CEE: A Business-Smart Region

A Study of the Diverse and Expanding Drivers Shaping CEE's Growth Path

KEY TAKEAWAY ADVANTAGES OF DOING BUSINESS IN CEE:

A business-friendly environment, with lower tax rates and employment costs than Western Europe;

GDP growth rates that have surpassed those of Western Europe and in 2024–2028 are forecast to grow twice as fast as the EU-27 average;

Significant and ongoing EU inflows for infrastructure investments (road, rail, air, water), which will further boost market connectivity and economic growth;

A robust manufacturing base with increasing complexity and diversity of local economies focused on innovation, digital transformation and knowledge-based, added-value activities;

Rising domestic consumption and higher growth of e-commerce sales than in Western Europe;

A skilled, cost-effective workforce at all levels of education, with world-class universities that support R&D and the growth of high-tech business ecosystems.

EXECUTIVE SUMMARY

Central and Eastern Europe ("CEE") is well positioned to become the "Made in Europe" hub for the 21st century.[1] The region's business-smart advantages include lower costs and better opportunities for greenfield developments than in Western Europe.

The fundamentals that have made CEE successful since the start of the millennium—strategic location, skilled labour, developed infrastructure and lower costs—are attracting a growing wave of companies from around the world seeking to nearshore supply chains to service their European customers, particularly in tech-intensive and knowledge-based industries.

1 The term "CEE" as used in this paper covers seven countries in the region where CTP is active: the Czech Republic, Slovakia, Romania, Hungary, Poland, Serbia, and Bulgaria.

In the face of geopolitical headwinds and ongoing macroeconomic instabilities, CEE economies continue to demonstrate their resilience and favourable growth potential in comparison with Western Europe. The region offers numerous opportunities for investors, with GDP growth performance above the European Union ("EU") average, rising domestic consumption, the expansion of e-commerce sales at faster rates than in Western Europe, and growing capital cities that attract global talent.

This research report analyses five success factors that make CEE a business-smart region:

1. Skilled human capital;
2. Connected markets;
3. Diversifying and expanding economies;
4. Rising domestic consumption;
5. Strong real estate fundamentals.

1. SKILLED HUMAN CAPITAL

The cornerstone of CEE's success is its people. The region boasts a well-educated workforce, with a strong educational system, deep industrial traditions, and labour costs below the Western European average.

Competitive labour market and tax rates

In the industrial & logistics ("I&L") sector in CEE, net labour costs (including taxes minus subsidies) are one-fourth of those incurred in Western Europe *(Figure 1)* **(1).**[2] The average number of weekly working hours in the I&L sector in CEE surpasses the EU-27 average **(2) (3).** The region's robust work ethic is reinforced by lower rates of personal income tax and social charges than in Western Europe *(Figure 2)* **(4).** While productivity rates are rising, particularly in Bulgaria and the Czech Republic, labour costs in CEE remain well below the EU average **(5) (6).**

The I&L and high-tech sectors are well represented

All CEE countries rank among the top ten European nations with the highest proportion of employment in the manufacturing sector *(Figure 3)* **(7).** The proportion of employment in the I&L sector in CEE capital cities is notably greater compared to their Western European counterparts **(8).**[3] The highest share of manufacturing employment can be found in Bratislava (12.1%), Warsaw (7.4%), and Budapest (7.2%), while the CEE capitals with the highest shares of employment in logistics are Warsaw (8.0%), Bucharest (7.3%), and Sofia (6.6%) **(8).** CEE capital cities also have some of the highest percentages of total employment in the high-tech sector in the EU, including high-tech manufacturing (9). Budapest (13.5%), Bucharest (11.3%), Prague (11.2%), Bratislava (10.7%), Sofia (9.9%), and Warsaw (8.7%) surpass EU averages and are leading EU regions in terms of employment in high-tech sectors **(9).**

Educated and international workforce

Romania (29.3%) and Serbia (29.8%) have, together with Germany (35.1%), one of highest shares of Science, Technology, Engineering, and Mathermatics ("STEM") students in Europe **(10).** As career opportunities in the region continue to grow, young professionals are returning from Western Europe and North America to CEE—this is considered a "reverse brain drain" **(11).** The 2023 English Proficiency Index rankings of all CEE countries (Serbia not available) are high, surpassing those of France, Italy and Spain, with only some Western European countries (the Netherlands, Germany, Austria) achieving scores slightly higher than those of the CEE countries **(12).**

2 Labour cost levels by NACE Rev. 2 activity including employers´ social security contributions and taxes minus subsidies received. Data is from 2022. Western European average includes Germany, France, Belgium, the Netherlands (data only for 2021), Luxembourg and Austria and excludes Switzerland as there was no data available.

