

EFFECTS OF EUROZONE AND SCHENGEN AREA ACCESSION ON REAL ESTATE PRICES

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Abstract

The real estate sector plays an important role in economic cycles and macroeconomic stability, as shown by various studies that establish a link between real estate prices and economic activity. While the traditional determinants of real estate prices have been extensively studied, the impact of institutional factors such as Eurozone membership and Schengen accession has not yet been sufficiently researched. Monetary integration promotes economic growth by boosting trade, investment and financial integration, while lower interest rates improve access to credit, which drives demand for real estate. Similarly, Schengen accession increases labor mobility, cross-border economic activity and the acquisition of real estate, further fueling demand for housing. Therefore, this study aims to examine the role that these institutional changes have on the real estate markets in the EU member states. A panel data analysis for the period from 2000 to 2023 using a fixed effects model confirms that joining the Eurozone has a statistically significant impact on house prices, primarily due to lower interest rates and economic growth. Schengen membership also contributes to rising real estate prices as it increases labor mobility and tourism-driven demand. The study findings suggest that policy makers should address housing affordability issues through targeted measures, including fiscal and regulatory interventions, rather than relying solely on monetary policy.

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INTRODUCTION

The real estate sector plays an important role in economic cycles and macroeconomic stability, as numerous studies in various countries have shown. Studies by Jacobsen and Naug (2005) in Norway and Valadez (2011) in the United States show the strong correlation between real estate prices, economic activity and real GDP and illustrate that fluctuations in the real estate sector can have far-reaching consequences, including triggering an economic recession. Burnside, Eichenbaum and Rebelo (2016) also emphasize the cyclical nature of real estate markets and show that there are long boom and bust cycles in 25 OECD countries, lasting around 5.5 years and busts around 5.38 years, with prices rising by a median of 44.7% during booms and falling by 28.5% during busts. The 2008 financial crisis in Spain, as analyzed by Ortega and Peñalosa (2012), is an example of how pre-existing vulnerabilities in the real estate market can be exacerbated by monetary integration, leading to significant macroeconomic imbalances and cyclical effects, exacerbating the severity of the 2008 crisis. The subsequent recession had a profound negative impact on the real estate sector, leading to significant financial losses and a decline in economic activity, necessitating the implementation of well-calibrated pro-cyclical policies. Spain's membership in the Economic and Monetary Union also limited the scope of economic policy instruments available, thus shaping the nature of the crisis response and adjustment mechanisms. Similarly, Estonia experienced a speculative bubble influenced by foreign capital inflows and credit expansion (Coconcelli & Medda, 2013). These studies show the importance of monitoring the evolution of real estate prices and their determinants, as the real estate sector plays a role both in triggering economic crises and in facilitating the subsequent recovery processes.

In addition to the commonly analyzed determinants of real estate prices, such as GDP (Goodhart & Hofmann, 2008; Adams & Füss, 2010; van de Minne, 2016; Cohen & Karpaviciute, 2017; Tupenaitė et al., 2017; Xu, 2017; Sivitanides, 2018), interest rates (Jacobsen & Naug, 2005; Abelson, 2005; Girouard et al., 2006; McQuinn & O'Reilly, 2008; Case, 2008; Levin & Pryce, 2009; Andrews, 2010; Sutton et al., 2017; Geng, 2018; Hinch et al., 2019); inflation (Anari & Kolar, 2002; Abelson et al., 2005; Goodhart & Hofmann, 2008; Kuang & Liu, 2015; Cohen & Karpaviciute, 2017), household income (Jacobsen & Naug, 2005; Girouard et al., 2006; McQuinn & O'Reilly, 2008; Andrews, 2010; Geng, 2018; Sivitanides, 2018), demographic changes and migration (Girouard et al., 2006; McDonald, 2013; Burnside et al., 2016; van de Minne, 2016; Geng, 2018),

employment (Jacobsen & Naug, 2005; Andrews, 2010; Cohen & Karpaviciute, 2017; Irandoust, 2019), or housing supply (Himmelberg et al., 2005; Girouard et al., 2006; Caldera Sánchez & Johansson, 2011; van de Minne, 2016; Tupenaitė et al., 2017; Geng, 2018; Pinayman & Kogid, 2020), the impact of institutional factors, particularly accession to the Eurozone and the Schengen Area, have not been comprehensively investigated. Nonetheless, the introduction of the euro and membership in the Schengen Area has a potentially significant impact on real estate markets and thus on the broader economic cycles in European countries.

