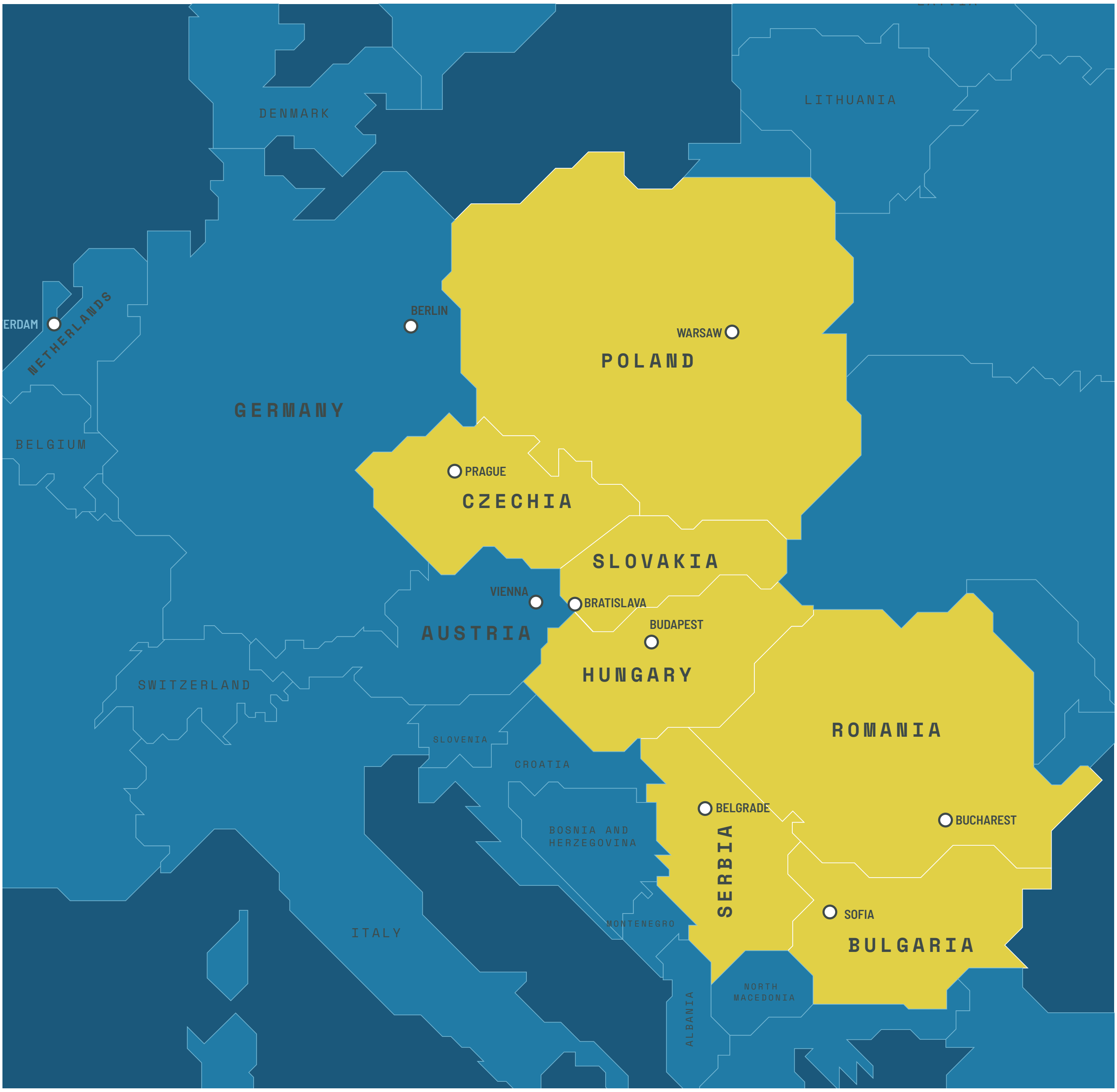
RESEARCH PAPER SPRING 2023

CEE: A Business-Smart Region

A STUDY OF THE DIVERSE AND EXPANDING
DRIVERS SHAPING CEE'S GROWTH PATH



Executive Summary

CEE historically has seen strong GDP growth, and this trend is expected to continue in years ahead. The region's economy has more than doubled since 2000, and many businesses invested early and have capitalised on this.

This paper showcases how growth in the region is expected to evolve in the next years and the variety of drivers supporting this growth. Understanding CEE's growth potential is more important than ever given, the current macroeconomic turmoil. We believe CEE is and will remain resilient and remains one of the best places for businesses to grow with many untapped market opportunities, including nearshoring potential and catching up e-commerce growth vis-à-vis Western European markets.

