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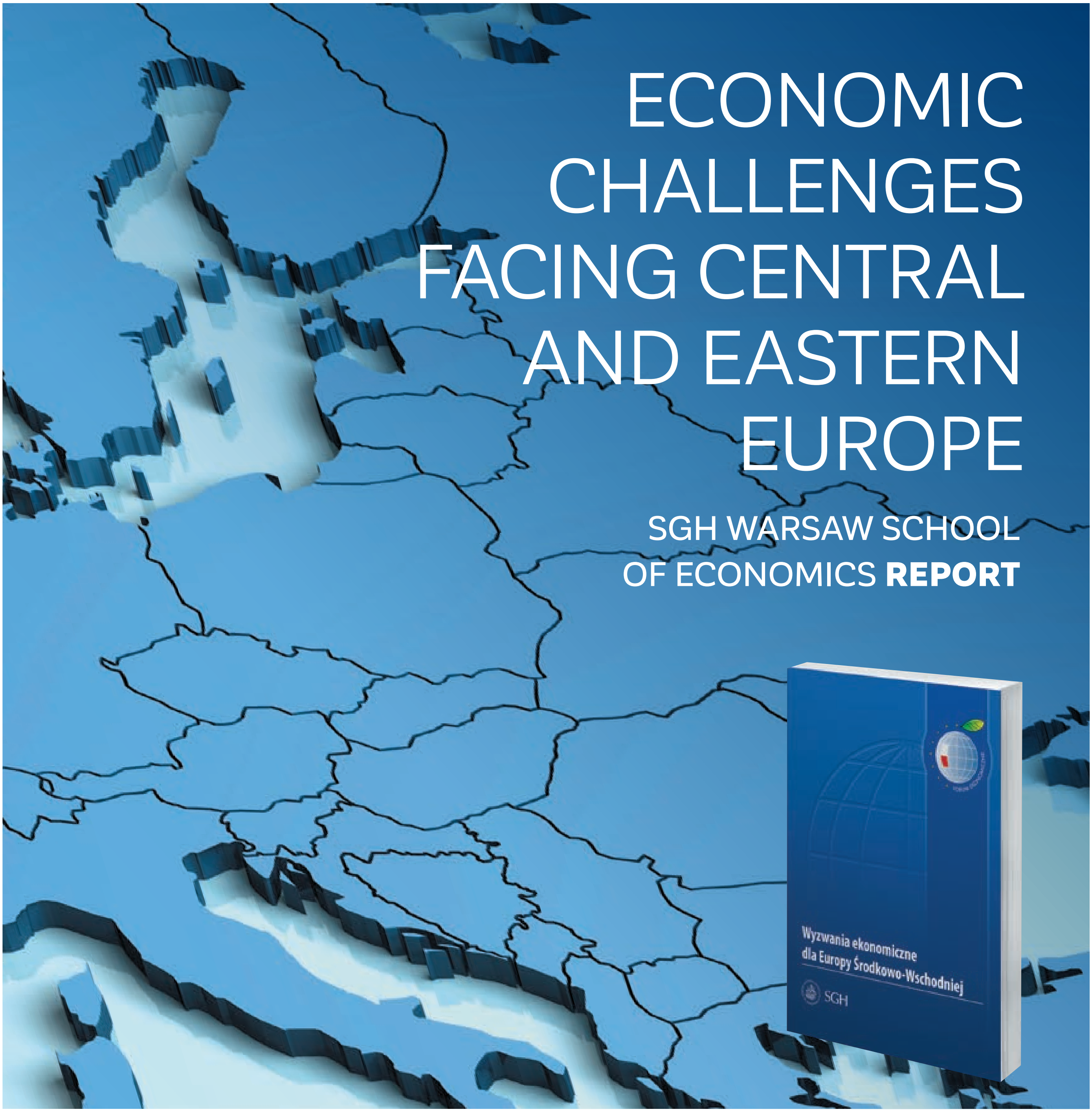

