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Research Article

A Market Competition Index for the Western Balkans

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Abstract

This paper provides a data-driven evaluation of market competition across the six Western Balkan countries by comparing retail prices for identical consumer products sold by the same European operator in its European Union (EU) home market and the local markets in the region. After normalizing for Value Added Tax (VAT) differences, a Market Competition Index (MCI) is constructed to capture the average relative price deviation from EU benchmarks in Albania, Kosovo, Serbia, North Macedonia, Montenegro, and Bosnia and Herzegovina, as a reflection of the degree of market competition in the consumer goods retailing sector of these countries. The 2025 results reveal pronounced variations in competitive intensity across the Western Balkans: Albania tops the ranking with the largest average price deviation from EU benchmark (89 points), followed by Montenegro (60 points) and North Macedonia (46 points); Kosovo occupies a middle position (37 points), while Bosnia and Herzegovina (25 points) and Serbia (23 points) record the smallest deviations, indicating the strongest alignment with EU pricing and, by extension, the most competitive local markets. A complementary Burden Index, which adjusts each country's Market Competition Index by its Purchasing Power Index (PPI) using 2023 Eurostat data, confirms that low-income markets face the greatest consumer strain. This dual-metric framework offers a precise monitoring tool for policymakers. As the Western Balkans progress toward EU accession, the MCI provides a clear benchmark for measuring reform progress, safeguarding consumer welfare, and supporting interventions to enhance market competition.

Keywords: Market Competition Index; Price Discrimination; Consumer Protection; EU Integration.

INTRODUCTION

Although progressing at different speeds, all Western Balkan countries are actively engaged in advancing their domestic reforms as part of the shared objective to join the European Union through the accession process. Albania marked a significant milestone by holding its first intergovernmental conference with the EU in July 2022, formally launching accession negotiations. Since then, Albania has begun opening negotiations under several key thematic clusters, including the "Fundamentals" and "External Relations" clusters, as well as more recently, the "Internal Market" cluster, which focuses on economic alignment with EU standards.

Undertaking the reforms required by the EU accession framework is not only instrumental in aligning national legislation with the acquis Communautaire, but also serves a broader purpose. Implementation of these reforms contributes to the development of well-functioning, transparent, and competitive markets that uphold consumer rights, reinforce institutional integrity, and support investor confidence. They benefit all the key stakeholders, governments, citizens, and the private sector, while strengthening the foundations for sustainable economic growth and regional stability as the countries prepare to join the EU family [1-3].

From this perspective, reforms required under the "Internal market" cluster, are essential for the success of the accession negotiations. Among the themes, market competition is crucial for ensuring fair consumer prices and healthy economic dynamics, particularly in transitional or developing market structures. In the Western Balkans, large multinational companies often operate with significant market power, yet the degree to which this power translates into price discriminations has remained under-explored.

Given the absence of robust, data-driven frameworks for cross-country evaluation of market competition in the Western Balkans, this research presents a novel quantitative framework designed to measure and assess the degree of firm-level competition across six Western Balkan countries: Albania, Kosovo, Bosnia and Herzegovina, North Macedonia, Serbia, and Montenegro. The framework specifically examines tax-excluded price disparities for identical products sold by the same companies, by isolating the effects of market dynamics from fiscal policies.

Building upon the author's previous research, the study develops a Market Competition Index grounded in empirical market data. Complementing this, an income-adjusted Burden Index is introduced to account for variations in consumer purchasing power across the region. Together, these indices provide a comprehensive perspective that captures both the absolute extent of price distortions and their relative impact on consumers' economic welfare. This dual-index approach delivers transparent, actionable insights to consumers and equips policymakers with a practical tool to benchmark market competitiveness and monitor the effectiveness of ongoing market reforms. This is particularly valuable within the framework of the Western Balkans' EU accession negotiations, where harmonizing market conditions with EU standards remains a strategic priority.

BUILDING A MARKET COMPETITION INDEX (MCI)

Competitiveness is not competition and competition, is not competitiveness. While both concepts relate to how firms and economies perform, they address different dimensions of economic activity. Michael Porter conceptualizes competition not merely as the rivalry among existing firms within a market, but as a broader phenomenon influenced by five fundamental forces outlined in his renowned Five Forces Framework. These forces collectively determine the intensity and nature of competition within an industry [4-6].

In contrast, competitiveness refers to the broader capability of a company, industry, or nation to consistently create, produce, and market goods and services that successfully meet the challenges of competition in international markets. More than just competing on low costs, competitiveness involves innovation, operational productivity, product quality, and the persistent ability to improve and upgrade both products and processes. Competitiveness also includes the capacity to enhance the real income and living standards of a society's citizens, highlighting its multifaceted nature beyond just market rivalry [2].

The Diamond Model, introduced by Porter as a framework tool for evaluating national competitiveness, comprises four key components one of which focuses on the intensity of rivalry among firms operating within a particular country or location. This element examines how the nature and extent of domestic competition influence the overall competitive environment. High levels of rivalry among local firms drive innovation, efficiency, and improved product quality, thereby enhancing the nation's capacity to compete successfully on the regional or global economy. Conversely, limited competition may lead to complacency and reduced incentives for progress. Thus, the degree of intra-national competition plays a pivotal role in shaping the dynamic economic conditions that underpin sustained competitive advantage within the locations [3].

Review of Existing Tools and Frameworks.

Beyond conceptual issues, assessing market competition and performing comparative analyses across multiple countries presents additional methodological challenges. Quantitative evaluations of competition at the cross-national level remain scarce, with only a limited number of reports from international organizations offering such insights. Moreover, the majority of these studies exclude or insufficiently cover the Western Balkans region, resulting in a notable gap in comprehensive, data-driven assessments of market dynamics within this area. The most notable sources include:

- The OECD Competition Assessment Toolkit helps governments improve laws and regulations to foster competition, aiming to lower prices, broaden product choice, and enhance quality. It guides policymakers in identifying and reforming rules that unnecessarily restrict competition, focusing on removing barriers related to market participation, firm behaviour, incentives, and consumer information [7]. Western Balkans countries are not included in this toolkit. The OECD additionally publishes the Western Balkans Competitiveness Outlook, which evaluates competitiveness within a broader policy framework.
- The Economic Convergence Scoreboard for the Western Balkans 2025 offers an updated assessment of how closely the economic policies of candidate countries align with those of the European Union [8]. The report underscores the substantial efforts required by the Western Balkans to reform and modernize key economic sectors. It also introduces an analytical framework designed to measure reform outcomes and provide targeted policy guidance. Through this tool, the Scoreboard delivers a comprehensive evaluation of ongoing reforms and the policy measures

needed to accelerate sustainable economic growth and advance the region's integration into the EU.

