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THE ROLE OF GDP AND THE MACROECONOMIC ENVIRONMENT IN SHAPING INTERNATIONAL TRADE AND AGRI-FOOD SECTOR RESTRUCTURING IN EUROPE*

Ivana Kravčáková Vozárová ^{1*}, Martina Košíková ², Alexandra Chapčáková ³, Hawree Dizaye ⁴, Juraj Smatana ⁵, Vladislav Stanko ⁶

^{1,2,3,4,5} University of Presov in Presov, Faculty of Management and Business, Konstantinova 16, 080 01 Presov, Slovak Republic

⁴ Tomas Bata University in Zlin, Czechia, Faculty of Management and Economics, Mostni 5139, 760 01 Zlin, Czech Republic

E-mails: ¹ ivana.kravcakova.vozarova@unipo.sk (Corresponding author); ² martina.kosikova@unipo.sk; ³ alexandra.chapcakova@unipo.sk; ⁴ dizaye@utb.cz; ⁵ juraj.smatana@smail.unipo.sk; ⁶ vladislav.stanko@smail.unipo.sk

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Abstract. Mergers and acquisitions represent a key strategic tool for growth and restructuring among leading companies on a global scale. This trend is especially evident in the agri-food sector, which has experienced significant consolidation over recent decades. Consolidation processes are occurring with remarkable intensity across all stages of the agri-food supply chain, from primary production and processing to distribution and retail. The aim of this paper is to investigate the relationship between macroeconomic factors and cross-border M&A activity in the agri-food sector within European countries over the period from 1998 to 2023. More specifically, the study focuses on quantifying the impact of gross domestic product on the volume of cross-border mergers and acquisitions. Using panel data and advanced econometric models, the research examines whether countries with higher economic performance tend to engage more actively in M&A transactions. The findings demonstrate a statistically significant positive correlation between the percentage growth of GDP and the percentage increase in cross-border M&A volume, suggesting that economically strong European countries are more likely to pursue and complete mergers and acquisitions within the agri-food industry. This relationship underscores the critical role of economic growth as a driver of consolidation and expansion strategies in this sector, providing valuable insights for policymakers and business leaders aiming to understand and influence market dynamics.

Keywords: mergers and acquisitions; agri-food sector; consolidation; international trade; European area

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1. Introduction

Mergers and acquisitions (M&As) are critical strategies for enhancing company competitiveness and fostering sustainable growth in the global economy. They involve combining enterprises to integrate resources, streamline

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operations, and improve profitability. M&As enable firms to access new markets, resources, and capabilities, achieve synergies such as productivity gains, cost reductions, and enhanced management quality, and diversify risk. In addition, the results of the research on the issue in question show that, from a macroeconomic point of view, cross-border M&As are an important determinant of transfers and the subsequent distribution of production from one country to another, they support technological transfer, the transfer of know-how and other capacities between different countries, which has a positive impact not only on the companies themselves, but also on the entire economies of the countries involved in these transactions (Wang et al., 2022; Hitt et al. 2016). The macroeconomic conditions of individual countries play a significant role in shaping merger and acquisition activities, as broader economic growth dynamics and structural characteristics influence investment decisions and corporate expansion strategies (Pekarčíková et al., 2025). Changes in interest rates, inflation, exchange rates, and gross domestic product growth can greatly influence companies' willingness to carry out planned M&A transactions. These differences suggest that firms' financial resources and strategic approaches vary depending on the level of economic development of the respective country. Overall, it can be said that macroeconomic factors have a diverse and often context-specific impact on the volume and success of M&A transactions, which is important to consider when planning strategies and developing policies that support business activities in different economic environments (Kumar et al., 2023; Chovancová et al., 2024; Pálka et al., 2025). Recent literature suggests that cross-border M&A activity cannot be fully explained by traditional macroeconomic variables alone, particularly in the agri-food sector (Hu et al., 2025). Institutional quality, regulatory frameworks, and the level of financial market development play an increasingly important role in shaping investment decisions and transaction feasibility. As highlighted by Boateng et al. (2014) and Kumar et al. (2023), factors such as governance quality, investor protection, and capital market maturity significantly influence both the volume and success of cross-border M&A transactions.