3 Data for Belgrade not available.

Figure 1. **Competitive net labour costs (1)** [2]
Net labour costs (including taxes minus subsidies), I&L, €/hr, 2022

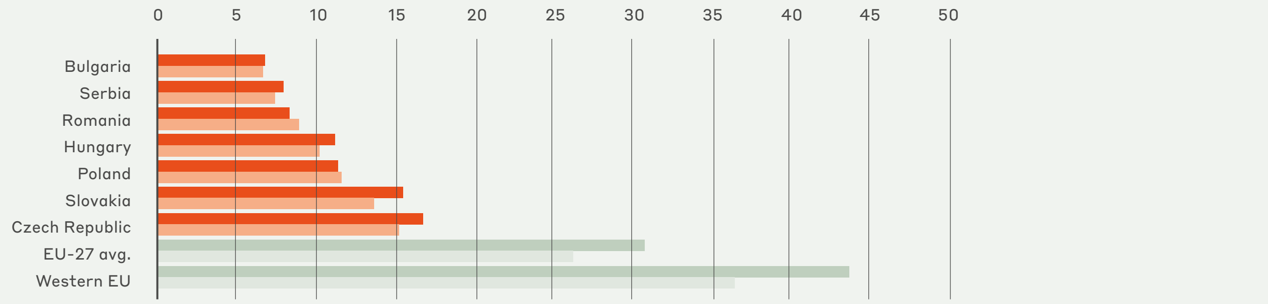


Figure 2. **Personal income tax rates in CEE and EU-27 (4)**

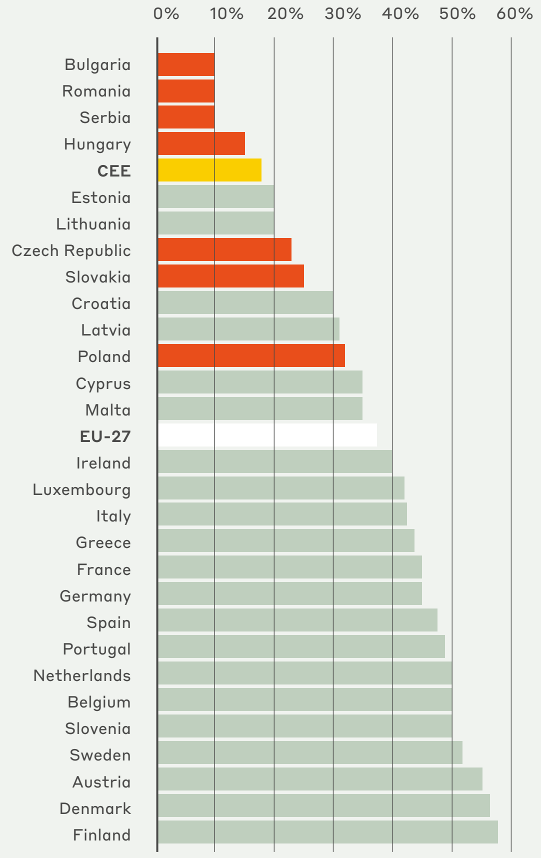
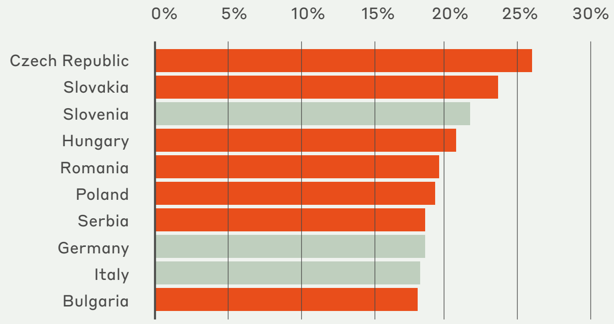


Figure 3. **Manufacturing employment well represented (7)**
Top ten countries with the highest share of manufacturing employment as % of total employment in Europe, 2022



2. CONNECTED MARKETS

CEE countries continue to build on their advantage of strategic location adjacent to more mature Western European consumer markets, with significant ongoing infrastructure investments to strengthen market connectivity.

Infrastructure investments
Since the 2000s, infrastructure expansion in CEE has significantly improved the seamless movement of goods within the region and between CEE and Western Europe, with a particular focus on road infrastructure *(Figure 4).* Within the same timeframe, the length of motorways in CEE (excl. Serbia) grew 276%, while growth in Western Europe was 16% *(Figure 5)* **(13).**[4] Overall road network density in CEE continues to improve substantially **(14) (15).** An International Monetary Fund study on infrastructure investments in CEE reveals significant benefits, indicating that for every percentage of GDP allocated to infrastructure in CEE, there is a potential 2%–3% increase in output over the subsequent decade **(16).** This underpins the region's positive growth trajectory, as the CEE countries, together with the EU, plan substantial new investments in infrastructure. A prime example is the Trans European Transport Network ("TEN-T"), which envisions extensive improvements and extensions to existing road, rail, airport and water infrastructure across the EU during the next decades **(17) (18).**

Advancements in air and maritime transportation are gaining momentum
Although air connectivity in CEE countries currently lags behind Western Europe, there has been noticeable improvement over the past decade, evidenced by the higher rate of increase in air passenger transport in CEE countries compared to Western Europe **(19).** Moreover, since the Covid-19 pandemic, air passenger transport is recovering faster in CEE compared to the European average. Significant investments in airports across the region continue, for example the planned new national airport in Poland, CPK, near Warsaw. The importance of CEE seaports within the European Union also continues to grow, with Gdańsk (Poland), Koper (Slovenia), and Constanta (Romania) emerging as major European container ports rivaling North Sea peers. This is evident in their substantial increases in cargo handling over the past decade, with the three CEE ports ranking among the five fastest-growing seaports in the EU, showcasing their competitiveness on a European scale **(20) (21) (22).**