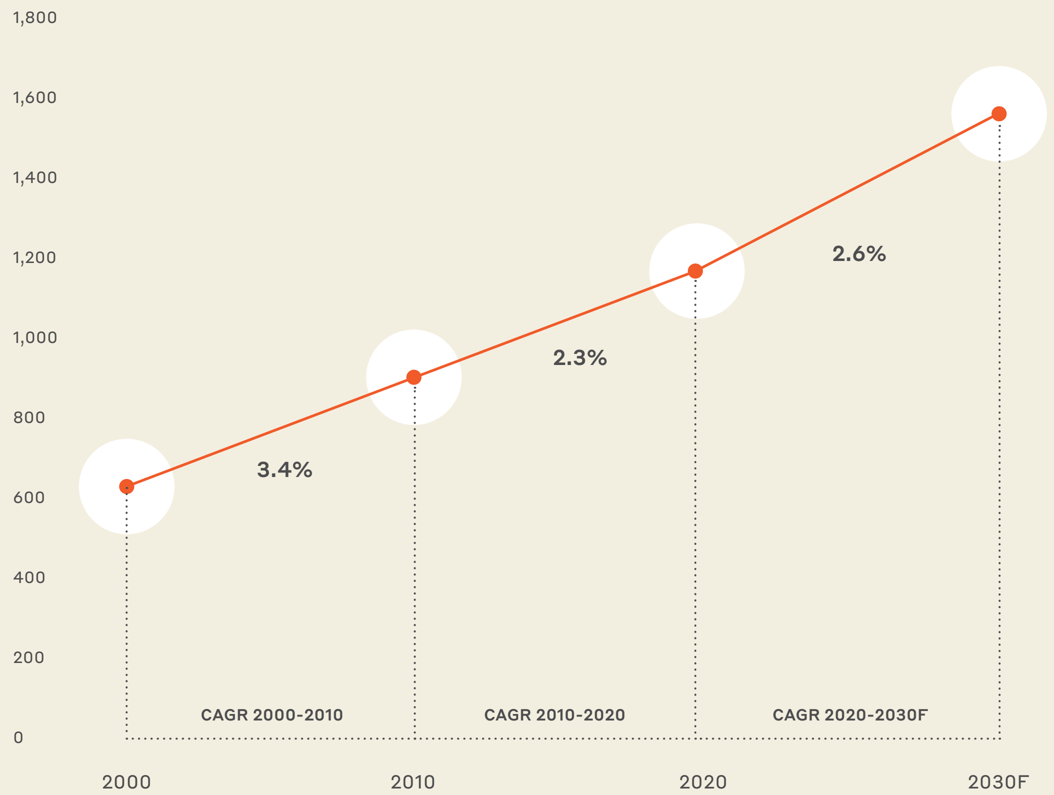
In this paper we identify five different success factors that make CEE a "Business-Smart" region:

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

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

SIZE OF THE CEE ECONOMY

GDP, real, €B1 [1]



[1] Oxford Economics, Eurostat, IMF

Skilled Human Capital

Competitive labour rates
For the transportation & storage and manufacturing sectors, labour costs are less than one-third compared to Western Europe.[2]

Industrial & Logistics and high-tech employment are well-represented
Six out of seven CEE countries are among the top ten European countries with the highest share of jobs in the manufacturing sector.[3] Five CEE capitals are among the top ten European capitals with the highest share of employment in transportation. Warsaw (11%) and Bucharest (10%) top this ranking.[4] Budapest, Prague and Bratislava have one of the highest shares as a percentage of total employment in the high technology (incl. high-tech manufacturing) sector.[5]

Strong work ethic
The average number of weekly working hours in both the transportation & storage and manufacturing sectors in CEE is above the EU-27 average.[5] The strong work ethic in CEE countries is also supported by lower rates of personal income tax compared to Western European markets. While productivity rates are below Western Europe, they are rapidly catching up, particularly in Bulgaria and the Czech Republic.[5]

Educated and international workforce
CEE and EU-27 have an equal share (24%) of graduates from Science, Technology, Engineering and Mathematics (STEM) programmes in tertiary education. Romania (29%) and Serbia (30%) have, together with Germany (36%), one of highest shares of technical students in Europe.[6] In addition, as career opportunities grow, young professionals return from Western Europe and the U.S. to CEE—this is considered as "reverse brain drain". The 2022 English Proficiency Index of all CEE countries (Serbia not available) is higher than France, Italy and Spain. A gap remains with the Netherlands and Scandinavia, which have leading scores globally.[7]

Sources:

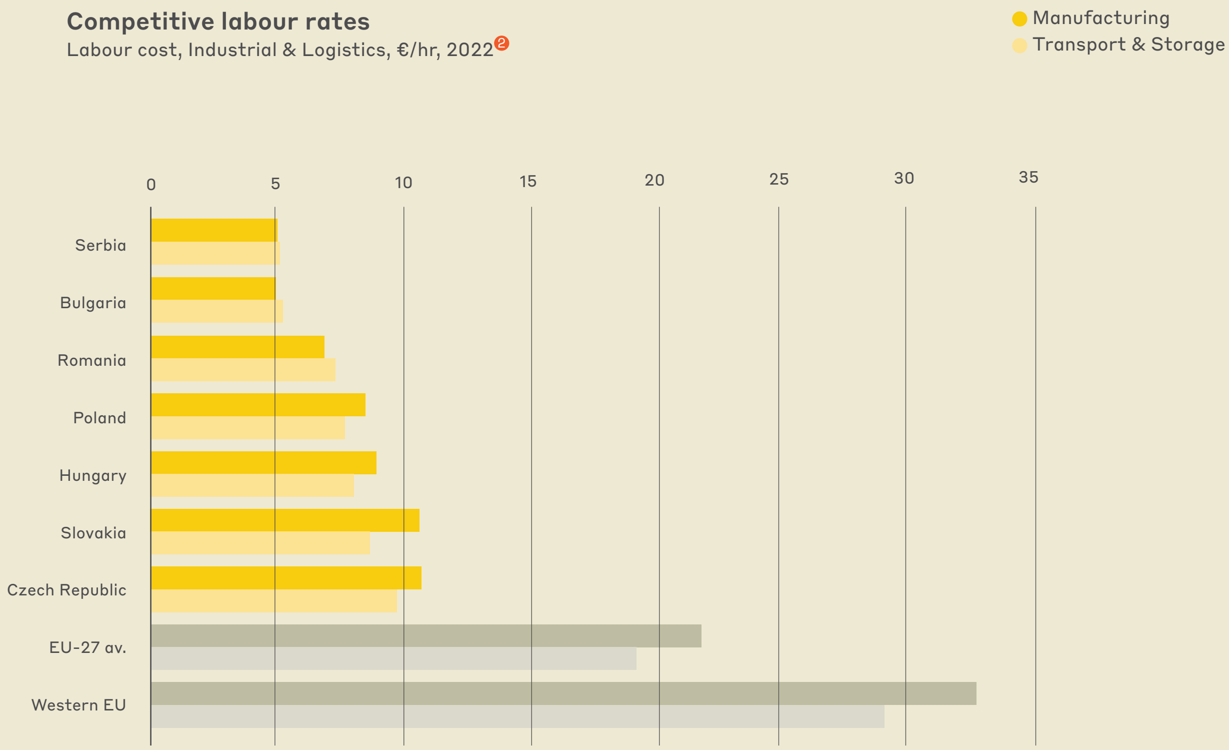
2. Eurostat. Note: Cost levels by NACE Rev. 2 activity as of 2021 and labour cost growth (y/y) at the industry level (except construction) in 2022. Western European average is based on UN geoscheme classification and includes AT, BE, FR, DE, LX, NL, CH
3. ILOSTAT
4. Oxford Economics. Note: Metropolitan areas, Belgrade not available
5. Eurostat
6. UNESCO Institute for Statistics
7. EF English Proficiency Index

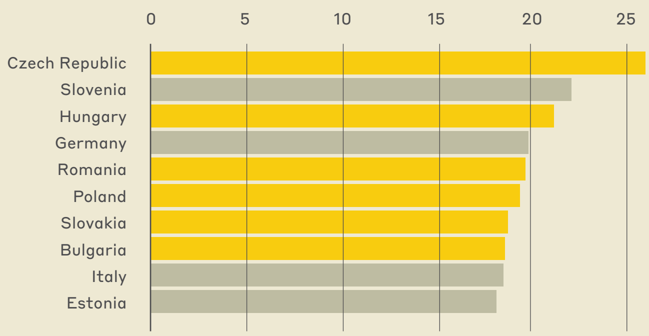
CEE SUCCESS FACTOR:

Competitive rates combined with a skilled and large labour force

Competitive labour rates

Labour cost, Industrial & Logistics, €/hr, 2022[2]





Manufacturing employment well represented

Top ten countries with highest share of manufacturing employment as % total in EU-27, 2022 [3]

Connected Markets

Infrastructure investments

CEE has seen significant infrastructure improvements since the 2000s, ensuring the efficient flow of goods within the region and to and from Western Europe, particularly road infrastructure. Since 2000, the length of motorways in CEE (excl. Serbia) has grown 271%, while growth in Western Europe is 16%.[8] Overall network density continues to improve. For example, Hungary has one of the highest motorway densities in all of Europe, with the third-highest road density after Belgium and the Netherlands, while the Czech Republic has one of the highest rail network densities.[9]

Air and sea transport catching up

Connectivity by air lags compared to Western Europe but a gradual catch-up is visible.8 Air passenger transport is recovering faster in CEE compared to the European average and investments in airports continue, for example the planned new national airport in Poland (CPK). Gdańsk (Poland), Koper (Slovenia) and Constanta (Romania) are among the largest sea container ports in the region.[10] To mitigate supply chain risks, expectations are that CEE ports can expect rising volume as alternative inbound ports to the Hamburg-Le Havre range, particularly for domestic consumption and nearshoring activities.

Infrastructure investments support growth

Benefits from infrastructure investments are substantial as each percentage of GDP spent on infrastructure in CEE, output can increase by 2%–2.5% over the long term.[11]

Catchment area

Driven by infrastructure investments, catchment areas continue to expand over time. Central locations and border markets have access to a large consumer base. For example Iłowa in Poland, close to the German border, which has access to 21.1 million consumers within a five-hour drive.[12] This connectivity attracts (online) retail demand. Another example of a connected market is Bucharest, which has become a central hub for the wider region, with increasing industrial & logistics ("I&L") demand to serve the broader area, from Turkey to Western Europe.