- The European Commission's Market Structure Indicators. The European Commission regularly publishes reports and datasets that include measures of market concentration, competition intensity, and market power in various sectors across the EU countries. These include concentration ratios (CR4, CR8), Herfindahl-Hirschman Index (HHI), and price-cost margins to assess rivalry and competitiveness [9]. None of the Western Balkan's countries are currently included in this assessment.
- The Bertelsmann Stiftung's Transformation Index is a comprehensive tool for analysing and evaluating the quality of democracy, market economies, and governance in developing and transition countries. This index includes a component that measures market concentration and competition intensity across countries by analysing sectoral data, focusing on the number of firms, market shares, and entry barriers. The results for this component during 2024 reveal that in the Western Balkans countries North Macedonia has the lead (8.8/10) followed by Montenegro (8.5/10), Albania (7.8/10), Serbia, and Bosnia and Herzegovina (7.5/10), and Kosovo (7.3/10) [10].
- The Global Competitiveness Report by the World Economic Forum has been the most comprehensive and prestigious report on competitiveness including the Global Competitiveness Index (GCI), a highly comprehensive index, which captures the microeconomic and macroeconomic foundations of national competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country [11]. Unfortunately, the World Economic Forum discontinued the publication of the report in 2020 and no data is available since then.

Limitations of the Existing Models.

The absence, scarcity, or inconsistency of reliable market competition data in the Western Balkans represents a significant barrier to fully understanding the competitive dynamics within the region, hindering efforts to assess market performance and identify areas for improvement. Such insights are crucial not only for safeguarding consumer interests but also for enabling informed policymaking. Furthermore, a deeper understanding of market competition is essential for supporting the countries in their EU accession process, as alignment with EU market standards requires robust, transparent competition frameworks.

While international reports on competitiveness and competition enjoy widespread recognition for their comprehensive analyses and valuable insights, their methodologies are not without significant limitations. For instance, the Global Competitiveness Index (GCI) aggregates over one hundred diverse components grouped in 12 pillars, each designed to capture different facets of competitiveness. These components derive from a mixture of real data and subjective inputs, including executive opinion surveys conducted among businesses across participating countries. This combination, while rich in scope,

introduces challenges for comparisons over time and across countries related to data consistency, representativeness of perceptual measures, as well as issues pertaining to the stability and complexity of the methodology [11].

The competition sub-pillar of GCI is computed as a weighted average of two main elements: domestic competition and foreign competition. Both elements incorporate indicators aimed at revealing the degree to which competition within the economy may be distorted. The relative influence of these distortions is modulated by the proportional size of domestic versus foreign competition. Domestic competition is approximated by the aggregate sum of consumption (C), investment (I), government spending (G), and exports (X), whereas foreign competition corresponds to imports (M). Accordingly, the weighting assigns a factor of (C + I + G + X)/(C + I + G + X + M) to domestic competition and M/(C + I + G + X + M) to foreign competition. This formulation underscores that competition, as represented within the Global Competitiveness Index, reflects a macroeconomic perspective derived from national accounts data rather than granular, firm-level market behaviour. Consequently, while valuable for broad comparative purposes, the index may overlook nuanced competitive dynamics and firm-specific realities within individual markets [11].

The OECD Economic Convergence Scoreboard for the Western Balkans 2025 (Figure 1) provides a detailed assessment of the region's progress toward alignment with EU economic standards [8]. Within its Business Environment cluster, the Scoreboard presents a composite convergence score for each Western Balkan economy, quantifying how closely national policy outcomes and market conditions approach those observed in the European Union. These scores capture the relative distance of each country from the EU benchmark, offering a comparative perspective on overall reform progress. In addition to the aggregate convergence results, the Scoreboard disaggregates performance across eight key indicators including areas such as non-performing loans, credit to private sector, private investment, FDI net flows, control of corruption, informal employment, trade flows and SME export performance.

The report indicates an overall positive regional outlook within the Business Environment cluster, as all Western Balkan economies have now exceeded half of the EU average benchmark. Nevertheless, the pace of convergence remains modest: between 2014 and 2023, the region collectively reduced its gap with the European Union by only one percentage point. Among the six economies, Montenegro demonstrates the strongest relative performance, whereas Albania continues to lag behind its regional peers [8].

Other studies and reports emphasize detailed, localized data by focusing on specific market indicators relevant to individual countries or sectors, such as the number of firms operating within an economy or specific industries, as well as measures of market concentration based on the market shares of the leading companies. Although such data are useful for outlining the structural aspects of markets and measuring concentration levels, they often fail to fully reflect the true intensity and quality of competition present in the market. Such analyses may miss dynamic competitive factors such as pricing

behaviour, innovation activity, barriers to market entry, and consumer responsiveness elements essential for understanding how competition operates in reality, beyond the mere market structure.

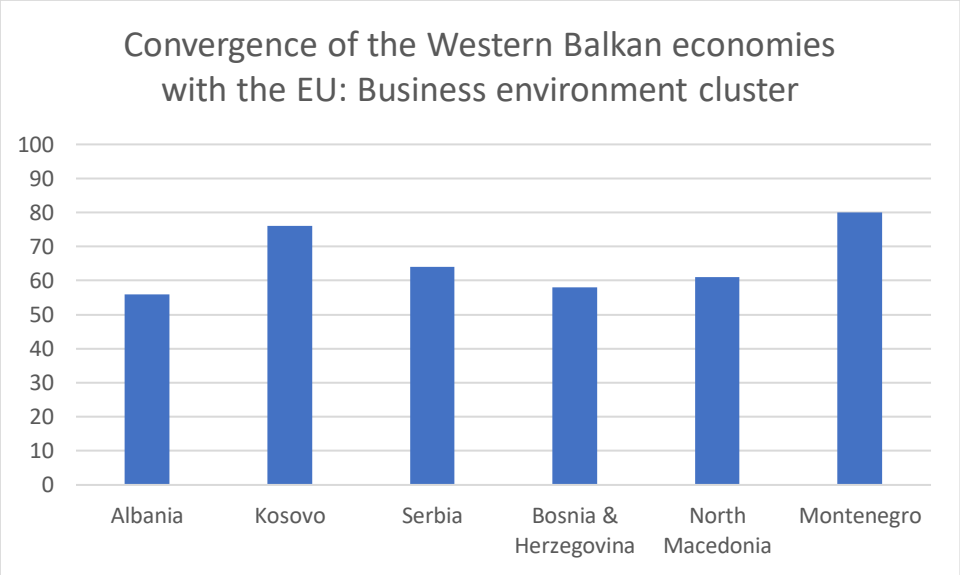

Figure 1. OECD Convergence of the Western Balkan economies with the EU: Business environment cluster

PROPOSED APPROACH

None of the reviewed sources offer direct competition measurements at the firm or product level, as their methodologies predominantly operate within macro-economic, institutional, or policy frameworks. These indices—such as those published by the OECD, the Bertelsmann Transformation Index, or the European Commission provide valuable insights into structural and regulatory conditions but do not capture micro-level market dynamics or consumer-side outcomes. Consequently, they can serve only as benchmarking complements to more granular analyses like the Market Competition Index proposed in this study. Importantly, their aggregated results do not always correspond to real-world market behaviour, where pricing patterns and competitive intensity may diverge significantly from institutional indicators.