CEE is the hub for nearshoring European supply chains
The need to mitigate geopolitical and macroeconomic risks is driving the nearshoring trend, where supply chains are relocated to be closer to final customers. CEE is already highly ranked as a nearshoring and "Made in Europe" hotspot, based on several factors, including the region's mix of a strong manufacturing base; innovation capabilities; dedication to digital transformation; strong tech and IT sectors; location close to Western Europe; developed infrastructure; cost-effective and skilled labour; and low tax rates. In a survey done in 2022 among European companies of likely destinations for nearshoring conducted by international shipping and logistics major MAERSK, Poland ranked in first place, and Romania and Czech Republic were among the global top ten **(23).**

Economic catchment areas
Major population centres in CEE and strategic locations near national borders have access to large consumer bases. A good example is the economic catchment area in Western Poland, which borders Germany and allows companies to service a consumer base of over 21 million people within a five-hour drive **(24).** This connectivity creates strong demand for warehouse space from (online) retailers. Another example of a connected market is Bucharest (Romania), which has become a central I&L hub for the wider region, servicing supply chains and customers from Turkey to Western Europe **(25) (26) (27).**

4 Data for Serbia not available.

Romania and Bulgaria take major step toward joining the Schengen Area in 2024
Market connectedness in CEE is further increasing with the partial admission of Romania and Bulgaria into the EU's border-free Schengen Area as of 31 March 2024, following the removal of air and naval border controls from this date forward **(28).** While the decision on the removal of passport controls at land crossings with the two countries has not yet been made, their partial membership in the Schengen Area has been hailed by EU and local political leaders as a significant milestone toward full membership that will greatly facilitate air and sea transport between the two countries and other members of the Schengen Area **(28).**

Romania reaches the milestone of 1,000 km of high-speed motorways
In September 2023, Romania reached the milestone of 1,000 km high-speed motorways and expressways with the completion of a challenging segment of the A3 motorway, known as the Transylvania highway, linking the capital, Bucharest, with the western part of the country and further to Western Europe **(29).** Motorway construction in Romania, which started in 1967, has lagged behind most other European countries since the 1990s but has increased significantly since the country's accession to the EU in 2007 **(29).** As of end-2023, over 750 km of new motorways in Romania are currently contracted with builders after tenders, with an additional 95 km being prepared for tender **(30).**

Figure 4. **High infrastructure investments (14) (15)**
Total inland investments, as % of GDP, 2015-2021 avg.

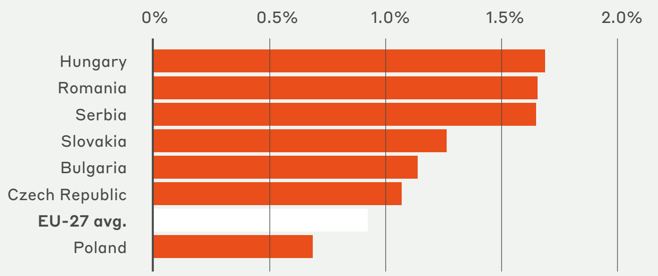
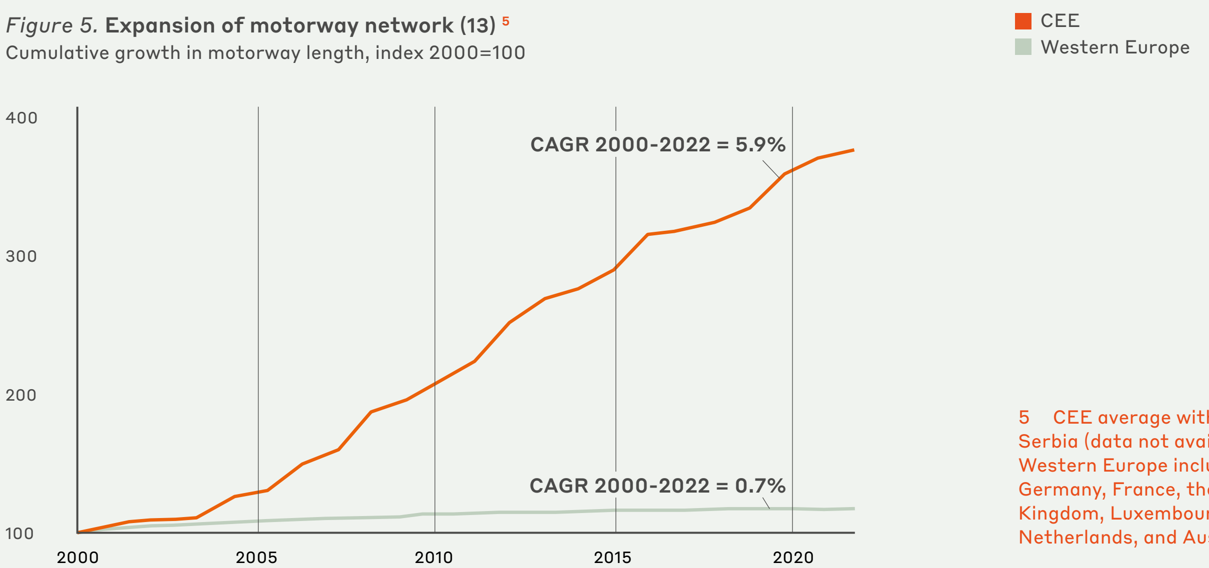


Figure 5. **Expansion of motorway network (13)** [5]
Cumulative growth in motorway length, index 2000=100



5 CEE average without Serbia (data not available). Western Europe includes Germany, France, the United Kingdom, Luxembourg, the Netherlands, and Austria.