Sources:

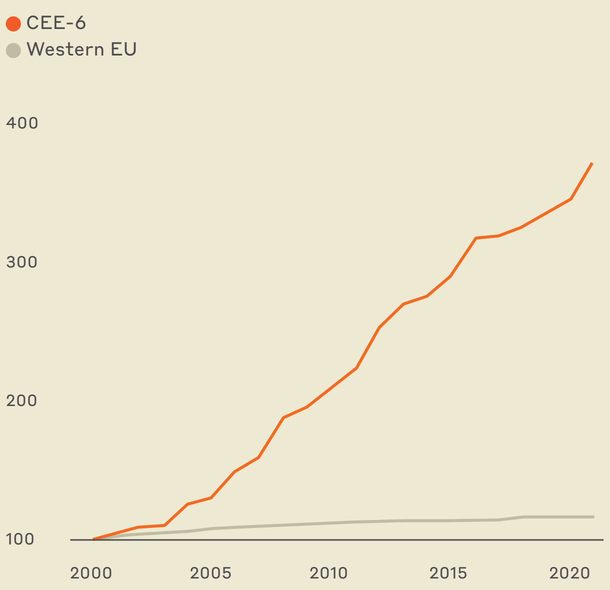
8 Eurostat. Note: RS not available
9 OECD
10 PortEconomics
11 IMF
12 Smappen

CEE SUCCESS FACTOR:

Continued high Infrastructure investments have been critical for serving domestic markets, Western Europe and increasingly important trade routes from CEE to Middle East

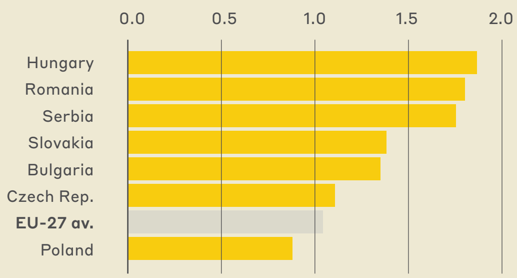
Expansion of motorway network

Growth motorways in km since 2000, 2000=100[8]



High infrastructure investments

Total inland investments, as % of GDP, 2015-2020 av. [9]



Diversifying and Expanding Economies

Economic resilience

The CEE region has shown strong economic resilience, with the real GDP growth outperforming Western European markets and the whole of Europe. Real GDP growth forecast for the coming years is also higher. CEE GDP growth is forecast to grow twice as fast as the eurozone average between 2023-2026.[11]

Outperformance at the city level

CEE capitals are forecast to outperform the GDP growth of their Western Europe peers during 2023–2026. According to Oxford Economics, the top three fastest-growing cities with a population above one million are all in CEE (Warsaw, Prague, Bucharest). CEE has been a long-standing receiver of FDI inflows, and according to FDI Intelligence, cities in CEE score particularly well on cost-effectiveness and business friendliness.[13]

Strong manufacturing base

CEE has a legacy as a strong manufacturing base that dates to the Habsburg Empire. In 2021, CEE (excl. Serbia) exported over €370 billion of “machinery and transport equipment”, which is 19% of the EU-27 total. CEE’s importance as a manufacturing base is growing over time, as this share was 14% in 2011.[14]

Diversifying economy

The CEE economy has evolved into a high-knowledge economy over time. This is evidenced in the economic complexity index prepared by Harvard University. Economic development requires the accumulation of productive knowledge and its use in more and more complex industries. Out of 133 countries included, the Czech Republic ranks sixth and Hungary ninth. Many CEE countries have made significant improvements since 2000. Countries improve their scores by the number and complexity of the products they are able to produce and export.

Capability to innovate

Innovation is seen across the region. In EV-battery manufacturing, Hungary is already Europe’s second-largest producer, with further growth forecast by 2030.[15] The recent announcement by Volvo to invest €1.2B in a new EV factory in Košice (SK) and a new software development centre for electric vehicles in Krakow (PL) are recent examples beyond traditional production.

Decoupling supply chains provides opportunities for nearshoring

The mix of a strong manufacturing base, innovation capabilities, location close to Western. Europe, the need to mitigate geopolitical risks and cost-effective and skilled labour are expected to drive the nearshoring trend. CEE is already highly ranked as a nearshoring and “Made in Europe” hotspot. In a recent survey among European companies of likely destinations for nearshoring by MAERSK, Poland ranked in first place, and Romania and Czech Republic were positioned in the global top ten.

Low public debt ratios

The average debt to GDP ratio of the CEE countries (53%) is significantly below the EU-27 average (88%).[16] The low debt-to-GDP ratio is also reflected in credit ratings, 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 (Baa2) and Italy (Baa3).