In addition, growing financial integration and globalization have made M&A activity more responsive to macroeconomic conditions. As noted by Moschieri et al. (2014), regional integration—particularly within the European Union—reduces transaction costs and uncertainty, thereby facilitating cross-border corporate restructuring. This effect is especially evident in the agri-food sector, where regulatory harmonization under the Common Agricultural Policy (CAP) provides a relatively stable and predictable institutional environment for investment.

According to Hernández et al. (2023), the issue of market concentration and the associated potential use of market power play a significant and long-standing role in the agri-food sector. It remains a central topic of interest not only for researchers, but also for policymakers and various stakeholders, including producers, processors, distributors, and consumer organizations. As consolidation within the industry continues to grow, concerns arise regarding the balance of power among actors in the supply chain, as well as the impact of market concentration on competition, pricing, and fairness in trading practices. This topic becomes even more critical in the context of ensuring food security, the stability of rural areas, and the sustainability of agricultural production.

2. Theoretical background

Effective company management requires the ability to respond promptly to dynamic changes in the external environment, which include economic, political, legal, and social factors. These changes can significantly impact on the business landscape and thus influence a company's stability and performance. One strategic response to such external challenges is through mergers and acquisitions. These are forms of corporate restructuring that enable companies to adapt to new conditions, enhance their competitiveness, expand market share, or improve internal efficiency (Masron & Subramaniam, 2018; Kolesnikov & Kolesnikova, 2018). The need to comprehensively assess the impacts of concentration within the agri-food sector has never been more urgent. Although concentration has long been a characteristic of the agricultural sector, it has dramatically increased since the 1980s. While market concentration manifests in various ways, its most visible form is highly publicized mergers and acquisitions, that is, when companies decide to merge horizontally or vertically, allowing them to capture larger market shares. Across all economic sectors, the total volume of merger and acquisition activity represents the most visible consolidation trend (Mooney, 2017). Mergers and acquisitions, as a form of growth, are used to restructure leading companies worldwide. To meet rising domestic and global

demand, companies aggressively expand their capacity primarily through M&A (Gupta & Raman, 2022). Also, according to Hernández et al. (2023), in recent years, the agri-food sector has experienced significant market concentration and consolidation, primarily driven by mergers and acquisitions, as well as the transformation of supply chains themselves. A key contributing factor has also been the global expansion of retail chains, particularly supermarkets. While increasing horizontal and vertical integration can lead to greater efficiency, for example, through economies of scale or improved coordination, in cases where such benefits are lacking, it may also result in the abuse of market power, tacit collusion among firms, or other anticompetitive practices. The agri-food sector represents a vital segment of the primary industry, playing a crucial role in sustaining human life through food production. Beyond its basic function, it also contributes significantly to both domestic and international economic growth. According to the World Bank, agriculture accounts for approximately 4% of global GDP, with this figure exceeding 25% in some of the world's least developed countries. Additionally, the sector is a major source of employment worldwide. Data from the Food and Agriculture Organization (FAO) indicates that agriculture is the second-largest employment sector globally, providing work for 26.7% of the global labor force (Huang & Scrimgeour, 2024).