3. DIVERSIFYING AND EXPANDING ECONOMIES

The diversification and growth of CEE economies continue at a faster rate than in Western Europe driven by several factors, including the resilience of the region's business-smart fundamentals and the increasing importance of innovation and the knowledge economy.

Economic resilience
Since the start of the millennium, CEE economies have grown significantly *(Figure 6)*, with real GDP growth outperforming Western European markets and the EU-27 average *(Figure 7)*. Together with the region's business-smart fundamentals *(see Section 1)*, growth drivers include continued economic liberalisation and reforms; significant levels of foreign direct investment ("FDI"); substantial EU subsidies, particularly for transport infrastructure development; lower rates of taxation compared to Western Europe; and the shift in output toward innovation and the knowledge economy. Underscoring the region's economic resilience, growth in real GDP in CEE for the 2024–2028 period is forecast to be twice as fast as the eurozone average *(Figure 8)* **(31)**.

Outperformance at the city level
CEE capitals are forecast to outperform the GDP growth rates of their Western European peers during 2024–2028 *(Figure 9)* **(32)**. According to Oxford Economics, the three fastest-growing cities in the EU with a population above one million are all in CEE (Belgrade, Prague, Warsaw) **(32)**. CEE has been a long-standing net receiver of FDI inflows, and according to FDI Intelligence, CEE cities score particularly well on cost effectiveness and business friendliness **(33)**.

Strong manufacturing base
CEE's reputation as a strong manufacturing base dates to the Habsburg Empire. In 2022, CEE (excl. Serbia) exported over €430 billion of "machinery and transport equipment", which is almost 19% of the EU-27 total for the year **(34)**.[6] The significance of CEE as a manufacturing hub is on the rise, considering that this share was 14% in 2012 **(34)**.

6 SITC7, Machinery and transport equipment.

Figure 6. **Size of CEE Economy (31)**
Real GDP growth, €B, 2023-2028 forecast

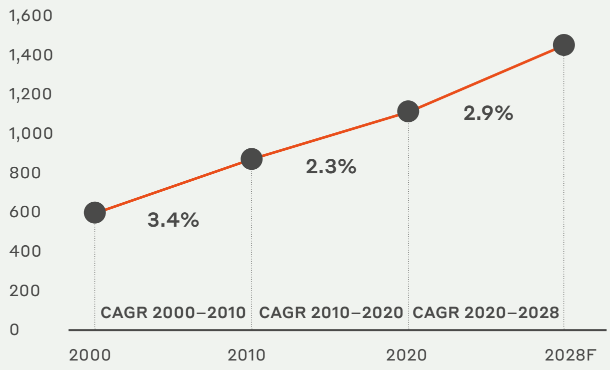


Figure 8. **Real GDP growing twice as fast between 2024–2028 (31)**
Cumulative growth in real GDP, index 2008=100

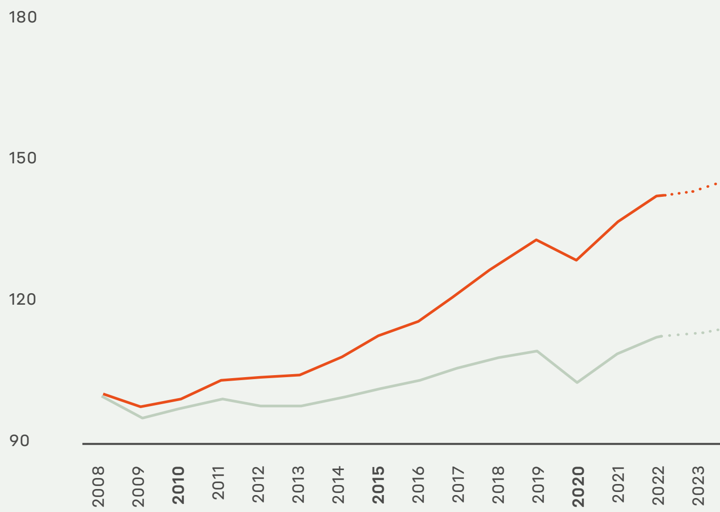


Figure 7. **Economic outperformance (31)**
Real GDP growth comparison, historic and outlook, CAGR %