Sources:

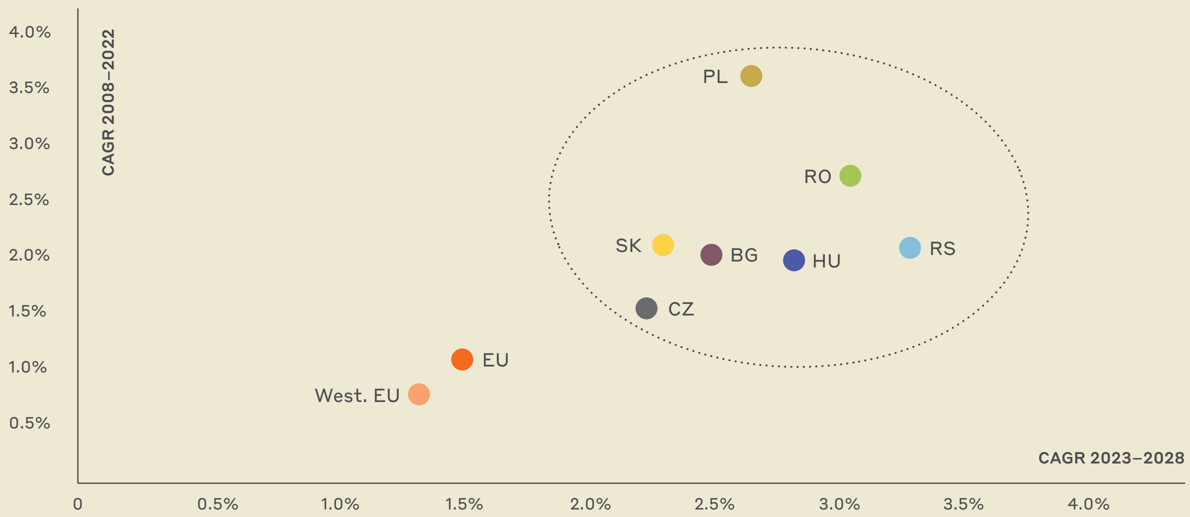
- [11] IMF
- [13] FDI Intelligence, European Cities and Regions of the Future 2023
- [14] Eurostat. Note: SITC7, Machinery and transport equipment
- [15] Transport & Environment
- [16] Eurostat, Statista. Note: Data is average of FY 2021. CEE-7 average is calculated by weighted average, based on GDP in 2021
- [17] Oxford Economics. Note: Population threshold as of Dec. 22. Statistics for Belgrade not available

CEE SUCCESS FACTOR:

Resilience and ability to capitalise on emerging trends, including the rise of EV and nearshoring

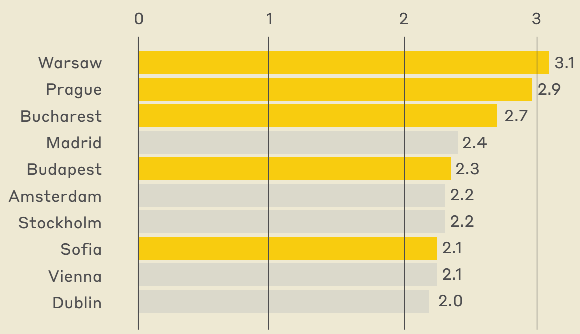
Economic outperformance

Real GDP growth comparison, historic and outlook [11]



CEE capital cities leading

Top 10 EU capitals, av. GDP growth in 2023-2026, population >1M, CAGR % [17]



Note: Bratislava has a population <1M and therefore is not included. GDP projection is 2.9%, equal to Prague

Rising Domestic Consumption

Growth in disposable income
Fuelled by economic expansion, domestic consumption in CEE has grown by almost 50% since 2010, more than double the rate of the EU-27 average.[18] Growth of disposable income has been highest in CEE at a regional level (NUTS2) since 2010. Warsaw (+81%), Bucharest (+80%) and Sofia (+67%) top this European ranking.[5]

Continued fast-paced e-commerce growth
CEE reported online sales growth of 9% in Q4 2022 and a further 14% in Q1 2023, while Western markets recorded a temporary slowdown.[19] The region is catching up since passing its infancy in 2015 (defined as <5% penetration). It is expected to reach the >15% penetration threshold in 2023 (8 years). The combined average for the UK, Germany and France was 10 years.[20]

Maturity differs across CEE markets
All CEE countries are forecast to see continued growth, but maturity differs. This is reflected in online sales penetration levels. Slovakia, Romania, Hungary and Bulgaria are expected to further mature in years to come, with average penetration levels at ~15% by 2026.21 Poland and the Czech Republic are expected to have among the highest online sales ratios in Europe by 2026. Despite buoyant growth projections for the next four years, CEE penetration levels (20% in 2026) are projected to remain well below the UK and the Netherlands (33% and 24%, respectively).[21]

Domestic online retailers most active
Market share of the top five online retailers is ~45% in CEE, slightly below the largest markets in Western Europe.[22] A key difference is the wider diversity of online retailers in CEE, mostly active at the domestic level and expanding.