ECONOMIC CHALLENGES FACING CENTRAL AND EASTERN EUROPE

SGH WARSAW SCHOOL OF ECONOMICS **REPORT**

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SGH

SGH REPORT:
The Economy, Business, Low-Emission Growth, Demographics, The Tax System, Social Challenges

28th ECONOMIC FORUM
4–6 September 2018
Krynica

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Economic Challenges Facing Central and Eastern Europe

PROFESSOR **MAREK ROCKI**, PH.D.
RECTOR OF SGH WARSAW SCHOOL OF ECONOMICS

This publication presents conclusions and selected excerpts of the report titled "Economic Challenges Facing Central and Eastern Europe" which was prepared by experts of SGH Warsaw School of Economics for the 28th Economic Forum in Krynica.

SGH has long-time experience in creating expert opinions, economic and legal analyses for purposes of the private sector, public institutions and local government units. We provide data and their interpretations to entrepreneurs, decision-makers and the media. Some of our activities, such as regular research into the economic situation, are dedicated both to specialists as well as the public opinion at large.

Poland and most other countries of the region have witnessed an unprecedented in modern history period of over 20 years of uninterrupted development. We should not get complacent, though: in many areas there is a lot to do and the situation in the near and far environment has become unstable. Therefore, in this first edition we would like to outline some social and economic challenges facing Poland and other countries of Central and Eastern Europe.

The SGH Report has been divided into six subject areas. The first one refers to the economic conditions of countries' development in the region, among others: analysis of changes in the economic situation, real effective exchange rate, transactional costs, macro-prudential policy, market cartelisation or innovativeness.

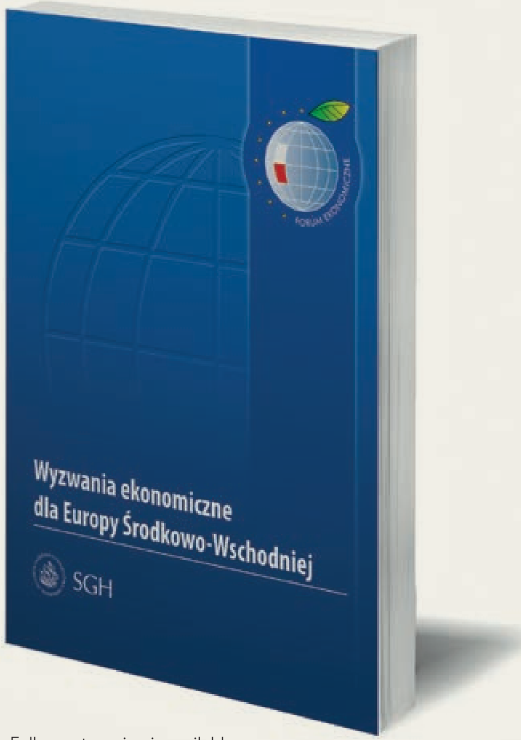
The second area studied in the SGH Report focuses on business matters, in particular the investor's perspective and conditions for doing business. We have also researched start-up support systems and two key sectors which are agriculture and the transport system.

The third area is low-emission development strategies in Central and Eastern Europe countries and their implications. The following chapter deals with demographic changes, particularly in terms of the labour market and social care as well as the pension system reform.

The fifth area discusses challenges involved in closing tax system loopholes. We have considered opportunities for sealing the tax system as a priority for an efficient state and shed more light on the problem of VAT non-compliance in the countries of Central and Eastern Europe. The final part of the report is devoted to social challenges, chiefly connected to the situation of households.

I very much hope our Report will pertinently address many of the nagging questions or at least become a stimulating contribution to pose some new ones.

Full report text to be found at www.sgh.waw.pl/krynica2018.



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We wish to thank all persons involved in the creation of the SGH Report: "Economic Challenges of Central and Eastern Europe" as well as the special issue of "Gazeta SGH".

We would also like to extend our gratitude to the authors of the articles and the staff of SGH: Centre for Entrepreneurship and Technology Transfer; Publishing House; Promotion and Admissions Office; and the "Gazeta SGH" editorial team for their contributions towards the issue of these publications.