Monetary integration can have a significant impact on macroeconomic indicators such as GDP, interest rates, inflation and living standards, which in turn influence the real estate market. Research suggests that the introduction of the euro has led to greater convergence of property prices in the member states, with a clear convergence towards German price levels. This trend went beyond the Eurozone and also affected non-member states (Tsai, 2018). However, there is conflicting evidence that questions the extent of this convergence and suggests that factors beyond the single currency may play a greater role in shaping housing market dynamics (Miles, 2020).

In addition, the abolition of internal border controls through the Schengen Agreement facilitates the free movement of people and the creation of a single European labor market. This increased mobility of labor expands economic opportunities and can boost trade and economic growth. The resulting cross-border labor mobility and economic growth have a positive impact on consumer confidence and exert upward pressure on real estate prices. In addition, the Schengen Agreement facilitates trade, benefiting both businesses and consumers, while travel facilitation has a positive impact on the tourism sector and contributes to local economic growth (Davis & Gift, 2014). Schengen accession increases the ability to purchase property in other member states, particularly those with lower property prices, which can lead to increased demand for housing. As the supply of housing cannot immediately adapt to short-term fluctuations, this leads to an increase in property prices. Given the potential macroeconomic impact of Eurozone membership and Schengen accession, this study aims to empirically assess their impact on the real estate markets in EU member states.

The rest of this article is structured as follows. After the introduction, the literature review summarizes previous research. The next section describes the data and methodology. The results section presents the empirical findings, followed by a conclusion that outlines key insights and policy implications.

LITERATURE REVIEW ON THE DETERMINANTS OF REAL ESTATE PRICES

The dynamics of real estate prices in the European Union are influenced by fundamental market mechanisms and macroeconomic factors. The European Central Bank [ECB] (2003) identifies six key determinants of house prices in the EU: household income, interest rates, demographics, construction rates, financial market structure, and government policy. In addition to their specific characteristics, house prices are largely influenced by the economic situation, economic indicators and the dynamics of supply and demand on the global and local real estate markets. Adams and Füss (2010) conducted a panel cointegration analysis for 15 OECD countries over 30 years and found that a 1% increase in economic activity leads to a 0.6% increase in real estate prices in the long run, while construction costs and long-term interest rates have average long-term effects of 0.6% and -0.3% respectively. Research also suggests that housing prices exhibit downward stickiness and adjust to equilibrium more slowly than previously thought, as homeowners are often reluctant to sell below certain price thresholds. Pinayman and Kogid (2020) found that macroeconomic variables significantly affect Malaysian house prices, with interest rates, housing supply and inflation leading to price declines, while GDP growth and currency appreciation drive prices upwards.

Goodhart and Hofmann (2008) showed a significant correlation between house prices and macroeconomic variables, particularly GDP changes, in 17 industrialized countries from 1970 to 2006. They concluded that positive GDP shocks increase income, employment, consumer confidence and spending, thereby driving up demand for real estate and prices. GDP growth also increases wealth and the availability of credit, which stimulates real estate investment (Xu, 2017). However, Borowiecki (2009) found that real GDP had little short-term impact on Swiss house prices between 1991 and 2007, which contrasts with findings from other countries. Furthermore, economic growth increases the wealth and borrowing capacity of residents, which stimulates real estate investment and pushes up house prices. This is because people are more motivated to improve their living conditions and invest in larger or additional properties. This relationship between rising incomes, GDP growth and housing demand has been studied in different countries and time periods. Studies by Xu (2017), Abelson et al. (2005) and Andrews (2010) show a strong positive correlation between income levels and property prices, with rising incomes significantly increasing demand for housing and prices.

Interest rates are an important factor in housing affordability, investment behavior and market dynamics. Lower interest rates reduce borrowing costs, increase affordability and encourage homeownership, while higher interest rates have the opposite effect by increasing mortgage costs, reducing demand for homeownership and leading to downward pressure on housing prices. In addition, an increase in interest rates may lead to expectations of falling house prices, causing potential buyers to postpone purchases (Jacobsen & Naug, 2005). In addition, increased interest rates discourage real estate investment as alternative financial instruments become more attractive. Studies by McQuinn and O'Reilly (2008), Andrews (2010) as well as Levin and Pryce (2009) highlight the significant impact of falling long-term interest rates on house price appreciation. Similarly, Case (2008) highlights the increased sensitivity of housing markets to monetary policy shocks, noting that interest rate cuts often lead to increased home purchases and price increases, while Gupta et al. (2012) highlights the liberalization of financial markets, which has expanded access to credit for financially weaker individuals and firms, making the housing market more sensitive to monetary policy shocks. The global impact of interest rates, particularly US interest rates, on housing markets has been noted by Sutton et al. (2017), particularly in economies with underdeveloped mortgage securitization systems. Tupenaitė et al. (2017) also emphasize the importance of financial conditions, including interest rates and mortgage availability, as determinants of housing price movements, while Geng (2008) reports that real housing prices exhibit moderate sensitivity to interest rates, with semi-elasticities reaching up to 6%. However, Xu (2017) highlights that the impact of interest rates on house prices could remain limited if real estate investments continue to offer high expected returns.