Acknowledging these limitations, the proposed Market Competition Index (MCI) adopts a distinct approach by focusing on observed price disparities between local markets in the Western Balkans and their European counterparts. Specifically, it examines the prices of identical products sold by the same European firms across markets. The focus on identical goods and same suppliers allows for a more direct assessment of competitive dynamics, as it isolates variations attributable to market functioning rather than structural differences. By leveraging actual price data rather than aggregate market indicators, the proposed index seeks to provide a more precise and actionable measure of the degree of

competition prevailing in the Western Balkans countries relative to established European markets.

The proposed approach builds upon the author's research in 2024, which through empirical evidence uncovered that multinational companies engage in pricing practices that diverge significantly from EU markets, evidencing a significant discrepancy between consumer and business perceptions and actual market realities in Albania. The study [6], which collected price data for 150 consumer products randomly selected from 13 product categories and sold by three major European companies in Albania, revealed that the average price of these products in the Albanian market was 79.7% higher than the prices of the same products sold by the same companies in EU markets. The identified excessive price discrimination, pervasive in practices of many other companies operating in Albania, challenges common assumptions and highlights the need for more accurate, data-driven analyses of market pricing dynamics in the region [6].

Essentially, excessive prices reflect lack of a true competition in a market. Price is a fundamental element in the relationship between companies and consumers; it is the most tangible factor that directly impacts consumers' experiences. Unlike marketing tactics, advertising campaigns, or global brand recognition, price cannot be substituted, nor covered by propaganda. When companies engage in excessive price discrimination, especially in markets where they possess the power to do so and they are allowed to do so, there are significant long-term negative consequences. Profit margins generated under conditions of suboptimal production levels hinder the long-term growth prospects of firms. Such practices discourage investment in innovation, restrict business expansion, and limit the diversification of products and services [6].

Beyond economic implications for firms, excessive pricing exacerbates social inequalities, contributes to the erosion of middle-class income, and fosters social exclusion. This environment of high costs plays a critical role in driving emigration, as citizens seek better opportunities abroad, escaping the economic constraints imposed by inflated domestic prices.

The foundation of the proposed Market Competition Index model is based on the premise that excessive price discriminations cannot be attributed to strategic pricing or differences in local costs such as production or distribution. The root cause lies in the lack of true competition in the market. If the same multinational companies engage in excessive price discrimination for identical products in countries with relatively similar economic conditions and market sizes, the primary factor enabling such behaviour is the level of competition present in those markets.

A Five Forces analysis supports this hypothesis, revealing that for multinational companies, the bargaining power of suppliers is effectively non-existent, as the parent company serves as the sole supplier. The threat of new entrants remains low, due to the relative unattractiveness of these markets compared to the more lucrative EU market. Additionally, the threat posed by substitute products is minimal, as domestic production hardly matches the superior quality of EU-manufactured goods. The bargaining power of

consumers is similarly weak, due to limited choice, strong preference for EU products, and inadequate market oversight [4]. Finally, competition among existing market players is subdued, with multinational firms enjoying a de facto micro-monopoly [10] over unique EU products that are highly preferred by local consumers. This results in limited market rivalry, which enables and fuels abuse with price discrimination.

Consideration of Logistics and Transport Costs.

While factors such as market size and maturity, income levels, or cost structure do not sufficiently explain the significant price differences identified in this study, transport costs are often cited as a potential reason for the price disparities in identical products sold by the same market operators. Prior research has pointed that the total transport cost for companies in the retail sector constitutes a minimal portion of the overall cost structure. To address this argument and isolate the influence of transport costs, the proposed Market Competition Index model was also applied to Greece (in addition to the Western Balkans countries), a neighbouring EU country of the Western Balkans. Although Greece is geographically farther from the EU market than the Western Balkans countries considered in this study, its distance is comparable to that of the latter.

The inclusion of Greece as an EU comparator provides an internal control demonstrating that price disparities are primarily competition-driven rather than cost-driven. This comparison provides valuable insights into the relevance of transport costs in the excessive price differences observed across the Western Balkans markets.

Consideration of Consumption Taxes.

Value-added tax (VAT) is the primary consumption tax imposed on products in European countries, including those in the Western Balkans, see Table 1. Variations in VAT rates across different countries in the region, including Greece, as illustrated in the following table, create challenges when attempting to directly compare consumer prices between countries.

Table 1. VAT rates in Western Balkan countries and Greece, 2025

Countries	**Albania**	**Kosovo**	**Serbia**	**Montenegro**	**North Macedonia**	**Bosnia and Herzegovina**	**Greece**
VAT rate	20%	18%	20%	21%	18%	17%	24%

To address this issue and isolate the influence of market pricing behaviour from the impact of tax policy, all prices in this study have been adjusted by excluding VAT, using publicly available tax schedules for each respective country. Import tariffs were excluded from the analysis, as all the Western Balkan countries have preferential trade arrangements

with the European Union under the Stabilization and Association Agreements (SAAs). Additionally, it is important to note that no excise taxes were applied to the selected products used in this research, further simplifying the comparison across markets.

Structure of the Market Competition Index (MCI).

The proposed Market Competition Index quantifies the average price disparities for identical products sold by the same companies in their EU home market and the markets under consideration, specifically within the Western Balkans. The index is structured on a scale that ranges from 0, representing the most competitive market conditions (best), to 100, indicating the most distorted market conditions (worst), based on significant price differences (double of the EU market).

At the best side the spectrum, with a score of 0 on the proposed Market Competition Index, lies the EU home market where the international companies originate from – a quasi-ideal market characterized by high levels of competition, transparency, and consumer protection. In this market, prices are consistently aligned with the actual cost of production and the fair value of products, and any price discrepancies from other EU markets are minimal. Companies are incentivized to compete based on innovation, quality, and efficiency rather than on market power or price manipulation. Consumers in this environment have real bargaining power, with a wide range of choices, access to transparent information, and the ability to influence market dynamics through demand and even protests.

In such a market, government is vigilant to protect the consumer's interest. Its intervention is proactive and effective, ensuring that regulatory frameworks are in place to prevent abuse of market power, price manipulation, and monopolistic practices. Regulatory bodies actively monitor market conditions and swiftly intervene when necessary to enforce competition laws, promote fair pricing, and protect consumer interests. Political debates and electoral promises reflect a genuine concern for the market realities and the well-being of consumers, with a focus on creating fair, competitive markets. The market is dominated by many firms of varying sizes, none of which hold excessive market power, leading to a healthy and competitive business environment. This fosters efficiency, innovation, diversification, and market expansion, resulting in better quality products and services at competitive prices.