Agricultural land plays an important role in land use patterns across Europe. Grassland and cropland together make up 39% of Europe's land cover. Agriculture is an inherent part of food systems, and the range of food produced in the EU is diverse. The EU is broadly self-sufficient in most primary agricultural commodities. It is also the single largest exporter of agri-food products, which include processed food. The development of the agricultural sector is strongly influenced by the EU's Common Agri-cultural Policy (CAP). Ever since its creation in the mid-20th century, EU agricultural policy has had a strong economic dimension. Yet, over the last 50 years, there has been a shift in the type of subsidies provided and a move from a primarily sector-oriented policy to a more integrated rural development policy with structural and agri-environmental measures (EEA, 2024). Agriculture and food-related industries and services provide over 44 million jobs in the EU, including regular work for 20 million people within the agricultural sector itself. Thanks to its varied climate, fertile soil, the technical skills of its farmers, and the quality of its products, the EU is one of the world's leading producers and exporters of agricultural products (EU Agriculture, 2023).

According to Muehlfeld et al. (2011), studying M&A determinants for the agri-food sector is important for two reasons. The first reason is that agri-food M&As typically rank among the largest in size and make up a large proportion of the total M&A activity. Second, the agri-food industry has many characteristics that differentiate it from other industries, and therefore determinants explaining the success and failure of M&As in other industries are not necessarily relatable to the agri-food industry. For example, in the agri-food industry there is a comparatively large number of small players.

According to Ollinger et al. (2005), for many years, mergers and acquisitions in the food industry have been viewed with scepticism. The primary concern was that mergers, by reducing the number of firms and increasing industry concentration, were promoting anticompetitive pricing behavior. Across all sectors, M&As are considered a primary means to survive and thrive in highly competitive, large, or even globalized markets—where the competition itself is increasingly consolidated. Corporations tend to justify M&A deals in the agri-food sector in order to (Ramamurthy & de Lavigne, 2017; Mooney, 2017):

- maximize shareholder value;
- increase and/or protect market share;
- expand to new geographical markets;
- acquire new technologies/services/intellectual property;
- gain control over supply chains.

Consolidation occurs when many different business units merge into fewer larger units. Although consolidation is a complex topic, the structure that consolidation creates is relatively straightforward. Numerous interrelated factors drive consolidation. Financial considerations that favor large operations underline patterns of consolidation in agriculture. The technological, social, and political drivers of this pattern have made it more difficult for smaller farms to survive. One aspect of the financial considerations that favor larger consolidated operations is the cost and importance of agricultural technology. Advances in technology have greatly increased agricultural production in certain sectors over the last century and have become vital to the success of some

mod-ern farming operations. However, there are high barriers to using this technology. Technology needed to keep up with the economic scale of production requires both capital and knowledge. Purchasing technology typically requires large, fixed investments. Due to the cost of capital and knowledge investment, larger farms with more resources are more likely able to purchase new technology (Hannah, 2022). By pooling the necessary capital to develop technologies, many business leaders further believe M&As provide the means to address the challenges of sustainability, climate change, population growth, and shifting consumer demand (Mooney, 2017).

Although the agricultural production sector has historically been much more fragmented than other stages of the food and agricultural industry, it has been transitioning for decades from modestly sized, independent businesses to increasingly larger-scale businesses more tightly aligned across the value chain. The important features of consolidation and structural change in that industry are according to Langemeier & Boehlje (2017) economies of scale. Economies of scale exist when average cost per unit declines as output expands. In production agriculture, technology adoption can foster economies of scale and competitive advantages for a couple of reasons. First, early adopters of technology often reap above average net returns. Second, in a sector with rapidly changing technology such as production agriculture, firms that do not adopt technology become increasingly inefficient. Another potential source of economies of scale are advantages associated with buying inputs or selling outputs in relatively large quantities (specifically, pecuniary economies of scale). In addition, larger companies may be in a better position to negotiate with buyers.