Inflation, as measured by the consumer price index (CPI), has a significant impact on property prices through various mechanisms, including a reduction in purchasing power and an increase in construction costs. However, if inflation remains persistently high, central banks may respond by raising interest rates to curb an overheating economy, which can lead to a slowdown in the real estate market. Goodhart and Hofmann (2008) find that the relationship between CPI shocks and real estate prices has evolved over time, with weaker responses in more recent periods, reflecting changes in monetary policy and economic interactions. Empirical research by Anari and Kolari (2002) found a long-term cointegrated relationship between house prices and inflation, suggesting that house prices increase disproportionately in response to inflation, supporting the notion that real estate is an effective hedge against inflation. Abelson et al. (2005)

highlight the long-term impact of unemployment on buyers' purchasing power and its negative correlation with housing prices. Andrews (2010) notes that a decline in structural unemployment is associated with higher house prices. This reflects improved economic stability and greater job security, which encourages households to take on greater financial commitments, leading to an increase in house prices. Irandoust (2019) examines the causal dynamics between unemployment and housing prices in eight major European countries and finds different relationships ranging from unidirectional causality to bidirectional causality and in some cases no significant causal relationship. These findings underscore the complex interplay between macroeconomic factors and housing markets and highlight the need for nuanced policy approaches that take account of changing economic conditions. It is important to note that determinants vary over time and reflect the economic conditions of different eras, meaning that their influence on housing prices may change over time (van de Minne, 2016), particularly in the context of institutional change.

Adoption of the euro is expected to improve a country's long-term economic prospects by promoting greater macroeconomic stability, lowering inflation rates, reducing borrowing costs and mitigating exchange rate volatility. Joining the Eurozone is expected to accelerate economic growth by lowering transaction costs, expanding investment opportunities and enabling deeper trade and financial integration with other Eurozone members. This integration can attract higher levels of foreign direct investment (FDI), as the stability and predictability associated with Eurozone membership makes a country more attractive to investors, facilitating capital inflows, creating jobs and accelerating economic development (Cvitanović & Širanović, 2021). Compliance with the Eurozone convergence criteria may also improve a country's competitiveness and overall economic performance (Čehulić & Hrbić, 2019). Lower interest rates can stimulate lending and thus increase consumer spending and investment, which contributes to economic growth, but also carries the risk of increasing inflationary pressures (Nowaczyk & Hernik, 2020). Moderate inflation is often associated with economic growth and is generally considered a sign of a healthy economy where businesses are investing and consumer spending is increasing (Cvitanović & Širanović, 2021). The resulting improvements in macroeconomic indicators, such as GDP growth, employment levels and trade balance, are likely to contribute to rising real estate prices as investors increasingly perceive property as an attractive investment opportunity. Excessive optimism about real estate values may lead to inflated expectations, potentially fueling speculative investments that could further drive up property prices. Empirical evidence from the

Baltic states suggests that the introduction of the euro can lead to an economic upturn and positive GDP growth rates. This suggests that the long-term effects of euro integration may foster sustainable economic growth, ultimately leading to higher income levels and rising real estate prices (Dandashly & Verdun, 2021).

Integration into the Eurozone and the Schengen Area has a significant impact on the tourism sector and the dynamics of the real estate market, particularly in coastal regions. This integration increases property demand, market activity and local prosperity through higher rental income (Družić et al., 2007). The Schengen Agreement contributes to market stability by promoting economic growth, reducing trade barriers and encouraging cross-border investment. The abolition of internal border controls facilitates freedom of movement, stimulates economic interactions and improves logistical efficiency. Increasing tourism and labor mobility increase the demand for housing, especially in urban centers and border regions, which puts upward pressure on property prices. Schengen also allows foreign investors to participate more freely in real estate transactions, further fueling market activity. Finally, the freedom to travel may also impact rental markets as more people look for short-term rentals or vacation properties in popular destinations (Böhmer et al., 2016). Davis and Gift (2014) highlight the positive impact of Schengen on labor market flexibility, which promotes economic integration by addressing labor shortages. This increased labor mobility promotes economic growth but also increases the demand for housing. Parenti and Tealdi (2019) found that the likelihood of cross-border commuting increased by around three percentage points overall, with the effect being more pronounced in regions bordering Switzerland. If cross-border commuting increases, the demand for housing in border regions may rise, putting upward pressure on property prices. Felbermeyer et al. (2017) report that Schengen has increased trade, particularly in services, by an average of 2.81%, particularly in the service sector and in peripheral economies.