Online sales forecasted to expand by >€25 billion, which is projected to lead to >2.8 million sqm of incremental demand by 2026.
Online sales in CEE are expected to increase from ~€30 billion in 2022 to ~€55 billion by 2026, a CAGR of 13%.[21] Based on client conversations and according to CBRE, an increase of €1 billion in revenue generated by internet sales equates to 110,000 sqm of incremental demand for warehousing space. This represents for CEE markets a demand potential of >2.8 million sqm, almost equal to the total logistics market stock of Budapest or Bucharest today.

Sources:

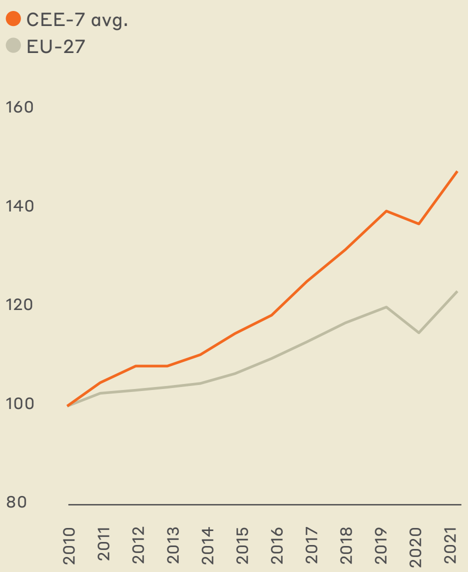
- 5 Eurostat
- 18 Eurostat, World Bank. Note: CEE-7 average is calculated by weighted average, based on GDP based on 2021
- 19 Salesforce. Note: quarterly shopping data
- 20 Oxford Economics, Statista. Note: Weighted average CEE and DE/UK/FR based on online sales volumes in 2022
- 21 Oxford Economics, Statista
- 22 Euromonitor. Note: CEE is PL, CZ, SK, HU and RO; the largest markets in Western Europe are UK, DE and FR

CEE SUCCESS FACTOR:

Consumers are catching up to Western spending patterns, including online retail

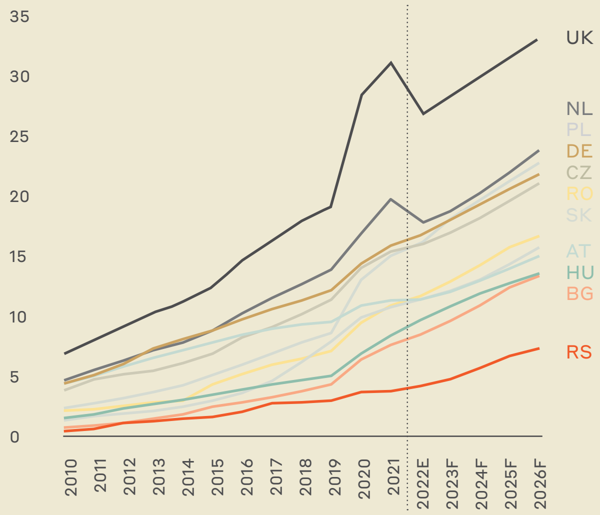
Rising domestic consumption levels

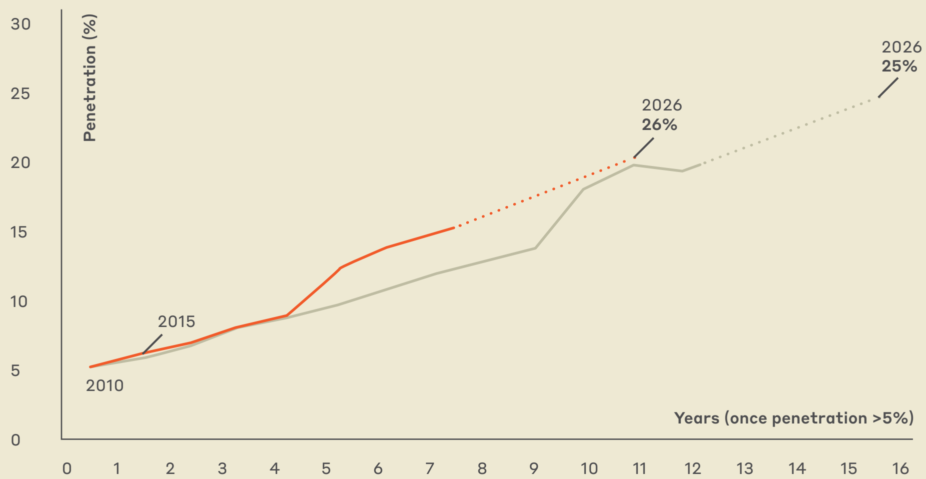
Real expenditure growth, index 2010=100 [18]



Continued e-commerce penetration

% [21]





CEE catching up but still at a lower base

E-commerce penetration % [20]

- CEE-7 avg.
- EU/DE/FR avg.

Strong Real Estate Fundamentals

Less saturated markets
Lack of grade-A stock creates structural demand. Serbia, and Bulgaria have <0.3 sqm of grade-A stock per capita, which places them among the most undersupplied markets in Europe.[23] Undersupplied markets are catching up as clients relocate to grade-A stock. Current stock in CEE is overall of high quality as the sector only emerged in the 2000's. Building standards are comparable with prime product in Western Europe.