Given that the share and value of M&As in the agri-food sector is the second highest after the financial sector, an increasing number of studies have been devoted to this issue from various perspectives. As a strategic part of national economies and food security systems, the agri-food sector has become an increasingly attractive target for investment activities, with consolidation processes taking place at multiple levels of the supply chain. Some studies evaluate the effects of M&As at the national level (Boateng et al. 2014; Aleksandrov et al. 2020; Ostapchuk et al., 2021; Honcharenko & Honcharenko, 2023; Blundell et al., 2025), while others examine the motivations of multinational corporations (Langemeier & Boehlje 2017; Mooney, 2017), the environmental impacts (Huang et al., 2024), the impact of R&D input as an influential factor in the success (Hong & Chen, 2022) or examine the failure factors (Meliá-Martí, 2021).

The economic situation measured by GDP changes, as well as the conditions in the capital market, reflected in returns on assets, may affect the activity around mergers and acquisitions. GDP growth can be taken as a sign of future growth in aggregate demand, which justifies the need to increase production capacity. Internal investment and M&As are the two options for increasing production capacity. The advantage of the latter is that the increase in production capacity occurs much faster than in the case of the former. Before the peak point of the business cycle is reached, growth in most branches of production is weakened, and the aggregated activity in M&As starts to decrease. Similarly, during a recession, the decline in demand results in the appearance of excess capacity in the sector, we must deal with the tendency of reducing production potential (Figiel & Kupel, 2014).

3. Research objective and methodology

Macroeconomic factors such as GDP growth, interest rates, and inflation are inherently unpredictable and difficult to forecast. Due to this uncertainty, companies tend to be cautious when considering mergers and acquisitions, as economically unstable periods carry increased risks, particularly related to the fluctuating valuation of target firms. The main purpose of this paper is to evaluate the relationship and, above all, to quantify the impact of GDP on the volume of cross-border mergers and acquisitions in the agri-food sector for the period 1998–2023.

Based on the aim of the study, the following hypothesis is proposed:

H1: GDP affects the growth of the volume of cross-border mergers and acquisitions in the agri-food sector.

The analysis focuses on 12 countries within the European area (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Portugal, Spain, and the United Kingdom), covering a period of 24 years (from 1998 to 2023). Panel data were used, applying regression models specifically designed for the analysis of

such structured data, namely: the pooled regression model (PRM), the random effects model (REM), and the fixed effects model (FEM). These methods are constructed as follows:

$$\text{PRM: } M\&A_{it} = \alpha + \beta_1 * \text{GDP}_{it1} + \varepsilon_{it} \quad (1)$$

$$\text{REM: } M\&A_{it} = \beta_1 * \text{GDP}_{it1} + (\alpha + u_i) + \varepsilon_{it} \quad (2)$$

$$\text{FEM: } M\&A_{it} = \alpha + \beta_1 * \text{GDP}_{it1} + \varepsilon_{it}; \alpha_i = \alpha_{i1} + \alpha_{i2} + \dots + \alpha_{ie} \quad (3)$$

Where M&As represent the volume of realized cross-border mergers and acquisitions in the agri-food sector in the countries of the European area (in mil. EUR). This variable is expressed by a natural logarithm (dependent variable). GDP (annual gross domestic product from Eurostat in mil. EUR at current prices) represents the independent variable. GDP was also expressed by a natural logarithm. The dataset containing records of implemented cross-border mergers and acquisitions in the European Area was based on data from the Zephyr and Orbis database (Bureau Van Dijk, 2024). The dataset consists of individual cross-border equity deals between the home country of the acquirer and the host country where the target firm is domiciled. The source of other used statistical data is Eurostat (Eurostat, 2025).

Before each separate regression analysis, we assessed the stationarity of the dependent and independent variables using the ADF or KPSS test for the presence of unit roots. Before constructing the regression models, we carried out correlation analysis. To determine the appropriateness of one of the three regression models mentioned above, we used the joint significance test of the averages of different groups, the Breusch-Pagan test, or the Hausman test statistic. All three methods were only used for the analysis of the complete dataset for the purpose of visualization and comparison.

4. Results and discussion

After determining the existence of unit roots using the ADF test and KPSS test, we can confirm the stationarity of the indicators; therefore, it was not necessary to perform any correction (difference) of the indicators. Subsequently, we proceeded with the correlation analysis, the results of which are shown in Table 1.