The literature suggests that membership in the Eurozone and the Schengen Area positively influences economic performance through lower interest rates, higher income levels, higher investment, better employment rates, easier free movement, and greater trade integration. These factors increase the standard of living and drive demand for real estate, which is likely to lead to rising property prices if the supply of housing does not increase proportionally.

METHODOLOGY AND DATA

A static panel data approach was used to conduct the econometric analysis. The estimation procedure was based on model (1), which served as the basic framework for the subsequent analytical process.

$$Y_{it} = c + \sum_{k=1}^K \beta_k X_{it}^k + \varepsilon_{it} \quad (1)$$

$$\varepsilon_{it} = z_i + u_{it} \quad (2)$$

Where:

Y_{it} represents the real estate price index in a country i at time t , with $i = 1 \dots N$; $t = 1 \dots T$.

X_{it} are k independent variables including consumer price index (CPI), GDP p/c, long-term interest rate, employment, euro dummy and Schengen dummy. ε_{it} represents the disturbance term, where z_i is the unobserved specific effect, and u_{it} is the idiosyncratic error. The model is a one-way error component regression model where $z_i \sim \text{IIN}(0, \sigma_z^2)$ and independent of $u_{it} \sim \text{IIN}(0, \sigma_u^2)$.

The empirical analysis in this study is based on secondary data sources. The data on house prices come from Eurostat's house price statistics, the data on gross domestic product and interest rates come from Eurostat, while the data on unemployment and the consumer price index come from the World Bank. The sample of the study comprises 27 member states of the European Union: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France,

Greece, Croatia, Ireland, Italy, Latvia, Lithuania, Luxembourg, Hungary, Malta, Germany, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden. The time frame of the analysis covers the period from 2000 to 2023. The statistical analyses are carried out using STATA 15.

RESULTS AND DISCUSSION

The descriptive statistics presented in Table 1 provide a comprehensive overview of the central tendencies, dispersion and range of the variables used in this study. The real estate price index has a mean value of 105.987 with a standard deviation of 33.53919, indicating relatively low variability around the mean. In contrast, the consumer price index (CPI) has a mean value of 3.029321 and a standard deviation of 3.768133, which indicates a considerable variability of inflation rates within the sample. The GDP per capita and interest rate variables also exhibit relatively high variability, which indicates considerable economic and monetary policy differences within the data set. The unemployment variable, on the other hand, shows comparatively moderate variability, indicating more consistent labor market conditions within the sample.

Table 1: Descriptive statistics

Variable	Observation	Mean	Standard deviation	Min	Max
Real estate price index	611	105.9867000	33.5391900	29.33	268.81
Consumer price index	648	3.0293210	3.7681330	-4.50	45.60
GDP p/c	647	24920.1100000	16856.1800000	2990.00	88120.00
Interest rate	606	3.4149010	2.4077270	-0.62	21.10
Unemployment	648	8.3360620	4.2720090	1.81	27.70
Eurozone dummy	637	0.6028257	0.4896972	0.00	1.00
Schengen dummy	641	0.7238690	0.4474316	0.00	1.00

Source: Author's own work.

In the subsequent phase of the study, possible multicollinearity between the independent variables was investigated. The absence of multicollinearity allows a more precise estimation of the individual effects of each independent variable on the dependent variable, without the confounding influence of high correlations between variables. This assessment was performed using a matrix of Pearson correlation coefficients. Multicollinearity, when present, can significantly bias the results of regression analysis by inflating the variance

of the estimated coefficients, making them unstable and difficult to interpret accurately. Table 2 shows the Pearson correlation coefficients for the variables used in this study. The results show that there is no multicollinearity, as evidenced by correlation coefficients that are consistently below the critical threshold of 0.7 (Table 2). This finding indicates that there are no strong correlations between the independent variables, which ensures the reliability and interpretability of the subsequent analyses.

Table 2: Correlation Matrix

	Consumer price index	GDP p/c	Interest rate	Unemployment	Eurozone dummy	Schengen dummy
Consumer price index	1.0000					
GDP p/c	-0.1996*	1.0000				
Interest rate	0.2980*	-0.3438*	1.0000			
Unemployment	-0.1588*	-0.3347*	0.3250*	1.0000		
Eurozone dummy	-0.2153*	0.4058*	-0.2699*	-0.2300	1.0000	
Schengen dummy	-0.1700*	0.3227*	-0.2644*	-0.1384*	0.4706*	1.0000

* $p < 10\%$

Source: Author's own work.