Rising new supply barriers
Stricter regulations and land scarcity are expected to lead to lengthier timelines to obtain permits (including zoning). Rising barriers lower the potential risks of oversupply, keeping market vacancies near record-low levels. Although the CEE countries have also seen an increase in the time required to obtain a permit, the number of months remains much lower than in Western Europe, reflecting a more business-friendly approach.

Demand outperformance
Net absorption (change of occupied stock) outperforms Western/Southern European countries. In the last five years, average net absorption as a percentage of total stock was 10.8% in the Czech Republic/Poland. This is above Western/Southern Europe, which reached 6.3%. For the next five years, continued outperformance is expected as the Czech Republic/Poland and Western/Southern Europe are forecast at 11.1% and 5.0%, respectively.[24]

Constraints and strong demand fuels rent growth
Market vacancy is below the three-year average in all CEE countries (with the exception of Budapest, Hungary).[23] Given continued strong demand and increased cost of financing, vacancies are expected to remain close to historic lows. The Czech Republic has one of the lowest vacancy levels (1.2% as of December 2022) and the strongest rental growth in Europe over the last five years. Other CEE markets are catching up, such as Poland, with >30% headline rental growth in 2022.[23]

Sources:

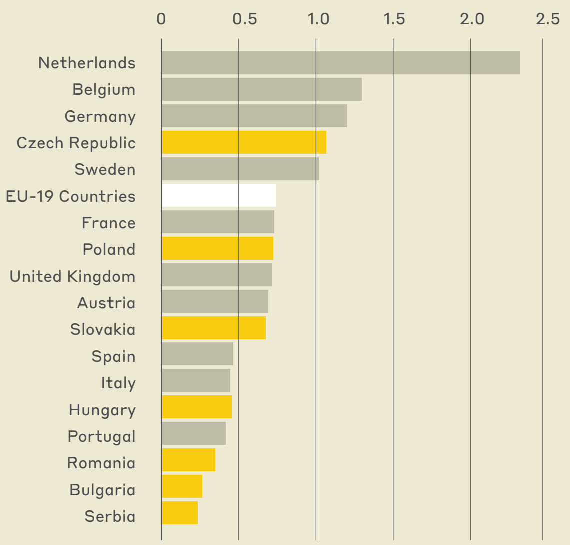
[23] CBRE, Colliers
[24] CBRE. Note: Western and Southern European countries include: BE, FR, DE, IT, NL, ES, UK. Only national totals available for CZ and PL in CEE
[25] CBRE, Colliers. Note: Vacancy level of HU, BG, RS and RO is capital city as National statistic is not available

CEE SUCCESS FACTOR:

Demand outperformed rest of Europe in a growing market

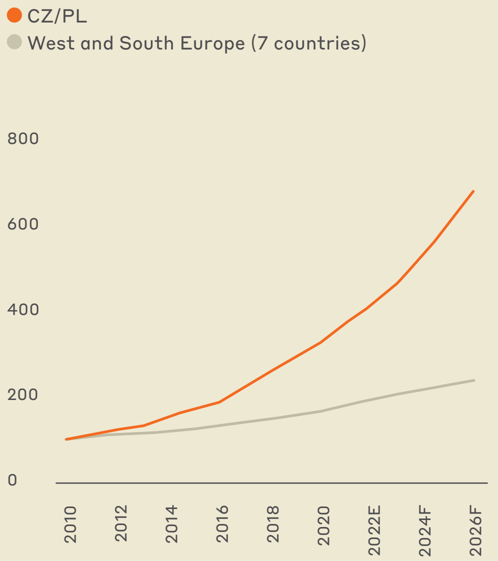
Less saturated markets

sqm per capita, as of Q4 2022 [23]



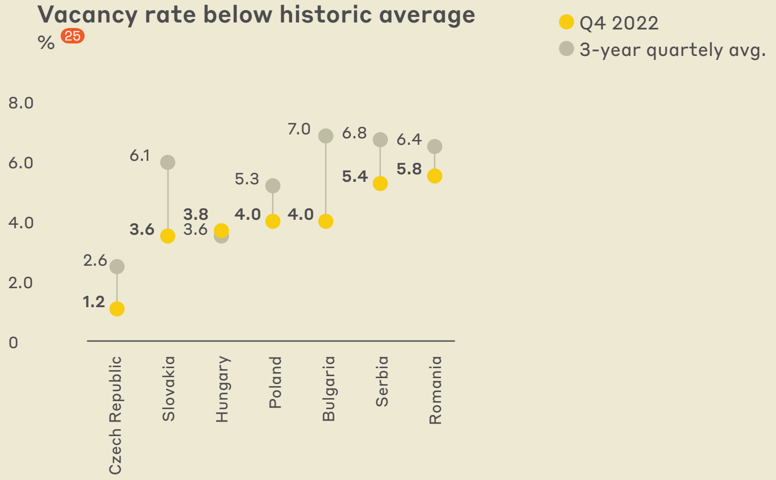
Continued demand outperformance

Occupied stock growth, index 2010=100 [24]



Vacancy rate below historic average

% [25]



Country Profiles and Statistics

National statistics[26]
Diverse macroeconomic trends fuel the I&L sector in CEE. However, the actual impact on demand can differ. For instance, Bulgaria and Serbia benefit—for now—from an undersupplied market (grade-A stock) and to a lesser extent from wealthy consumers (consumption). Within CEE, the Czech Republic and Poland benefit most from consumption-driven demand, including e-commerce.