Table 1. Correlation analysis – M&A – GDP

Correlation	Pearson correlation coefficient	Coefficient of determination	p-value
M&A – GDP	0.4299	0.1848	0.0000***

Source: own processing

*** represent the statistical importance of 10%.

As part of this analysis, assumptions about a positive correlation between GDP and the volume of cross-border mergers and acquisitions in the agri-food sector were confirmed. Although there is a weak but directly proportional relationship between the mentioned indicators, the growth of the economy thus affects the growth of the volume of cross-border mergers and acquisitions in the agri-food sector. The results of the sub-sequent regression analysis by applying three panel regression methods are shown in Table 2.

Table 2. Comparison of regression models

	PRM	REM	FEM
Constant	-21.2129	-18.7175	38.3237
	[0.0000] ***	[0.0007] ***	[0.0559] *
lnGDP	2.3228	2.1346	-2.1673
	[0.0000] ***	[0.0000] ***	[0.1510]
Adjusted R ²	0.1820		0.0075
S.E. of regression	5.0402	5.0352	4.8647

Schwarz criterion	1758.2760	1758.7050	1788.8650
Rho	0.2516	0.1467	0.1467
Akaike criterion	1750.9500	1751.3790	1741.2460
Hannan-Quinn	1753.8860	1754.3150	1760.3290
Durbin-Watson	1.3583	1.5201	1.5201

Source: own processing

To choose between PRM and FEM models, we used the test of joint significance of differing group means. A low p-value counts against the null hypothesis that the pooled OLS model (PRM model) is adequate, in favour of the fixed effects alternative. The Breusch-Pagan test statistic is used to choose between PRM and REM models. A low p-value counts against the null hypothesis that the pooled OLS model is adequate, in favor of the random effects alternative. To choose between the FEM and REM models, the Hausman specification test is used. The null hypothesis assumes that the parameter estimates of the generalized least squares method in the REM model and the least squares method in the FEM model are consistent, and thus the least squares estimation is not efficient. In the alternative hypothesis, only the method of least squares is consistent (Lukáčik et al. 2011). The results of the individual mentioned tests are shown in Table 3. Based on the test of joint significance of the means of different groups, and of the Breusch-Pagan test statistic and Hausman test statistic (Table 3), we prefer the fixed effects model.

Table 3. The results of the individual-mentioned tests

Panel test	F/LM/H	p-value
Test of joint significance of differing group means	2.9093	0.0012
Breusch-Pagan test statistics	4.0681	0.0437
Hausman test statistics	8.9211	0.0028

Source: own processing

Since the GDP was not significant in the FEM model, we should calibrate the model by including another variable. This area therefore represents the limits of our research as well as an area for future investigation. But in this work, we prefer to include the time dummies. The most appropriately chosen model was again the FEM model (Table 4).

Table 4. The results of FEM model.

	Coefficient	Std. Error	t-ratio	p-value	
Const	-130.958	52.4388	-2.497	0.0132	**
lnGDP	10.0589	3.87789	2.594	0.0100	**
dt_1	7.62790	3.12783	2.439	0.0154	**
dt_2	11.6436	2.95414	3.941	0.0001	***
dt_3	10.8455	2.76938	3.916	0.0001	***
dt_4	11.9710	2.64027	4.534	<0.0001	***
dt_5	11.4341	2.53846	4.504	<0.0001	***
dt_6	8.85396	2.46887	3.586	0.0004	***
dt_7	10.5822	2.34915	4.505	<0.0001	***
dt_8	9.93164	2.25698	4.400	<0.0001	***
dt_9	10.3589	2.14298	4.834	<0.0001	***

