EUR.4F.KR.MRR_RT.LEV

European Central Bank (ECB). (n.d.). FM.M.U2.EUR.RT.MM.EURIBOR1MD_.HSTA. ECB Data Portal. Available at: https://data.ecb.europa.eu/data/datasets/FM/FM.M.U2.EUR.RT.MM.EURIBOR1MD_.HSTA

European Central Bank (ECB). (n.d.). FM.M.U2.EUR.RT.MM.EURIBOR3MD_.HSTA. ECB Data Portal. Available at: https://data.ecb.europa.eu/data/datasets/FM/FM.M.U2.EUR.RT.MM.EURIBOR3MD_.HSTA

European Money Markets Institute (EMMI). (n.d.). Euribor® methodology. Available at https://www.emmi-benchmarks.eu/benchmarks/euribor/methodology/

European Securities and Markets Authority (ESMA). (n.d.). Governance structure. Available at https://www.esma.europa.eu/about-esma/governance-structure

Euribor Rates. (б.д.). Historical Euribor rates. Available at: https://euriborrates.com/historical-euribor

Gómez Yubero, M. J., Ollero García-Agulló, I., & Palomero Aguilar, M. (2026). Three decades of Euribor: Viability and prospects for future development. Occasional Paper. Comisión Nacional del Mercado de Valores (CNMV)

Iommetti, R. (2025). ECB Interest Rate Forecasting under High Inflation Pressures. SSRN Electronic Journal

Juotasniemi, H. (2026). Geopolitical risk and Eurozone interest rates: An event study of Euribor rates in response to COVID-19 and the Russia-Ukraine war (Bachelor's thesis, Aalto University School of Business)

Lleshaj, L., & Kripa, D. (2021). Modelling Euribor rates volatility: Application of the GARCH model. Universal Journal of Accounting and Finance, 9(6), 1332–1341

Ralinska, E. (2022). The End of the Negative Interest Rates. Finance, Accounting and Business Analysis (FABA), 4(2), 118-128

Vilmunen, O. (2024). Studying the factors that determine the interest rates of Germany, France and Italy (Bachelor's thesis, Lappeenranta-Lahti University of Technology LUT)

National Bank of Serbia. (n.d.). Кредити. Твој новац. Available at: https://tvojnovac.nbs.rs/finansijski_proizvodi/krediti