Civil society plays an active role in advocating for consumer rights, ensuring that these interests are represented in political discourse and driving the demand for market reforms when necessary. The media, independent and transparent, regularly highlights market issues and holds firms accountable for any unfair practices. As a result, the economy performs efficiently, providing widespread prosperity and improving living standards. This type of market structure not only promotes economic growth but also ensures that the benefits of such growth are widely distributed among the population.

At the extreme end of the spectrum, represented by a Market Competition Index score of 100 points, lies a hypothetical market characterized by a business environment that

accommodates large companies to operate with little to no competitive constraints. In this scenario, these companies charge prices that are, on average, twice as high as those for the same products sold by the same companies in their home EU markets. Consumers in this market are led to believe that they have little to no influence over pricing, as it is perceived to be dictated exclusively by the companies. The government institutions, operating under the assumption of a market-driven economy, refrain from intervening even when it is evident that consumers are being exploited.

In such a market, the dominance of a few large firms fosters the illusion of economic freedom and competition. However, these companies often engage in practices such as abuse of dominant market positions or collusion, which results in inflated prices for consumers. Consequently, a significant portion of household income is spent on consumer goods, leading to reduced economic welfare. While government institutions may exist, they rarely take action against such harmful practices, intervening only in selected cases, if at all. Civil society remains dormant in advocating for consumer rights, and political discussions including electoral promises fail to address the real issues of market distortions and the need for productive reforms. Media outlets, often dependent on the financial support of large corporations, are often indifferent to these market distortions, further contributing to the lack of accountability toward the society. As a result, the economy struggles to perform efficiently, and living standards, particularly for the middle class, steadily decline over time.

Is it possible for the index to exceed 100 points? Obviously, the answer is yes. According to the definition of the index, any value above 100 would indicate a market where prices, on average, are more than twice as high as the prices for identical products sold by the same company in the EU market. However, if a society has already accepted prices that are double the EU price, chances are it could also tolerate prices that are three or even four times higher. The societal response to such price increases might not change significantly, as the threshold for price tolerance has already been set at an excessive level well above the EU benchmark. Therefore, in this model, any value exceeding 100 points does not provide additional meaningful differentiation, as it would simply reflect further price escalation without a corresponding change in consumer behaviour or market dynamics. For this reason, the Market Competition Index is capped at a maximum of 100 points.

Calculation of the Market Competition Index.

Following the definition of the model, the Market Competition Index is determined by assessing the relative deviation of a product's price in each country, comparing it to the baseline price of the same product in the selected EU reference country, see equations (1) and (2). This calculation provides a measure of how much prices in the target market differ from the established EU benchmark, reflecting the level of competition in the market:

$$RD_{i,c} = (P_{i,c} - P_{i,eu}) / P_{i,eu}. \quad (1)$$

$$Market\ Competition\ Index_c = (1/n)\ \Sigma\ |RD_{i,c}|. \quad (2)$$

Where P_{i,c} is the price of product i in country c, and P_{i,eu} is the EU baseline price.

Limitations of the Model.

A word of caution regarding the proposed model: It represents *a* Market Competition Index, not *the* Market Competition Index. While this index is grounded in real market data and provides an accurate, and often disturbing reality of the current state of market failures in the countries analysed, along with the distortions that have been identified, its findings, are specific to the sector in which the companies in question operate—namely, international retail chains trading consumer goods. Although the competitive dynamics observed, at least in Albania, may share similarities with those in other sectors, particularly where market distortions are evident, the results of this index *should not be generalized* across the entire economy. Similarly, the index does not apply to sectors where competition is more robust and operates in a manner comparable to the EU, where hundreds of companies contribute to building national prosperity and market forces are more balanced and competitive.

Moreover, while gathering price data for products from individual companies requires significant effort, developing a more comprehensive and robust MCI would necessitate data collection from a broader range of market participants. Collecting such information from multiple operators is a challenging and time-consuming process, and in many cases, it may not even be feasible. Establishing a price observatory could be an effective tool to improve market transparency and efficiency, enabling more accurate and widespread data collection. Therefore, although this research highlights the widespread nature of price discrimination within the analysed sector, caution should be exercised before generalizing these findings to the broader economy.

The concept of "*ceteris paribus*" holding other factors constant—is central to economic analysis and underpins the logic of this research by focusing on identical products, sold by the same multinational company, across relatively similar economies of the Western Balkans (relative to the EU market). This methodological design ensures that the Market Competition Index captures distortions attributable primarily to competitive intensity, revealing distortions that macro-level indices often obscure. Such a setup isolates the role of market competition from other confounding factors by providing clarity and transparency, which is both a strength and an innovative contribution of the paper.

Despite these limitations, after all, The Economist's famed Big Mac Index demonstrates how the price of a single, standardized product, McDonald's Big Mac, sold by the same global operator can be harnessed to construct a powerful economic indicator. To paraphrase Samuel Johnson, even economic indexes "*…are like watches, the worst is better than none, and the best cannot be expected to go quite true*".

DATA COLLECTION

For the collection of price data, an international company with a long-standing presence across all the Western Balkans countries was identified. The parent company is based in a

European country, consistently ranked among the most competitive economies in the world in all the global rankings. The company operates an extensive network of branches throughout the Western Balkans and many other countries of the world, benefiting from strong brand recognition and a reputation for offering SKU-rich, high-quality products to consumers.

In April 3-12, 2025, by using online information available in the official websites of the company, price data was gathered for 100 products, using stratified purposive sampling from 10 broad categories of consumer goods that the company sells in all the Western Balkans countries—Albania, Montenegro, Bosnia and Herzegovina, North Macedonia, Kosovo, and Serbia. In addition to the prices in these markets, the same products' prices were also recorded in the company's home country and Greece, resulting in a total of 800 price entries included in the dataset for this analysis (all prices were collected in the same window across countries). All prices were in domestic currency and converted to Euro using daily exchange rates obtained from ECB for the corresponding collection period.

The product selection was based on the following criteria:

- An identical product criterion was applied, selecting items with the exact same product code and verifying their specifications to ensure complete feature equivalence.
- The products were available for sale in all eight countries considered in the index calculation.
- A diverse range of products was chosen to represent the typical assortment sold by the company.
- The products were selected from 10 broad categories of consumer goods, excluding luxury items.
- Products subject to special taxes, such as excise duties, were excluded.
- Products on promotional discounts were excluded from the analysis.
- Seasonal items were excluded from consideration.

In the next step, the prices were adjusted to account for VAT variations across the different countries, ensuring a level comparison of the actual market prices. Once the VAT adjustments were made, the deviation of each country's prices from the baseline set by the EU home country prices, for every product, was calculated. This step enabled a direct comparison of the price differences between the Western Balkans countries (and Greece) with the EU market, based on prices of the same products sold by the same company in its home country, offering insights into the extent of price distortions and competitive behaviour in the region.