Based on the characteristics of the data set, a panel data analysis is performed. To determine the most appropriate panel model for our analysis, we conducted a series of diagnostic tests, including the F-test, Lagrange's multiplier test for random effects, and Hausman's test. These assessments were instrumental in deciding which model was most appropriate for our data set (Table 3). The Breusch-Pagan-Lagrange multiplier (LM) test, which assesses the variance of individual effects, indicates that the random effects model is more appropriate than the pooled ordinary least squares (OLS) model. However, the results of the Hausman specification test comparing the fixed-effects model with the random-effects model suggest that the fixed-effects model is a better fit. In addition, the F-test comparing the fixed-effects model with the pooled OLS model also confirms the superiority of the fixed-effects model. The fixed effects approach accounts for unobserved heterogeneity that could otherwise lead to bias in the estimates. This methodology allows control for time-invariant individual characteristics and thus mitigates potential biases in the estimation of other variables.

The empirical results presented in Table 3 show that joining the Eurozone has a statistically significant impact on house prices in the EU-27 countries in the period 2000–2023, as confirmed by the estimated fixed

effect on real estate prices works through several mechanisms, one of the main channels being the reduction in interest rates. Lower interest rates reduce borrowing costs, improve access to credit and thus increase demand for real estate. The model results show that long-term interest rates have a negative and statistically significant effect on house prices, which is in line with theoretical expectations. These results are consistent with previous research, including studies by Girouard et al. (2006), McQuinn and O'Reilly (2008), Case (2008), Levin and Pryce (2009), Sutton et al. (2017), Tupenaitė et al. (2017), as well as Hinch et al. (2019), all of which emphasize the significant impact of interest rates on property prices.

In addition to interest rate dynamics, joining the Eurozone also influences property prices by promoting economic growth, which is reflected in the improvement in living standards as measured by GDP per capita. The importance of GDP as a determinant of real estate prices has been well documented in previous studies (Goodhart & Hofmann, 2008; Adams & Füss, 2010; Cohen & Karpaviciute, 2017; Tupenaitė et al., 2017; Xu, 2017). The results also suggest that the long-term effects of euro integration contribute to continued economic expansion, which ultimately leads to higher real estate prices, as confirmed by Dandashly and Verdun (2021).

Table 3: Parameter Estimates of Panel Model

	Fixed effect (FE)	Random effect (RE)	OLS
Consumer price index	4.864000*** (0.386000)	6.181000*** (0.404000)	6.400000*** (0.428000)
GDP p/c	0.002550*** (0.000296)	-0.000173 (0.000131)	-0.0003370*** (0.0000767)
Interest rate	-3.854000*** (0.524000)	-5.847000*** (0.529000)	-5.1730000*** (0.551000)
Unemployment	-0.166000 (0.350000)	-0.116000 (0.364000)	0.2290000 (0.327000)
Eurozone dummy	25.750000*** (4.616000)	17.670000*** (3.849000)	13.8800000*** (2.668000)
Schengen dummy	15.660000*** (4.767000)	9.386000** (4.051000)	-1.7960000 (2.866000)
_const	11.890000 (9.276000)	98.070000*** (6.025000)	107.000000*** (4.562000)
N	584	584	584
F-test	15.300000***		15.300000***
LM test	216.790000**		216.790000**
Hausman test	156.540000***		156.540000***

*, **, *** Statistically significant at the; 10%, 5%, 1% level respectively

Robust standard errors are between parentheses

Source: Author's own work.

Furthermore, the results provide empirical support for the assumption that joining the Schengen Area has a positive and statistically significant effect on real estate prices. By abolishing internal border controls, the Schengen Agreement facilitates the free movement of people between member states and thus promotes labor mobility and trade activities. This increased mobility leads to a greater demand for housing, particularly in border regions and large urban centers where labor market integration is more pronounced. The results are consistent with the theoretical assumptions of Davis and Gift (2014), which emphasize the economic benefits of improved labor market accessibility. In addition, Schengen accession promotes tourism, which further drives the increase in real estate prices, particularly in the major tourist centers. The positive correlation between Schengen membership and tourism growth is documented by Böhmer et al. (2016), who confirm that the agreement promotes the expansion of tourism by facilitating cross-border traffic and trade. Increasing tourism, in turn, stimulates demand for short-term rental accommodation and vacation properties, leading to rising property values, an idea also supported by Družić et al. (2007). Consequently, the real estate sector becomes an attractive investment that stimulates further capital inflows. If the supply of housing remains limited due to regulatory restrictions, land scarcity, high construction costs, and lengthy administrative procedures, real estate prices may rise significantly in response to growing demand. Although previous studies, such as those by Andrews (2010) and Irandoust (2019), highlight the significant role of labor market conditions in shaping property prices, the results of this study show that unemployment does not exert a statistically significant impact on property values. This supports the assumption that the determinants of real estate are time-varying and that their relative influence on property prices evolves over time (van de Minne, 2016).