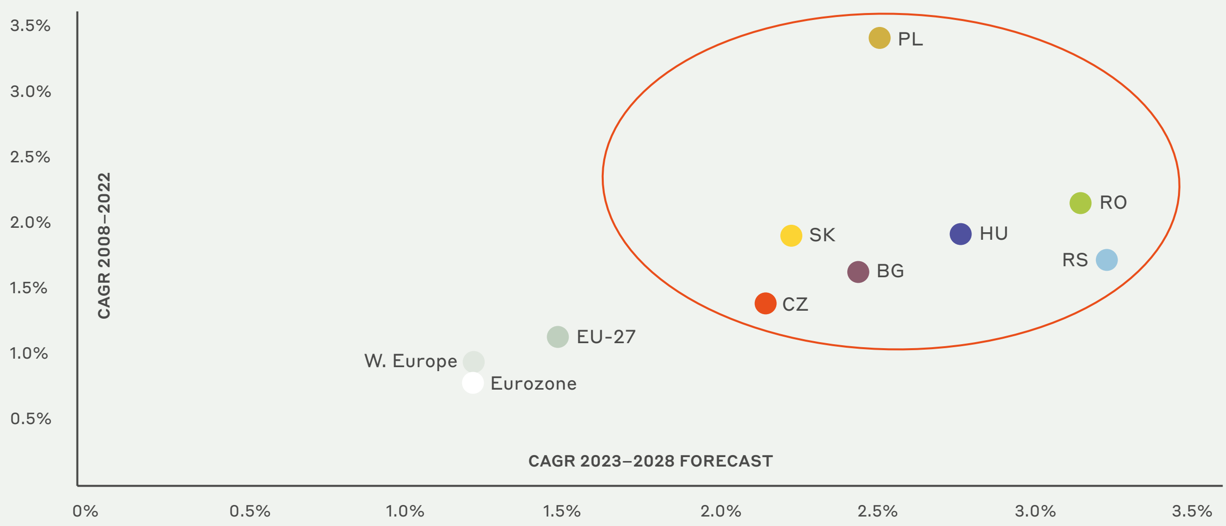
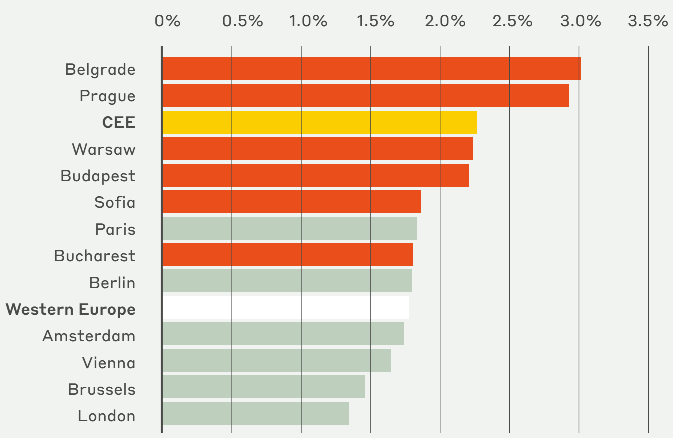


Figure 9. **CEE capital cities leading Europe (32)** [7]
GDP growth in 2024–2028 in Western European vs. CEE capital cities with a population >1 million, CAGR % [8]



7 Population threshold as of December 2022. Bratislava has a population <1 million and therefore is not included.

8 Western European capital cities include Berlin, Paris, Brussels, Amsterdam, Vienna, and London.

Diversifying economy

Economic development requires the accumulation of productive knowledge and its application in increasingly complex industries. Although the pace of economic diversification varies, CEE economies have evolved over time into knowledge-based economies. This is evidenced in the economic complexity index prepared by Harvard University **(35)**. Out of the 133 countries surveyed, the Czech Republic holds the sixth and Hungary the eleventh position. Over the past two decades, most CEE countries have made noteworthy improvements **(35)**. Countries improve their scores by their capacity to manufacture and export an increasing number of products with greater complexity **(35)**.

Capability to innovate

CEE in recent years has become a hub of innovation in Europe and is now considered a hotspot for high-tech intensive industries **(36)**. For example, in electric vehicle ("EV") battery manufacturing, Poland and Hungary are already Europe's second- and third-largest producers, with further growth forecast by 2030 **(37)**. The decision by carmaker Volvo to invest €1.2 billion in a new EV factory in Košice (Slovakia) and a new software development centre for EVs in Krakow (Poland) are examples beyond traditional production **(38) (39)**. Recent data shows that the region ranks highly in IT competitiveness and that businesses are implementing digital transformation at fast rates **(40) (41)**.

Low public debt ratios

The average debt-to-GDP ratio of the CEE countries (50%) is significantly below the EU-27 average (85%) **(42)**.[9] The low debt-to-GDP ratio is also reflected in the credit ratings of CEE countries, which have been improving over time. The Czech Republic, which is rated Aa3 by Moody's, now has the same rating as Belgium and the United Kingdom. Moody's also rates Poland (A2) and Slovakia (A2), ahead of other European countries like Spain (Baa1), Portugal (A3) and Italy (Baa3) **(43)**.

4. RISING DOMESTIC CONSUMPTION

Rising domestic consumption continues to fuel the growth of CEE markets driven by increasing amounts of disposable income, which is reflected in e-commerce growth rates that are faster than in Western Europe.

Growth in disposable income

Fuelled by economic expansion, domestic consumption (measured by real expenditure per capita) in CEE has grown by almost 70% since 2010, which is almost double the rate of the EU-27 average *(Figure 10)* **(44)**.[10] According to Eurostat data, since 2011 the growth of disposable income of private households at the regional level has been highest in CEE, with the Bucharest (+91.7%), Sofia (+55.5%), and Warsaw (+47.2%) regions at the top of this European ranking **(45)**.