FINDINGS

The analysis of price data across the Western Balkans in 2025 reveals significant price discrepancies for identical products sold by the same multinational company compared to its home market in the EU, see Table 2. After adjusting for VAT differences, prices in the

region average 47 percent and range from being lower to more than triple those in the home EU country of the company. In Albania, prices were the highest, averaging 89 percent more than in the EU home market, followed by Montenegro at 60 percent and North Macedonia at 46 percent; Kosovo registers a mid-range 37 percent markup, while Bosnia and Herzegovina (25 percent) and Serbia (23 percent) exhibit the smallest price differences, reflecting the closest alignment with EU pricing.

Table 2. Price differences between Western Balkans, Greece and the EU markets

Price differences between the Western Balkans and Greece, with the EU market.	**Greece**	**Albania**	**Kosovo**	**Serbia**	**Montenegro**	**North Macedonia**	**Bosnia and Herzegovina**
Minimal price difference from EU	-46%	18%	-26%	-33%	-73%	-19%	-32%
Maximum price difference from EU	115%	257%	158%	166%	341%	184%	158%
Average price difference from EU	15%	89%	37%	23%	60%	46%	25%
Mean price difference from EU	13%	87%	32%	16%	46%	42%	19%
Standard deviation	0.279	0.479	0.342	0.319	0.642	0.365	0.305
Share of products with local price lower than the EU	31%	0%	12%	21%	5%	3%	10%
Share of products with local price more than *double* the price of the EU	2%	34%	5%	4%	19%	11%	4%

Albania

The analysis of the price data for Albania shows that, after normalizing for VAT differences, the prices of products in Albania are, on average, 89 percent higher than those of the same products sold by the same company in its home country, with a mean difference of 87 percent and a standard deviation of 0.48. No products were sold in Albania at prices lower than those in the company's home country. About 34 percent of the products were priced in Albania at more than double the price of the same products in the home country, see Figure 2.

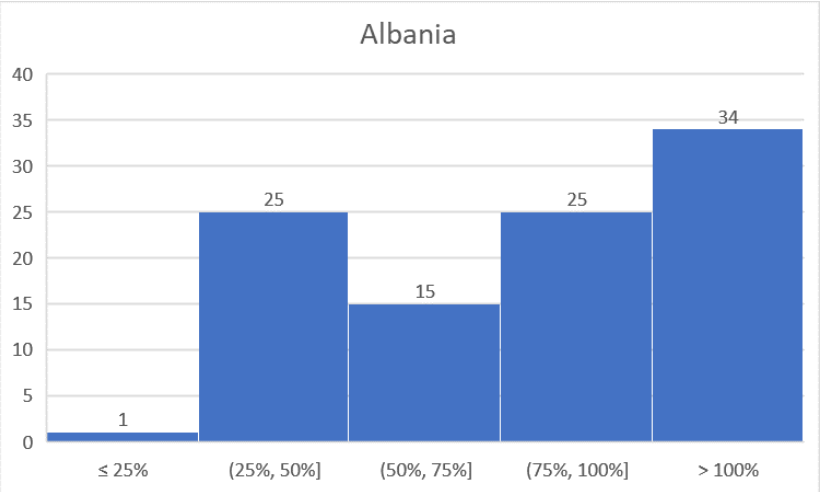

Figure 2. Distribution of price differences in Albania

Bosnia and Herzegovina

The analysis of the price data for Bosnia and Herzegovina shows that, after normalizing for VAT differences, the prices of products in Bosnia and Herzegovina are, on average, 25 percent higher than those of the same products sold by the same company in its home country, with a mean difference of 19 percent and a standard deviation of 0.31. About 10 percent of the products were sold in Bosnia and Herzegovina at prices lower than those in the company's home country. About 4 percent of the products were priced in Bosnia and Herzegovina at more than double the price of the same products in the home country, see Figure 3.

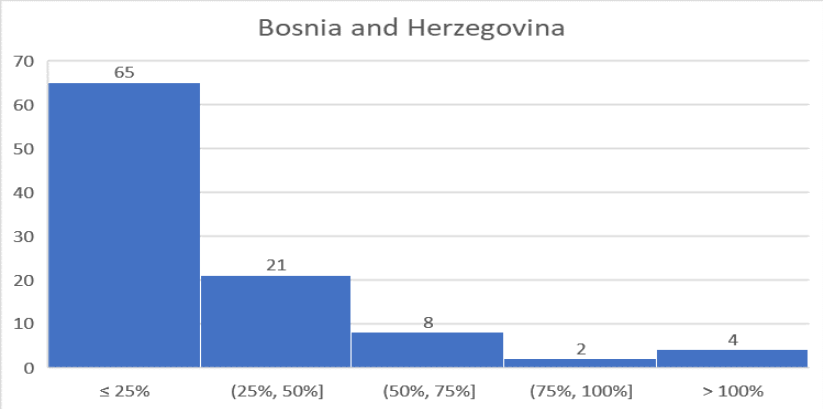

Figure 3. Distribution of price differences in Bosnia and Herzegovina

Kosovo

The analysis of the price data for Kosovo shows that, after normalizing for VAT differences, the prices of products in Kosovo are, on average, 37 percent higher than those of the same products sold by the same company in its home country, with a mean difference of 32 percent and a standard deviation of 0.34. About 12 percent of the products were sold in Kosovo at prices lower than those in the company's home country. About 5 percent of the products were priced in Kosovo at more than double the price of the same products in the home country, see Figure 4.

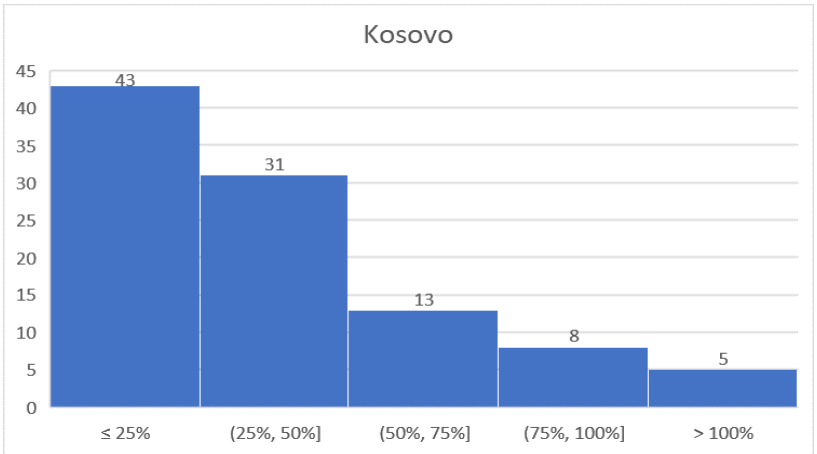

Figure 4. Distribution of price differences in Kosovo

Montenegro

The analysis of the price data for Montenegro shows that, after normalizing for VAT differences, the prices of products in Montenegro are, on average, 60 percent higher than those of the same products sold by the same company in its home country, with a mean difference of 46 percent and a standard deviation of 0.64. About 5 percent of the products were sold in Montenegro at prices lower than those in the company's home country. About 19 percent of the products were priced in Montenegro at more than double the price of the same products in the home country, see Figure 5.