Finally, the persistent downward price rigidity in the housing market needs to be taken into account, as housing prices tend to exhibit "sticky downward" behavior (Case, 2008; Adams & Füss, 2010). This suggests that the institutional changes analyzed in this study have long-term implications for housing price trends and require a forward-looking policy approach. Moreover, if the expected returns on real estate investments exceed the additional borrowing costs associated with higher interest rates, demand may react relatively inelastically to interest rate fluctuations. Therefore, as the interest rates might be a less effective tool to regulate house prices, relying on monetary policy alone may be insufficient, so complementary macroprudential measures, as suggested by Cohen and Karpaviciute (2017), need to be implemented together with fiscal and regulatory interventions to ensure a more comprehensive and effective policy framework.

CONCLUSIONS

Fluctuations in the real estate market can have far-reaching macroeconomic consequences due to its role as an important component of economic activity and the business cycle. The real estate market's significance is further emphasized by its ability to affect household wealth, consumer spending, and construction sector activity, while also influencing broader economic indicators such as GDP, as demonstrated by various studies.

Eurozone membership fosters economic growth by facilitating trade, investment, and financial integration. Additionally, the lower interest rates associated with euro adoption improve credit accessibility, thereby stimulating real estate demand. Similarly, accession to the Schengen Area enhances labor mobility and cross-border economic activity, leading to increased housing demand, particularly in urban centers and economically attractive regions. This surge in demand is further reinforced by overall improvements in living standards resulting from these institutional changes. However, given the inelastic nature of real estate supply, constrained by regulatory frameworks, land scarcity, high construction costs, and lengthy administrative procedures, the upward pressure on property prices induced by Eurozone and Schengen membership may become more pronounced. Therefore, this study aimed to examine the impact of Eurozone and Schengen accession on real estate prices in member states.

Through a panel data analysis applying the fixed effect model, the findings indicate that Eurozone accession has a statistically significant effect on house prices in EU-27 countries from 2000 to 2023. This influence is primarily driven by reduced interest rates and economic expansion, as reflected in higher GDP per capita. The results confirm that long-term interest rates exert a negative effect on house prices, consistent with theoretical expectations and previous empirical research. Additionally, Eurozone membership contributes to sustained economic growth, further fueling increases in real estate prices. Schengen Area accession also demonstrates a positive effect on real estate prices by promoting labor mobility and labor market integration, which drive demand for housing. Furthermore, the agreement's impact on tourism significantly contributes to rising property values, particularly in major tourist destinations. Compared to prior studies, the findings underscore the evolving nature of real estate determinants over time. Namely, while previous research has established a strong link between labor market conditions and real estate prices, the study finds that unemployment does not exert a statistically significant impact on property values, emphasizing the time-variant nature of real estate determinants. Finally, given that housing prices tend to exhibit downward rigidity, policymakers must consider the long-term implications of researched institutional changes.

The findings suggest important implications for policy makers who should address the housing affordability challenges arising from joining the Eurozone and the Schengen Area with targeted measures, including affordable housing programs and investment incentives. As relying on monetary policy alone on housing prices may be insufficient, complementary fiscal and regulatory interventions are needed. To ensure long-term market stability, sustainable urban development strategies and regulations should be a priority, especially in tourist and economically attractive areas where the pressure on real estate prices is most pronounced.

Future research on the effects of Eurozone and Schengen Area membership on property prices should take a regional perspective, with a particular focus on border areas and tourist regions where free movement may have a significant economic and social impact. As property prices are influenced by a number of factors, including demographic trends, future studies should examine how the influx of workers from other Member states affects property demand in specific regions, while also assessing the impact of emigration on property values in areas with high population outflows.