Continued growth of e-commerce

E-commerce penetration across the CEE region has expanded consistently since 2010 and is now closing the gap with the EU-27, having moved past its initial stages (defined as <5% e-commerce penetration) in 2014 **(46) (47)**.[11] In general, the CEE region compares favourably with the EU-27 in terms of the cumulative percentage growth of e-commerce penetration. Cumulative and forecast revenue growth from 2018–2028 indicates that CEE is surpassing the EU-27, with a CAGR of 9.6%, compared to EU-27's 8.3% and Western Europe's 6.9% *(Figure 11)* **(47)**. By 2028, the EU-27 is expected to attain an average e-commerce penetration revenue rate of 15.6%, while the CEE average is expected to reach around 10% **(47)**. By 2028, the Czech Republic is projected to achieve a penetration rate of around 15%, while rates in Poland, Slovakia and Bulgaria are projected to reach around 10% and in Romania, Hungary and Serbia just below 10% **(47)**. The forecast growth rate of e-commerce user penetration in the CEE region between 2017 and 2028 will outpace that of the EU-27 by over 30 percentage points **(47)**. Recent online sales numbers support CEE's e-commerce penetration growth: CEE achieved a notable 18% increase in online sales during Q4 2023, exceeding the growth of Western Europe (7.4%) by more than double **(48)**.[12]

Online sales are forecast to expand by €15 billion, leading to >1.6 million sqm of expected incremental demand by 2028

Online sales in CEE are expected to increase from approximately €30 billion in 2023 to around €45 billion by 2028, a CAGR of 7.6% **(47).** Based on client conversations and according to international real estate services firm CBRE, an increase of €1 billion in revenue generated by internet sales equates to 110,000 sqm of incremental demand for warehousing space **(49).** This represents a demand potential in CEE markets of >1.6 million sqm, almost equal to the total logistics market stock of Sofia or Bratislava today **(50).**

Figure 10. **Rising domestic consumption levels (44)**
Real expenditure per capita, cumulative growth, index 2010=100

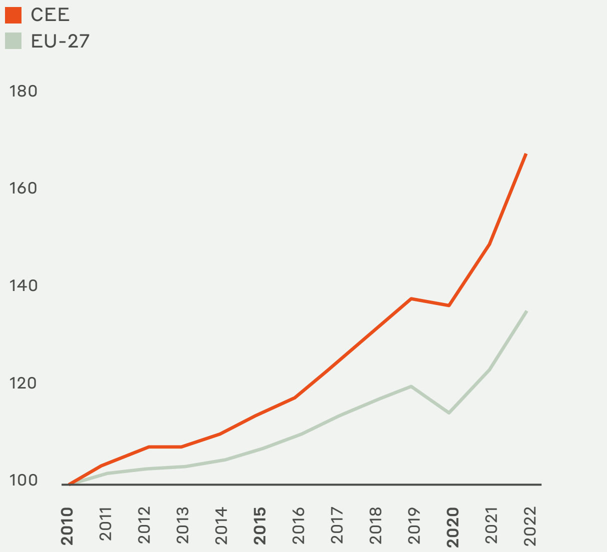
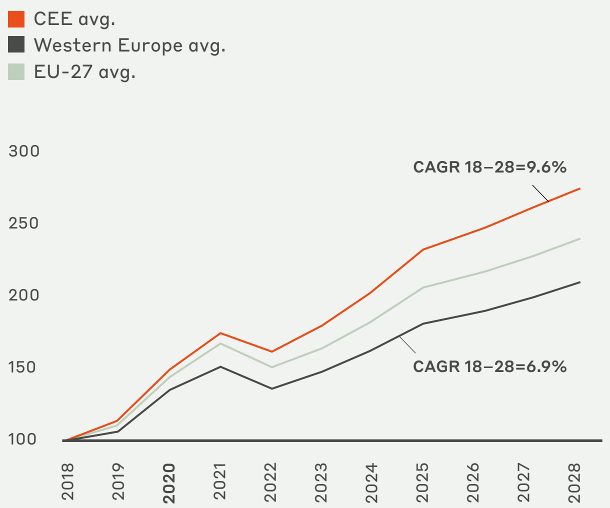


Figure 11. **Rising e-commerce revenues (47)** [13]
Cumulative growth in revenues, index 2018=100



9-10 CEE average is calculated by weighted average, based on GDP in 2022.

11 E-commerce penetration is expressed in total e-commerce turnover of enterprises. E-commerce penetration rate is calculated as the ratio of e-commerce sales to total retail sales, in B2C and purchases via computers (including notebooks) and via mobile devices. B2B, digital sales such as Netflix, Amazon, and the resale of goods not included.

12 Western Europe includes Germany, France, the Netherlands, Belgium, and the United Kingdom.

13 Western Europe includes France, the Netherlands, Germany, the United Kingdom, Austria, and Luxembourg. Estimates start after 2023.

5. STRONG REAL ESTATE FUNDAMENTALS

Real estate fundamentals in CEE compare favourably to Western Europe, with less saturated markets and lower per capita industrial building supply offering more opportunities for new greenfield developments.