dt_10	8.13796	2.04671	3.976	<0.0001	***
dt_11	8.82132	2.02090	4.365	<0.0001	***
dt_12	5.76472	2.08901	2.760	0.0062	***
dt_13	5.76727	2.04392	2.822	0.0052	***
dt_14	5.63481	2.02214	2.787	0.0057	***
dt_15	5.42704	2.01414	2.694	0.0075	***
dt_16	6.99030	2.00719	3.483	0.0006	***
dt_17	6.75528	1.97492	3.421	0.0007	***
dt_18	4.29954	1.93368	2.224	0.0271	**
dt_19	3.68575	1.91641	1.923	0.0556	*
dt_20	6.72260	1.89280	3.552	0.0005	***
dt_21	1.93926	1.87506	1.034	0.3020	
dt_22	4.25985	1.86504	2.284	0.0232	**
dt_23	4.54737	1.88090	2.418	0.0163	**
Adjusted R			0.199		
S.E. of regression			4.5635		
Schwarz criterion			1857.132		
Rho			0.109625		
Akaike criterion			1725.2660		
Hannan-Quinn			1778.1100		
Durbin-Watson			1.6269		

Source: own processing

The above values show that the percentage growth of GDP has a significant impact on the percentage growth of the volume of cross-border mergers and acquisitions in the agri-food sector. The obtained model is statistically significant, and thus we can confirm the established hypothesis. However, the resulting model explains only a small part of the variability of the variables.

The empirical findings confirm a statistically significant relationship between GDP growth and M&A activity. However, the model's limited explanatory power suggests that GDP should be interpreted as an enabling factor rather than a sole determinant. Economic growth creates favorable conditions—such as increased liquidity, higher firm valuations, and stronger investor confidence—but does not independently drive transaction decisions (Chen et al., 2025). This result is consistent with the broader literature, which emphasizes that M&A activity is inherently multidimensional, shaped by sector-specific dynamics, firm-level strategies, and institutional frameworks.

In the agri-food sector, this relationship is further influenced by structural characteristics, including supply chain fragmentation, dependence on natural resources, and exposure to external shocks (Iannaccone et al., 2025). Unlike high-technology industries, where innovation is a primary driver, M&A activity in the agri-food sector is more commonly motivated by economies of scale, vertical integration, and risk diversification. Consequently, GDP growth may influence M&A activity indirectly by increasing demand for food products and encouraging investment in supply chain efficiency and resilience (Gavura et al., 2025).

There is no doubt that in the 21st century the market for corporate control activities has been largely inducted by significant economic initiatives such as globalization, deregulation, regional agreements, trade and financial liberalization, government policies, elimination of bureaucratic barriers, establishment of international accounting standards and shareholding systems, corporate governance and capital market development [Aquaro et al., 2021; Reddy, 2015; Moschieri, 2014]. In many cases, mergers and acquisitions are driven by a key trend within a given industry, such as rapidly changing technology, which is driving many of the deals in high technology and gaining technological synergies (Suo, et al. 2023; Manne et al. 2022; Hitt et al., 2016).

Fierce competition, which is driving many of the deals in many industries. The pressure to control costs is driving in many of the deals in the agri-food sector. Some transactions are motivated by the need to transform a firm's corporate identity or even to be transformative for the buyer overall, where the target company may lead the buyer in a new direction or add significant new capability. Many deals are fuelled by the need to spread the risk and cost of developing new technologies, research into new gaining access to new sources of energy etc. The global environment has forced many companies to explore mergers and acquisitions as a means of developing an international presence and expanding their market share by producing synergies. This market penetration strategy is often more cost-effective compared to greenfield investment (Ahsan & Musteen, 2011). The reallocation of capital through M&A is one of the most significant phenomena of recent decades on a global as well as a European scale. Cross-border mergers and acquisitions thus represent an important phenomenon of globalisation affecting the competitiveness of entire states (regions) and redistributing economic forces in the world (Štefko et al., 2022; Jassó et al., 2025). The agri-food sector is an important component of the primary industry and plays a fundamentally crucial role by helping to sustain life through the provision of food necessary for human survival (Alkathiri et al., 2024). According to Mooney (2017), mergers are sparking unprecedented consolidation across food systems, and new technologies represent a powerful new driver. For decades, firms in the agri-food sector have pursued M&A and other forms of consolidation as part of their growth strategies. However, the recent spate of mega-mergers has taken this logic to a new scale