REFERENCES

- Abelson, P., Joyeux, R., Milunovich, G. & Chung, D. (2005). Explaining house prices in Australia: 1970-2003. *The Economic Record*, 81(255), 96-103. <https://dx.doi.org/10.1111/j.1475-4932.2005.00243.x>.
- Adams, Z. & Füss, R. (2010). Macroeconomic determinants of international housing markets. *Journal of Housing Economics*, 19(1), 38-50. <http://dx.doi.org/10.1016/j.jhe.2009.10.00>.
- Anari, A. & Kolari, J. (2002). House prices and inflation. *Real Estate Economics*, 30(1), 67-84. <https://dx.doi.org/10.1111/1540-6229.00030>.
- Andrews, D. (2010). Real House Prices in OECD Countries: The Role of Demand Shocks and Structural and Policy Factors. OECD Economics Department Working Papers No. 831, OECD iLibrary, Paris. <https://dx.doi.org/10.1787/5km33bqzhbzr-en>.
- Borowiecki, K.J. (2009). The determinants of house prices and construction: An empirical investigation of the Swiss housing economy. *International Real Estate Review*, Global Social Science Institute, 12(3), 193-220.
- Böhmer, M., Limbers, J., Pivac, A. & Weinelt, H. (2016). Departure from the Schengen Agreement: Macroeconomic impacts on Germany and the countries of the European Union. Bertelsmann Stiftung, Gütersloh.
- Burnside, C., Eichenbaum, M. & Rebelo, S. (2016). Understanding Booms and Busts in Housing Markets. *Journal of Political Economy* 124(4), 1088-1147. <https://dx.doi.org/10.1086/686732>.
- Caldera Sánchez, A. & Johansson, Å. (2011). The Price Responsiveness of Housing Supply in OECD Countries. OECD Economics Department Working Papers, No. 837. OECD, Paris. <https://dx.doi.org/10.1787/5kgk9qhrnn33-en>.
- Case, K.E. (2008). The Central Role of Home Prices in the Current Financial Crisis: How Will the Market Clear? *Brookings Papers on Economic Activity*, 161-193. <http://www.jstor.org/stable/27720398>.
- Cocconcelli, L. & Medda, F.R. (2013). Boom and bust in the Estonian real estate market and the role of land tax as a buffer. *Land Use Policy*, 30(1), 392-400. <https://dx.doi.org/10.1016/j.landusepol.2012.04.007>.
- Cohen, V. & Karpaviciute, L. (2017). The analysis of the determinants of housing prices. *Independent Journal of Management & Production*, 8(1), 49-63. <https://dx.doi.org/10.14807/ijmp.v8i1.521>.
- Cvitanović, V. & Širanović, P. (2021). Proces zamjene hrvatske kune eurom i očekivani utjecaj na gospodarska kretanja. *Suvremene Teme*, 12(1), 67-87. <https://dx.doi.org/10.46917/st.12.1.4>.
- Čehulić, Z. & Hrbić, R. (2019). The impact of adopting the euro on the Croatian economy: What can be learned from other countries? *Notitia - Časopis za Ekonomske, Poslovne i Društvene Teme*, 5(1), 73-89. <https://dx.doi.org/10.32676/n.5.1.7>.
- Dandashly, A. & Verdun, A. (2021). Euro adoption policies in the second decade - the remarkable cases of the Baltic States. *Economic and Monetary Union at Twenty*, 1st Edition. Routledge, London.

- Davis, D. & Gift, T. (2014). The positive effects of the Schengen Agreement on European trade. *World Economy*, 11, 1541-1557. <https://dx.doi.org/10.1111/twec.12158>.
- Družić, I., Čavrak, V. & Tica, J. (2007). Tourism, welfare and real estate market in small open economy: the case of Croatia. *EFZG Working Paper Series*, 7, 1-12.
- European Central Bank. (2003). Structural factors in the EU housing markets. Retrieved from <https://www.ecb.europa.eu/pub/pdf/other/euhousingmarketsen.pdf> (Accessed: 11.03.2025).
- Felbermayr, G., Gröschl, J. & Steinwachs, T. (2017). The Trade Effects of Border Controls: Evidence from the European Schengen. *Journal of Common Market Studies*, 56(2), 335-351. <https://dx.doi.org/10.1111/jcms.12603>.
- Geng, N. (2018). Fundamental Drivers of House Prices in Advanced Economies (IMF Working Paper No. 18164). International Monetary Fund, Washington. Retrieved from <https://www.imf.org/en/Publications/WP/Issues/2018/07/13/Fundamental-Drivers-of-House-Prices-in-Advanced-Economies-46053> (Accessed: 11.03.2025).
- Girouard, N., Kennedy, M., van den Noord, P. & André, C. (2006). Recent House Price Developments: The Role of Fundamentals. *OECD Economics Department Working Papers*, No. 475. OECD Publishing, Paris. <http://dx.doi.org/10.1787/864035447847>.
- Goodhart, C. & Hofmann, B. (2008). House prices, money, credit and the macroeconomy. *ECB Working Paper Series No. 888*. European Central Bank, Frankfurt am Main. Retrieved from: <http://www.ecb.europa.eu> (Accessed: 11.03.2025).
- Gupta, R., Jurgilas, M., Miller, S.M. & van Wyk, D. (2012). Financial Market Liberalization, Monetary Policy, and Housing Sector Dynamics. *International Business & Economics Research Journal*, 11(1), 77-82.
- Himmelberg, C., Mayer, C. & Sinai, T. (2005). Assessing High House Prices: Bubbles, Fundamentals and Misperceptions. *Journal of Economic Perspectives*, 19(4), 67-92. <https://dx.doi.org/10.1257/089533005775196769>.
- Hinch, M., Berry, J., McGreal, W. & Grissom, T. (2019). LIBOR, base rate spreads and the Australian housing market. *Pacific Rim Property Research Journal*, 25(1), 73-99. <https://dx.doi.org/10.1080/14445921.2019.1610594>.
- Irlandoust, M. (2019). House prices and unemployment: An empirical analysis of causality. *International Journal of Housing Markets and Analysis*, 12(1), 148-164. <https://dx.doi.org/10.1108/IJHMA-03-2018-0021>.
- Jacobsen, D. H. & Naug, B. E. (2005). What drives house prices? *Economic Bulletin*, 76(1), 29-40.
- Kuang, Y. & Liu, P. (2015). Inflation and House Prices: Theory and Evidence from 35 Major Cities in China. *International Real Estate Review*, 18(1), 217-240.
- Levin, E.J. & Pryce, G.B.J. (2009). What Determines the Price Elasticity of House Supply? Real Interest Rate Effects and Cyclical Asymmetries. *Housing Studies*, 24(6), 713-736. <https://dx.doi.org/10.1080/02673030903215860>.
- McDonald, C. (2013). Migration and the housing market. *Reserve Bank of New Zealand Analytical Note Series AN2013/10*. Retrieved from: <https://www.rbnz.govt.nz/-/media/project/sites/rbnz/files/publications/analytical-notes/2013/an2013-10.pdf> (Accessed: 11.03.2025).
- McQuinn, K. & O'Reilly, G. (2008). Assessing the role of income and interest rates in determining house prices. *Economic Modelling*, 25(3), 377-390. <https://dx.doi.org/10.1016/j.econmod.2007.06.010>.
- Miles, W. (2020). House price convergence in the euro zone: A pairwise approach. *Economic Systems*, 44(3), 20-35. <https://dx.doi.org/10.1016/j.ecosys.2020.100782>.
- Nowaczyk, P. & Hernik, J. (2020). Adopting the Euro will cause an increase in prices: A study on inflationary processes in Euro area member states. *European Research Studies Journal*, 23(4), 377-403. <https://dx.doi.org/10.35808/ersj/1689>.