Less saturated markets

With an average per capita supply of grade-A industrial and logstics stock of 0.6, CEE markets in general remain undersupplied compared to Western Europe **(50)**. However, saturation rates vary among CEE markets, e.g., the Czech Republic has a per capita supply of grade-A stock (1.1) almost as high as the Western Europe average (1.3) due to the country's geographic position, with many companies locating operations there to serve customers in Germany **(50)**.[14] In contrast, Serbia and Bulgaria are among the most undersupplied markets in Europe, with less than 0.25 sqm of grade-A stock per capita *(Figure 12)* **(50) (51) (52)**. Undersupplied markets are improving as there is increasing demand for new grade-A stock. Overall, current stock in CEE is of high quality, as the modern sector only emerged in the 2000s, and in general building standards are comparable with prime product in Western Europe **(53)**.

Industrial building supply

CEE offers better opportunities for greenfield developments than Western Europe, with per capita industrial building rates currently still lower than in Western Europe **(53)**. Regarding the issuance of non-residential building permits (measured in millions of square meters of useful floor area), Slovakia, Romania, the Czech Republic, Serbia, and Bulgaria, among others, display a building permit issuance rate per capita lower than the EU-27 average **(54)**. While Poland, Bulgaria, and Serbia report shorter than EU-27 average times for obtaining building permits, in several CEE countries the waiting time is above the EU-27 average *(Figure 13)* **(55)**. There has been a focus in CEE in recent years on building modern retail and industrial spaces **(56) (57) (58) (59) (60)**.

Demand outperformance

Net absorption (change of occupied stock) in CEE outperforms Western and Southern European countries, which demonstrates stronger market demand. Between 2019 and 2023, the average net absorption as a percentage of total stock was 10.7% in the Czech Republic and Poland. This is above the Western and Southern European average, which reached 5.7%. Combined occupied stock growth between 2024 and 2028 in the Czech Republic and Poland (37%) is forecast to continue to outperform growth in Western and Southern Europe (17%) *(Figure 14)* **(61)**.

14 Western and Southern European countries include Belgium, France, Germany, Italy, the Netherlands, Spain, and the United Kingdom.

Figure 12. **Less mature markets (50)**
Stock per capita, sqm, Q4 2023

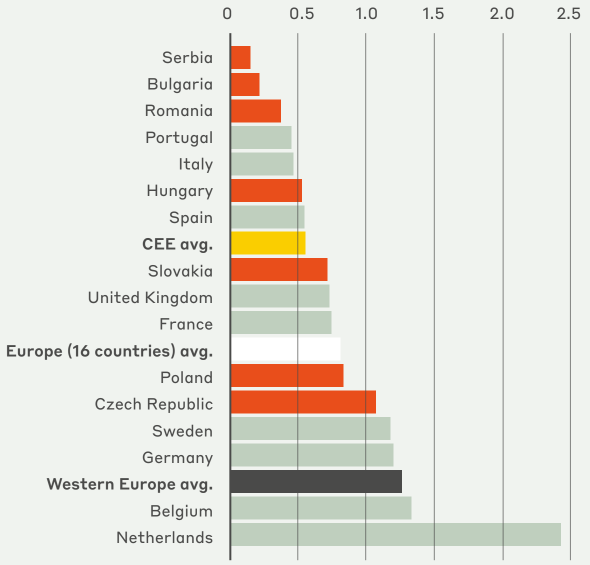


Figure 14. **Continued demand outperformance (61)**
Occupied stock growth, index 2010=100

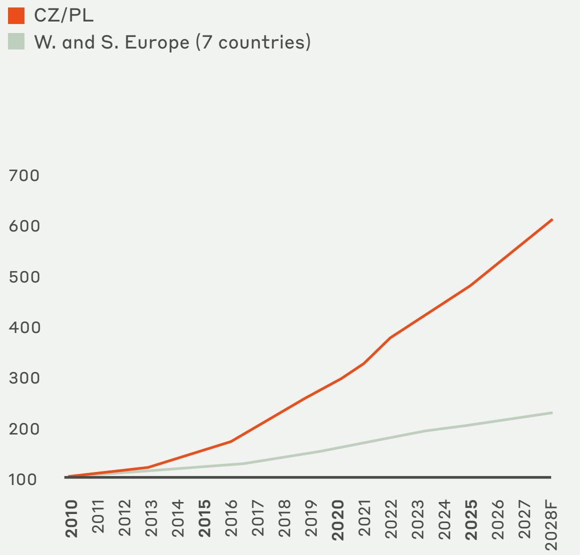
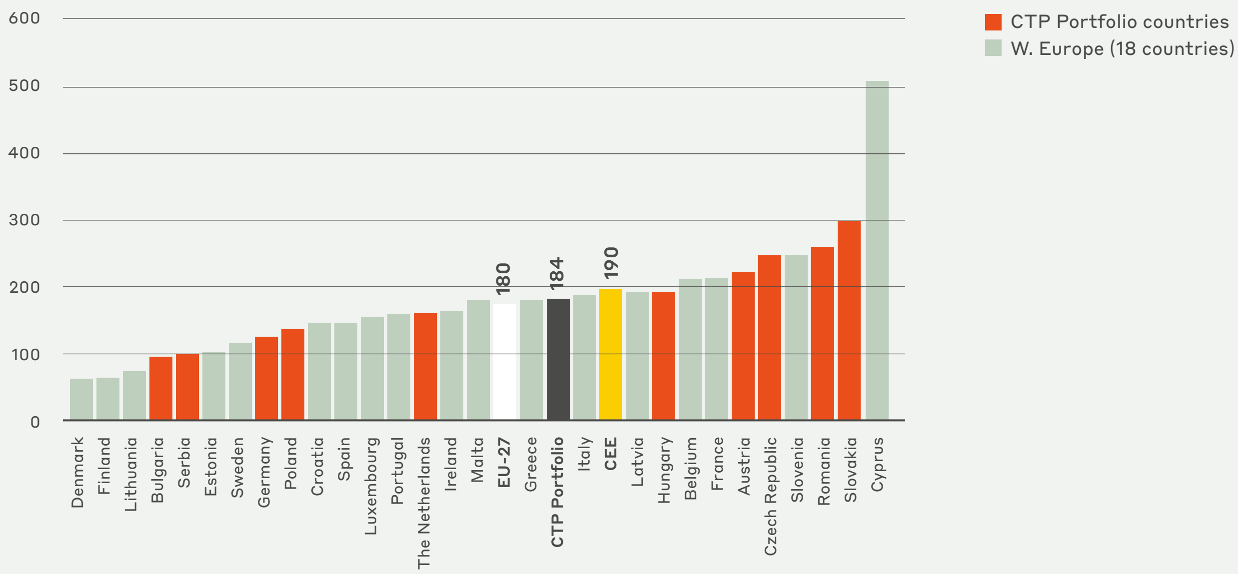