While many sectors across the market saw deal volumes nearly pause entirely for much of 2020, M&A activity in the food and agriculture market recorded a slight increase compared to 2019. Much of the focus among strategic players, and the motivation for M&A, has been to achieve enhanced scale and better control over their supply chains. The sector has also seen significant crossover, especially among foodservice players, who increasingly sought acquisitions in the grocery and retail end markets following drastic declines in restaurant sales during the height of the pandemic (Boyle, 2022).

Langemeier and Boehlje (2017) also examined the most likely drivers of consolidation for the next few years and discussed the implications of changes in the structure of production agriculture for agribusinesses. Key drivers influencing farm consolidation will include capital and land market access, cost economies, government payments and limits, managerial resources, off-farm employment opportunities, profitability and growth focus, risk, and value-chain alliances. Current trends in these key drivers favour continued farm consolidation. Due to anticipated changes in technology and production practices, required managerial expertise, and the value chain, production agriculture is during a major transformation. Forces driving this transformation are many and widespread, including increased quality, safety, and traceability demands of food processors and consumers; implementation of information and process control technologies; adoption of technologies and business practices that exploit economies of scale; increased use of leasing and other outsourcing strategies to foster growth, etc.

Agricultural commodity trading plays a vital role in the functioning of the global food system and significantly shapes international price dynamics. The study of Lianos et al. (2024) suggests that increasing consolidation in this sector may enhance market dominance, disrupt market stability, and lead to higher prices for end consumers. At the same time, farmers are likely to face declining profits, while new and smaller firms may struggle to enter the market, reducing overall competition. Such consolidation may also hinder innovation, slow down sustainability efforts, and have negative implications for food security and the resilience of food systems. Also, according to Hernández et al. (2023), recent global crises, such as the COVID-19 pandemic and the Russian invasion of Ukraine, have caused significant disruptions in agri-food supply chains and sharp increases in input prices, further intensifying concerns about market concentration and its consequences. Nevertheless, the

relationship between market concentration and the exercise of market power is not straightforward, it is a complex phenomenon that depends on numerous specific factors and market conditions.

Huang et al. (2024) examined the effect of agricultural determinants in cross-border M&As in the global agricultural and food sector over the 1996–2018 period. Based on country pairs in the agricultural and food sector, they found that, specifically, countries with better agricultural resources, better agricultural productivity, and better environmental performance are less likely to engage in cross-border M&As as acquirers but are more likely to be targeted. Countries with inadequate agricultural resources and productivity, and worse environments, are more likely to engage in cross-border M&As as acquirers but are less likely to be targeted. Better resources, productivity, as well as environmental performance, are undoubtedly factors that also determine the GDP of the countries themselves and reflect broader environmental and socio-economic conditions influencing economic systems (Al Khouri et al., 2025). Our research also confirmed that the percentage growth of GDP has a significant impact on the percentage growth of the volume of cross-border mergers and acquisitions in the agri-food sector; that is, EU countries that are economically more efficient also implement more M&A deals, which is consistent with findings on the transformation potential of resource-based territories and their economic utilization (Iannaccone et al., 2024). Further research will therefore identify other determinants that have an impact on the implementation of M&A in the agri-food sector from the point of view of natural and climatic conditions, as well as the geographical proximity of countries.

From a policy perspective, the results suggest that promoting economic growth alone is insufficient to ensure effective and sustainable consolidation in the agri-food sector. Policymakers should also prioritize strengthening institutional quality, improving access to finance, and maintaining competitive market structures. In addition, appropriate regulatory oversight is essential to mitigate the risks associated with excessive market concentration, including reduced competition and potential negative impacts on small producers and consumers.