Capital City statistics[27]
CEE capital cities outperform many other European capitals in terms of projected GDP. In fact, the top three in terms of economic outlook among the largest EU capitals (>1 million inhabitants) are Warsaw, Prague and Bucharest. I&L employment is well-represented, reflected in the relatively high share of employment in manufacturing and logistics. All six CEE capitals are highly ranked. Rising consumption is expected to further fuel I&L demand. In the six CEE capitals, projected consumption growth varies between 1.7% (Budapest) and 3.9% (Warsaw) for the 2023–2026 period.

I&L Real Estate Statistics[23]
Across the CEE region, market fundamentals are in relatively strong shape. This is reflected in continued strong demand and market vacancy rates below the five-year average (except Budapest). Market data at the country level is not available for all CEE-7 countries.

Sources:

[23] CBRE, Colliers
[26] Eurostat (population, consumption, and labour rates), Oxford Economics and Statista (e-commerce), The World Bank (merchandise trade), UNCTAD (FDI), CBRE, Colliers (GLA per capita)
[27] Eurostat (population) Oxford Economics (all other data at the metropolitan-area level). Note: Statistics for Belgrade not available

National statistics

	Population	Consumption		E-commerce		Trade		Grade-A stock	Labour rates
	YE '22 (million)	Individual consumption (in '21 €, PPS)	Growth '12-'21 (%)	YE '22 (%)	Growth '23-'26 (%)	Merchandise export as % GDP ('21)	FDI inward '17-'21 avg. ($B)	GLA per capita (Q4 '22)	Transport & warehouse (€, hourly, '21)
Czech Republic	10.5	17,900	33.6	16.1	5.0	80.2	9.2	1.0	9.8
Slovakia	5.4	14,900	13.7	11.8	4.9	90.2	1.3	0.7	8.7
Romania	19.0	17,700	77.0	11.5	4.3	30.8	5.9	0.3	7.4
Hungary	9.7	14,600	30.4	9.8	3.8	77.8	5.3	0.4	8.1
Poland	37.7	17,700	39.4	16.2	6.6	50.1	15.5	0.7	7.7
Bulgaria	6.8	13,600	58.1	8.6	4.8	50.9	1.9	0.3	5.2
Serbia	6.8	11,100	29.1	4.3	3.1	40.5	4.2	0.2	5.1
Average	**96 (total)**	**16,757**	**42.5**	**14.6**	**5.5**	**57.3**	**9.6**	**0.6**	**7.9**

Capital City statistics

	Population (2022)	Economy			Workforce (2022)				Consumer spending (population-based)	
	Metro area (million)	GDP in '22 (€B, real)	GDP growth '23-'26 (%)	Share Manu-facturing + Logistics in GDP (%)	Total employment	of which Manu-facturing	of which Logistics	Share Manu-facturing & Logistics (%)	Consumption (€B, '22, real)	Consumption growth '23-'26 (%)
Prague	2.7	53.8	2.9	11.1	988,240	62,780	73,770	13.8	13.6	2.8
Bratislava	0.7	26.1	2.9	18.4	472,180	54,380	29,330	17.7	8.7	2.2
Bucharest	2.3	52.5	2.7	14.0	1,128,250	64,710	116,850	16.1	17.1	3.2
Budapest	3.0	55.8	2.3	13.3	1,685,610	126,430	101,390	13.5	17.7	1.7
Warsaw	3.1	82.3	3.1	12.1	1,463,890	116,420	154,650	18.5	19.5	3.9
Sofia	1.7	23.5	2.1	10.0	995,130	83,770	50,950	13.5	9.4	2.0
Average	**2.3**	**49.0**	**2.7**	**13.1**	**1,122,217**	**84,748**	**87,823**	**15.5**	**14.3**	**2.6**

I&L Real Estate Statistics

	Stock (M sqm)	Completions ('000s sqm)		Take-up ('000s sqm)		Vacancy (%)	
	Q4 '22	FY '22	3yr av.	FY '22	3yr av.	Q4 '22	3yr av.
Prague	3.4	76	98	222	221	0.6	1.3
Bratislava	1.7	185	112	245	252	4.6	5.0
Bucharest	3.3	464	400	590	506	5.8	6.4
Budapest	3.1	333	267	527	433	3.8	3.6
Warsaw	5.6	467	497	821	822	3.8	5.2
Belgrade	1.1	151	80	100	N/A	5.4	6.8
Sofia	1.6	66	154	N/A	N/A	4.0	7.0

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