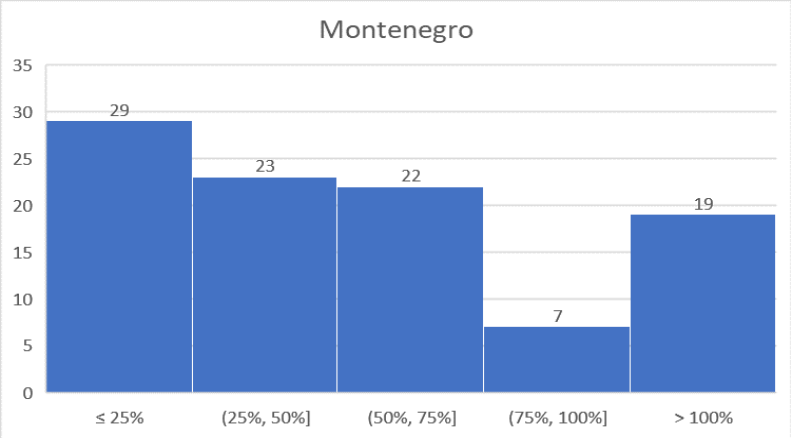

Figure 5. Distribution of price differences in Montenegro

North Macedonia

The analysis of the price data for North Macedonia shows that, after normalizing for VAT differences, the prices of products in North Macedonia are, on average, 46 percent higher than those of the same products sold by the same company in its home country, with a mean difference of 42 percent and a standard deviation of 0.36. About 3 percent of the products were sold in North Macedonia at prices lower than those in the company's home country. About 11 percent of the products were priced in North Macedonia at more than double the price of the same products in the home country, see Figure 6.

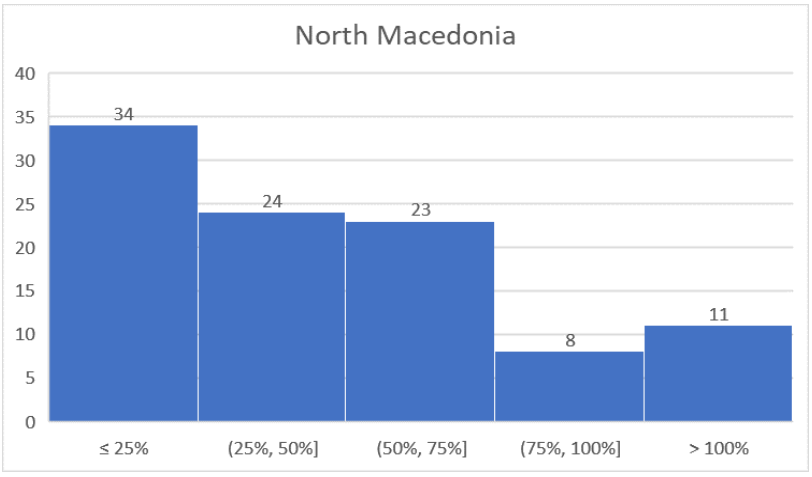

Figure 6. Distribution of price differences in North Macedonia

Serbia

The analysis of the price data for Serbia shows that, after normalizing for VAT differences, the prices of products in Serbia are, on average, 23 percent higher than those of the same products sold by the same company in its home country, with a mean difference of 16 percent and a standard deviation of 0.32. About 21 percent of the products were sold in Serbia at prices lower than those in the company's home country. About 4 percent of the products were priced in Serbia at more than double the price of the same products in the home country, see Figure 7.

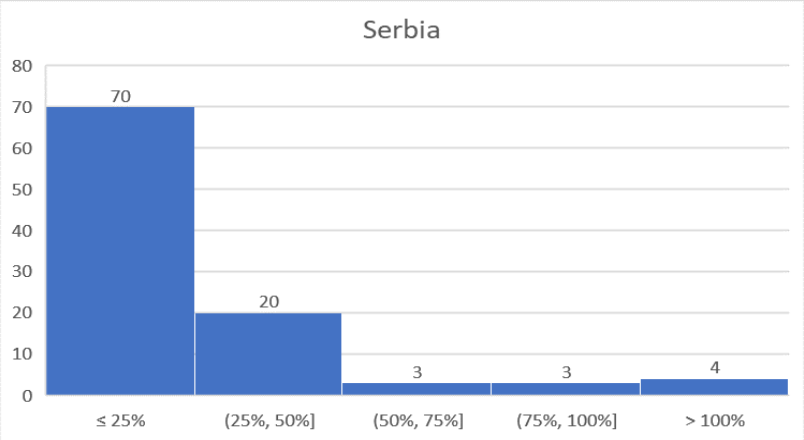

Figure 7. Distribution of price differences in Serbia

Greece

The analysis of the price data for Greece shows that, after normalizing for VAT differences, the prices of products in Greece are, on average, 15 percent higher than those of the same products sold by the same company in its home country, with a mean difference of 13 percent and a standard deviation of 0.28. Approximately 31 percent of the products were sold in Greece at prices lower than those in the company's home country. Only 2 percent of the products were priced in Greece at more than double the price of the same products in the home country, see Figure 8.

The average 15 percent difference indicates a normal price variation in Greece, with the majority of products relatively well aligned with the pricing in the company's home market. Price variations within this range (±20 percent) for consumer goods are typical and acceptable to consumers in the EU, serving as an indicator of a competitive business environment within the EU market.

These findings are particularly important for the research because they validate that transport costs, which are often cited as a factor due to the geographic distance from the home EU country, do not contribute substantially to the price disparities commonly observed in some of the Western Balkan countries. The finding supports the theme of the research that the primary determinant of price differences in these markets is the level of competition in the market. Competition or the lack thereof plays a more powerful role in shaping pricing strategies than cost factors, including transportation costs.