The study by Lakra (2024) suggests that strong GDP growth is associated with higher merger and acquisition activity. This phenomenon is linked to increased business optimism regarding the economic situation and expectations of future growth. Higher GDP can also raise company valuations and profitability, making M&A transactions financially more attractive. Conversely, during recessions or periods of slower GDP growth, M&A activity tends to decline, as firms prioritize stabilizing their operations. The research thus confirms a significant relationship between the volume and frequency of M&A and the overall state of the economy.

4. Conclusions

The conducted empirical analysis confirms the presence of a positive relationship between GDP growth and the volume of cross-border mergers and acquisitions in the European agri-food sector over the period 1998–2023. The correlation analysis revealed a weak but statistically significant positive association between GDP and M&A activity, supporting the hypothesis that economic growth encourages increased consolidation activity through cross-border M&As. Subsequent regression analyses applying pooled regression (PRM), random effects (REM), and fixed effects models (FEM) provided deeper insights into this relationship.

Despite the statistical significance, the relatively low adjusted R^2 suggests that GDP alone explains only a modest portion of the variation in cross-border M&A activity. This indicates the influence of additional factors beyond macroeconomic growth, such as regulatory environments, sector-specific policies, market structure, and geopolitical conditions, which warrant further exploration. In summary, this study underscores the important role of economic growth as a driver of cross-border consolidation in the European agri-food sector but also highlights the complexity of factors shaping M&A dynamics. Future research should aim to incorporate other relevant determinants and extend the analysis to capture these multifaceted influences comprehensively. These in-sights are valuable for policymakers and business leaders aiming to foster sustainable growth and competitiveness in the agri-food industry.

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Assoc. prof. Ing. Ivana KRAVČÁKOVÁ VOZÁROVÁ, PhD. work as associate professor at the Department of Economics and Economy of the Faculty of Management and Business at the University of Prešov in Prešov. Scientific work of Ivana Kravčáková Vozárová is focused on research of economic performance and management of Slovak companies mainly of the agricultural sector, the analysis of international trade in agricultural commodities and the evaluation of the competitiveness of the agricultural sector of the Slovak Republic.

ORCID: <https://orcid.org/0000-0002-3056-5294>

Mgr. Martina KOŠÍKOVÁ, PhD. work as assistant professor at the Department of Finance, Accounting and Mathematical Methods of the Faculty of Management and Business at the University of Prešov in Prešov. She specializes in the application of statistical and econometric methods in the fields of finance and economics. Their research focuses on the quantitative analysis of economic phenomena, modeling of financial processes, processing of panel and time series data, and interpretation of results with an emphasis on practical applicability in economic practice.

ORCID: <https://orcid.org/0000-0002-8765-2399>

Assoc. prof. Ing. Alexandra CHAPČÁKOVÁ, PhD. work as associate professor at the Department of Economics and Economy of the Faculty of Management and Business at the University of Prešov in Prešov. Alexandra Chapčáková’s research activities are oriented towards business valuation, mergers and acquisitions, and the assessment of the quality of the business environment.

ORCID: <https://orcid.org/0000-0002-2766-7388>

Hawree DIZAYE is a PhD student at the Faculty of Management and Economics at Tomas Bata University in Zlin.

ORCID: <https://orcid.org/0009-0005-6426-4480>

Juraj SMATANA is a PhD student at the Department of Economics and Economy of the Faculty of Management and Business at the University of Presov in Presov.

ORCID: <https://orcid.org/0009-0005-9221-0746>

Vladislav STANKO is a PhD student at the Department of Economics and Economy of the Faculty of Management and Business at the University of Presov in Presov.

ORCID: <https://orcid.org/0009-0004-7139-6775>

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