- Ortega, E. & Peñalosa, J. (2012). The Spanish Economic Crisis: Key Factors and Growth Challenges in the Euro Area. Banco de España, Documentos Ocasionales, N.º 1201. <https://dx.doi.org/10.2139/ssrn.2016027>.
- Parenti, A. & Tealdi, C. (2019). Does the implementation of the Schengen Agreement boost cross-border commuting? Evidence from Switzerland (IZA DP No. 12754). IZA Institute of Labor Economics. Retrieved from: <https://www.iza.org/publications/dp/12754/does-the-implementation-of-the-schengen-agreement-boost-cross-border-commuting-evidence-from-switzerland> (Accessed: 11.03.2025).
- Pinayman, S. & Kogid, M. (2020). Macroeconomic determinants of house prices in Malaysia. *Jurnal Ekonomi Malaysia*, 54(1), 153-165. <http://dx.doi.org/10.17576/JEM-2020-5401-11>.
- Sivitanides, P.S. (2018). Macroeconomic drivers of London house prices. *Journal of Property Investment & Finance*, 36(6), 539-551. <https://dx.doi.org/10.1108/JPIF-02-2018-0012>.
- Sutton, G.D., Mihaljek, D. & Subelyte, A. (2017). Interest rates and house prices in the United States and around the world (BIS Working Papers No. 665). Bank for International Settlements, Basel. <https://www.bis.org/publ/work665.htm> (Accessed: 11.03.2025).
- Tsai, I.-C. (2018). House price convergence in eurozone and non-eurozone countries. *Economic Systems*, 42(3), 269-281. <https://dx.doi.org/10.1016/j.ecosys.2018.01.001>.
- Tupenaite, L., Kanapeckiene, L. & Naimaviciene, J. (2017). Determinants of house price fluctuations: Case study of Lithuania. *Procedia Engineering*, 172, 1169-1175. <https://dx.doi.org/10.1016/j.proeng.2017.02.136>.
- Valadez, R.M. (2011). The housing bubble and the GDP: A correlation perspective. *Journal of Case Research in Business and Economics*, 3, 1-18.
- van de Minne, A.M. (2015). House price dynamics: The role of credit, demographics and depreciation. [Thesis, externally prepared]. Universiteit van Amsterdam, Amsterdam.
- Xu, T. (2017) The Relationship between Interest Rates, Income, GDP Growth and House Prices. *Research in Economics and Management*, 2(1), 30-37. <https://dx.doi.org/10.22158/rem.v2n1p30>.