Figure 13. **Building permit time in Europe (days) (55)**



6. COUNTRY PROFILES AND STATISTICS

Table 1. NATIONAL STATISTICS

	Population	Consumption		E-commerce		Trade		Labour rates
	YE '23 in millions	Individual consumption in '22 (€, PPS)	Growth '12-'22 (%)	Penetration rate (revenue) YE '23 (%)	Growth (CAGR) '24-'28 (%)	Merchandise exports as % GDP ('22)	FDI inflows '18-'22 av ($B)	Trans-portation & storage (€/hr, '22)
Czech Republic	10.8	19,300	44.0	12.6	2.6	83.3	9.9	15.1
Slovakia	5.4	17,800	32.8	7.5	3.4	93.3	0.9	13.6
Romania	19.1	20,100	91.4	5.5	4.5	32.2	7.5	8.9
Hungary	9.6	16,400	45.1	5.9	5.6	85.5	6.8	10.2
Poland	36.8	20,300	52.6	7.5	3.1	52.4	20.7	11.5
Bulgaria	6.4	16,100	76.9	7.1	5.0	55.6	2.2	6.6
Serbia	6.7	12,300	39.8	3.8	4.3	45.7	4.7	7.4
CEE avg.	**13.5**	**18,750**	**53.4**	**8.1**	**3.3**	**60.1**	**12.3**	**11.3**

Table 2. CAPITAL CITIES

	Population (2024)	Economy						Workforce (2024)	Consumer spending (population-based)	
	Metro area (in millions)	GDP in '24 (real, €, in millions)	GDP growth '24-'28 (CAGR, %)	Share manu-facturing + logistics in GDP (%)	Total employ-ment (in thousands)	of which manu-facturing (in thousands)	of which logistics (in thousands)	Share manu-facturing & logistics (%)	Consumption in '24 (real, €, in millions)	Consumption growth '24-'28 (CAGR, %)
Prague	2.7	55,379	2.9	11.4	1,014	63	55	11.6	13,309	3.3
Bratislava	0.7	27,207	2.0	18.7	480	58	26	17.6	9,504	2.3
Bucharest	2.3	57,398	1.8	10.5	1,103	61	81	12.9	19,449	3.0
Budapest	3.0	54,980	2.2	12.6	1,652	119	91	12.8	17,278	2.7
Warsaw	3.1	86,161	2.2	10.8	1,387	102	111	15.4	22,297	2.5
Sofia	1.7	24,280	1.9	10.4	993	71	65	13.7	10,019	1.6
CEE avg.	**2.2**	**50,901**	**2.2**	**12.4**	**1,105**	**79**	**72**	**14.0**	**15,309**	**2.6**

Table 3. REAL ESTATE

	Stock (million sqm)	Stock per capita	Completions ('000s sqm)	Take-up ('000s sqm)		Vacancy rate (%)	
	Q4 '23	Q4 '23	FY '23	FY '23	3yr avg.	Q4 '23	3yr avg.
Czech Republic	11.7	1.1	921	928	1,321	1.8	1.0
Slovakia	3.9	0.7	277	479	475	2.6	3.9
Romania	7.2	0.4	492	772	751	5.0	5.0
Hungary	5.1	0.5	n/a	526	546	7.7	4.6
Poland	30.8	0.8	3,567	3,416	4,188	7.4	5.4
Bulgaria	1.7	0.2	n/a	75	80	4.2	n/a
Serbia	1.7	0.2	n/a	195	n/a	4.0	n/a
CEE avg.	**8.9**	**0.6**	**1,314**	**913**	**1,227**	**4.7**	**4.0**

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