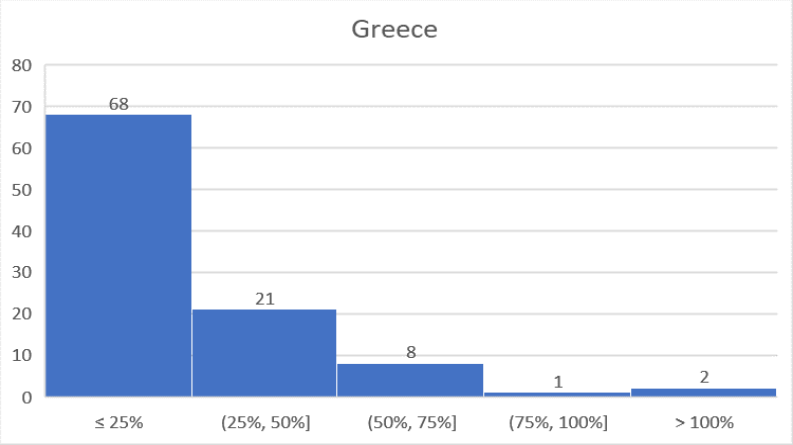

Figure 8. Distribution of price differences in Greece

MARKET COMPETITION INDEX FOR THE WESTERN BALKANS: RESULTS AND FINDINGS FOR 2025

Based on the established definition and calculation for the Market Competition Index in the Western Balkans, and incorporating price data collected in 2025 from all countries in the region, the results for 2025 are presented in the Figure 9. The index value for each country represents the average price difference between products sold by an EU-based company in the local market and the same products sold in the company's home country within the EU.

In 2025, the Market Competition Index (MCI) reveals a clear gradient of competitive intensity across the Western Balkans: Albania tops the ranking with the largest average price deviation from EU benchmark (89 points), followed by Montenegro (60 points) and North Macedonia (46 points); Kosovo occupies a middle position (37 points), while Bosnia and Herzegovina (25 points) and Serbia (23 points) record the smallest deviations, indicating the strongest alignment with EU pricing and, by extension, the most competitive local markets.

A comparison between the MCI and the OECD Economic Convergence Scoreboard (Business Environment Cluster) [8] reveals both areas of alignment and notable divergence. According to the OECD report (EU = 100%), Montenegro (80%) and Kosovo (76%) lead the Western Balkan economies in business environment convergence with the EU, followed by Serbia (64%), North Macedonia (61%), Bosnia and Herzegovina (58%), and Albania (56%). In contrast, the MCI results portray a different competitive landscape at the micro level: Serbia and Bosnia and Herzegovina record the lowest MCI values—indicating higher price competitiveness while Albania and Montenegro show the largest deviations from EU price benchmarks, implying weaker retail competition. It's important to note that OECD scores are reported on a convergence index (EU=100%), while MCI is a price-deviation measure (0–100 cap). The scales are not directly comparable and capture different constructs.

This divergence highlights an important analytical distinction between macro-level institutional performance and market-level competitive outcomes. While OECD convergence scores primarily reflect regulatory quality, institutional efficiency, and policy reforms, the MCI isolates consumer-side competition, measuring how effectively these institutional improvements translate into actual market pricing behaviour. The inconsistency between the two datasets suggests that strong institutional frameworks do not necessarily guarantee competitive consumer markets, and conversely, that some economies with slower regulatory convergence (such as Serbia) may still exhibit more competitive retail pricing. This finding reinforces the importance of combining macro and micro indicators to obtain a more complete picture of economic convergence and market functionality in the Western Balkans.

Figure 9. Market Competition Index for the Western Balkans, 2025 results

THE BURDEN INDEX FOR THE WESTERN BALKANS 2025

To quantify the extent to which price differences impact consumers in each country, relative to their income and purchasing power, the Market Competition Index is supplemented by the proposed Burden Index. This additional measure provides information how price disparities not only affect consumer spending but also how they are experienced in the context of the local economic conditions, ensuring a more comprehensive assessment of the market's impact on consumers.

Using the latest available dataset from Eurostat (2023) the Purchasing Power Index of the Western Balkans countries relative to the EU average measured as each country's GDP per capita in Purchasing Power Standards [12] is shown in the following table 3. The Burden Index (Figure 10) is determined by calculating the ratio of the Market Competition Index to the Purchasing Power Index for each country (Burden Index = MCI / PPI). This ratio is then normalized on a scale from 0 to 100 and provides a measure that reflects the

impact of price differences on consumers in relation to their purchasing power. This normalization enables meaningful comparison of consumer strain relative to income levels across economies.

Table 3. Purchasing Power Index 2023 [12] and the calculated Burden Index 2025 for the Western Balkans countries

Country	PPI relative to EU average (2023 GDP per capita in PPS)	The Burden Index 2025 (normalized 0-100)
Albania	36%	**100**
Bosnia and Herzegovina	36%	**28**
Kosovo	28%	**53**
Montenegro	52%	**47**
North Macedonia	42%	**44**
Serbia	49%	**19**

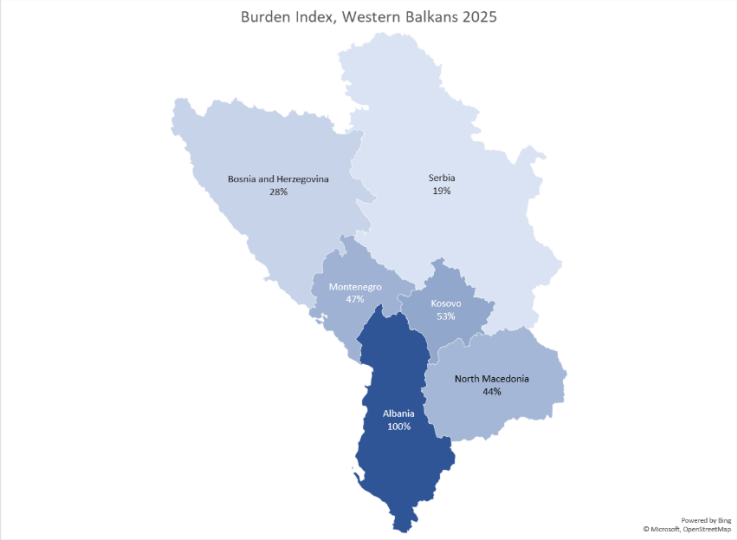

Figure 10. Burden Index for the Western Balkans, 2025 results

SUMMARY AND CONCLUSIONS

The research introduces a novel, data-driven Market Competition Index (MCI) specifically designed for the Western Balkans, a region often omitted from major global competitiveness assessments. By directly comparing cross-country price data for identical products sold by the same European companies, it delivers real-market insights particularly useful for the EU integration reforms undertaken by the countries in the region.

Across the region's consumer-goods retail sector, identical products display average price markups ranging from modest levels, comparable to intra-EU variations, to nearly 100 percent above the EU home-market prices. Such distortions impose a particularly heavy burden on middle-class households and particularly in the lower-income countries of the region.

By normalizing all prices for VAT differences and demonstrating, through the Greece case comparison, that transport costs play a negligible role, the analysis confirms that variations in local competitive intensity are the primary explanation for the observed price gaps from the EU markets. Markets with weaker rivalry diverge most sharply from EU benchmarks.

Even well-known multinational firms exploit weak competitive environments, through collusion or abuse with de facto micro-monopoly positions, to enjoy higher margins. Albania's market, demonstrates that pervasive price distortions are present in several cases across the retail sector and not confined to individual companies.

While the research focuses on consumer goods, the failures observed signal broader vulnerabilities in the business and regulatory frameworks. Sector-specific distortions can spill over outward, undermining competition in other sectors unless structural reforms are undertaken.

Although further analysis is required to explore the underlying factors, the results of the MCI likely reflect more diversified economies, greater domestic production, higher consumer awareness, larger urban markets, active civil-society engagement and more robust enforcement of competition and consumer protection laws as key factors for competitive dynamics in the region.

The observed divergence between the MCI and broader institutional indices underscores a fundamental analytical distinction between macro-level policy convergence and micro-level market performance. The MCI captures a different dimension of competitiveness namely, the extent to which consumers benefit from effective competition in the market.

The MCI provides governments and regulators with a robust, real-market framework to measure competition levels continuously and to monitor the impact of consumer-protection and competition-policy reforms. The Burden Index reveals that excessive retail prices in lower-income countries deliver the greatest toll on household finances. Closing the price gaps is therefore both a consumer-protection priority and a necessary step toward EU single-market alignment and sustainable economic convergence.

Although the MCI was developed in the context of the Western Balkan economies, its methodological framework lends itself to broader application across diverse economic and policy environments. The central premise of the MCI—the comparison of identical goods sold by the same company across multiple jurisdictions, holding other variables constant—makes it a highly adaptable tool for analysing price competitiveness, market efficiency, and consumer welfare in various sectors and regions.

In the European Union, the MCI could serve as a complementary monitoring mechanism to existing policy instruments such as the European Semester and Single Market Scoreboard, providing micro-level evidence of how effectively competition rules are reflected in consumer prices across Member States. This would allow policymakers to identify markets or sectors where high prices persist despite regulatory alignment, indicating potential barriers to entry, insufficient cross-border integration, or anti-competitive practices.

At a sectoral level, the MCI methodology could be tailored to specific industries—such as energy, telecommunications, pharmaceuticals, or food retail—to track competition intensity within and across countries. In these cases, the MCI could reveal whether liberalization and privatization policies have resulted in meaningful price convergence or whether structural bottlenecks continue to constrain consumer choice and affordability.

Furthermore, the MCI's transparency and data-driven nature make it suitable for longitudinal studies, allowing researchers to monitor the impact of policy reforms or external shocks (such as global supply disruptions or inflationary cycles) on competitive dynamics over time. When combined with macroeconomic indicators, it can also inform policy evaluation frameworks, helping to assess whether improvements in institutional quality are mirrored by tangible benefits at the consumer level.

Looking forward, the MCI's adaptable structure allows its application beyond the Western Balkans. The MCI could be applied in emerging and developing economies undergoing market liberalization. For instance, it could be used to assess the degree of market openness following trade agreements, foreign investment inflows, or deregulation measures. The same approach could also be valuable in regional trade blocs such as ASEAN, MERCOSUR, or the African Continental Free Trade Area etc., where formal integration does not always guarantee competitive outcomes in consumer markets.

RECOMMENDATIONS

The main recommendations are as follows:

- Strengthen laws governing market-power abuse, introduce stronger penalties for collusive behaviour and expand mandates and resources for national competition and consumer protection agencies to investigate pricing practices, collusion, and abuses of dominant positions.
- Each country should adopt competition and consumer protection laws not copy-pasted or AI-ed from the EU acquis, but tailored specifically to the context and realities of the Western Balkans.
- The legislation must empower authorities to impose swift provisional remedies and levy penalties calibrated to regional turnover. Such measures, backed by modern data-analysis capabilities and consumer-driven complaint portals, will give regulators the tools they need to deter abusive pricing and bring local markets into closer alignment with EU single-market standards.

- Establish a permanent multi-firm and multi-sector Price Observatory for all the countries to collect, publish, and analyse real-time retail pricing data across sectors.
- Competition and consumer protection authorities across Albania, Kosovo, Bosnia and Herzegovina, North Macedonia, Montenegro and Serbia must further cooperate to root out cross-border price discrimination cases within the region. By sharing intelligence, harmonizing investigative processes and coordinating simultaneous inquiries when discrepancies emerge, these institutions can close the regulatory gaps that enable firms to arbitrage prices between neighbouring markets and the EU.
- Encourage large retailers to disclose price components (e.g., import/logistics costs vs. margin) to foster transparency.
- Streamline licensing, further reduce red tape and promote competition for new market entrants—particularly local SMEs—to dilute incumbent dominance.
- Offer fiscal incentives to small and mid-sized companies and specialty retailers committing to expand into underserved areas.
- Launch EU-aligned campaigns and digital platforms that compare local vs. EU benchmark prices, enabling consumers to make in real-time informed choices.
- Support independent consumer-rights NGOs and media investigations into price distortions in the regional market.
- Harmonize competition and consumer protection policy enforcement across the Western Balkans—through CEFTA or a dedicated regional forum.
- Embed competition and consumer protection policy milestones (e.g., target price-gap reductions) into each country's EU accession roadmap and negotiations, and leverage EU technical assistance for implementation.
- Further invest in infrastructure, R&D grants, and start-up incubators to broaden the economic base and spur innovation—key drivers of competitive pricing.
- Attract FDI by showcasing improved regulatory certainty and market transparency, by increasing competitive pressure on market incumbents.
- Support consumer-advocacy groups to conduct market studies and publicize findings.
- Encourage independent journalism on competition and consumer protection issues, reducing reliance on corporate advertising and promoting accountability.
- Engage universities and research institutes through collaborative studies, data-sharing agreements and joint training programs to bolster the methodological rigor of price monitoring and index refinement.
- Pilot real-time price observatories and open-data platforms through academic–government institutions partnerships, ensuring transparent, independent analysis and continuous policy innovation.
- Enhance future iterations of the MCI through the integration of firm-level and transactional data, allowing for a more granular understanding of market behaviour across different industries and product categories. Incorporating such data would enable the index to capture intra-sectoral variation and identify market segments where competitive distortions are most pronounced.

- Support the application of machine learning and econometric techniques—such as clustering algorithms, time-series forecasting, or price elasticity modelling—helping to uncover underlying patterns and causal relationships between policy reforms, market structure, and price outcomes.
- Expand the MCI framework to include dynamic and temporal dimensions improving its capacity to monitor the evolution of competition over time and providing early warnings of market concentration or consumer vulnerability.
- Establish data partnerships with statistical agencies, consumer observatories, and international organizations to strengthen the methodological robustness and policy relevance of the index, ensuring that it remains a practical, evidence-based tool for evaluating the effectiveness of competition policies both within and beyond the Western Balkans.
- Apply the MCI methodology to other geographic regions and sectors particularly developing economies, or industries, clusters and sectors like energy and telecommunications to assess cross-market competitiveness and measure how policy reforms influence price convergence and consumer welfare across different economic contexts.
- Publish the MCI annually through a regional price observatory to institutionalize its use as a policy benchmark.

CONFLICT OF INTERESTS

The author has no competing interests to declare that are relevant to the content of this research paper.

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