THE ECONOMY

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ECONOMIC CONDITIONS OF THE DEVELOPMENT OF CENTRAL AND EASTERN EUROPE COUNTRIES

→ Observable symptoms of a slump in consumption along with lower production activity accompanied by deteriorating consumer and entrepreneurial confidence seem to indicate another wave of recession looming in the EU as well as in Central and Eastern Europe.
→ Outlays on research and development in the countries of Central and Eastern Europe have been well below the target values adopted under the growth strategy 'Europe 2020'.
→ Countries of Central and Eastern Europe (except for Estonia) at the start were below the target set by the European Union for 2020 in terms of the percentage of young generation members holding a university degree and all of these countries have achieved a considerable increase in the higher education participation rate.
→ The model of capitalism conceived in Poland and the remaining 11 countries of Central and Eastern Europe is institutionally highly incoherent. Due to this incoherence the system has been labelled with a newly coined term of patchwork capitalism. As compared to the European Union, Poland is characterised by relatively low rates of the banking sector consolidation.
→ Advanced economic analytics allows identifying the markets where cartels are likely to occur as well as singling out companies suspected of engaging in collusive schemes.
→ Poland is the only country in Central and Eastern Europe which saw the real effective exchange rate (REER) sink in 2000–2017 solely due to the impact of the labour cost channel, understood as slower unit labour cost growth (ULC) at home than abroad.
→ Postcommunist EU member countries experienced very rapid growth in the level of transactional costs, catching up with or even outperforming the developed capitalist states.
→ Generally, transactional costs increased dramatically in Poland (from 45% up to 68%) between 1996 and 2002, however, recently they have been on a downward trend except for a short period of stability/slight growth in the years 2006, 2008 and 2014.

BUSINESS

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INVESTOR'S PERSPECTIVE VERSUS CONDITIONS FOR DOING BUSINESS IN SELECTED SECTORS IN CENTRAL AND EASTERN EUROPE

→ Among the regions of Central and Eastern Europe, approximately only one in five was rated as possessing outstanding potential investment attractiveness.
→ Among the regions of Central and Eastern Europe in the years 2007–2016 the highest growth was recorded in Lithuania, Poland (Lower Silesia, Małopolskie and Wielkopolskie voivodeships) and Slovakia (Západné Slovensko, Stredné Slovensko, Východné Slovensko).
→ In subsequent years we could feel the impact of investments and exceptional growth in the region of Central and Eastern Europe as compared against the old EU member states. Three years later the ratings of potential investment attractiveness were improved in 21 regions and in subsequent three years they increased in another 14.
→ Designing efficient systems of supporting start-ups has nowadays become not merely an ornament in the national economic policy, but its pivotal element aimed at driving innovation and entrepreneurship in the economy.
→ Among the analysed countries of Central and Eastern Europe only two do not offer any tax relieves on R&D expenditure: Estonia and Ukraine. Yet, Estonia provides a CIT tax exemption on total retained and reinvested profit. Estonian companies which invest a lot of their resources into development are not obliged to pay income tax.
→ The European model of agriculture may find it difficult to continue in the era of globalising economies, at least in its current shape.
→ Globalisation, if not accompanied by appropriate political and economic activity, may lead to a degeneration of the European agriculture model followed by its complete denial or vanishing, which will cause a serious demeanour of the EU member states' agriculture.
→ In the years 1990–2015 the network of motorways in nine countries of Central and Eastern Europe grew over threefold, from 1888 km in 1990 to 6618 km in 2015.
→ Since 2005 Poland has built over 1000 kilometres of new motorways and in 2015 had a network of 1559 km of top standard roads – about seven times more than in 1990. Nevertheless, we cannot expect all needs related to new high standard road construction to be met in Central and Eastern Europe by 2030.
Enhancing the role of multimodal transportation in domestic systems and as a consequence in the transport system of the whole region remains a strategic task in Central and Eastern Europe countries.

LOW-EMISSION GROWTH

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LOW-EMISSION DEVELOPMENT STRATEGIES IN CENTRAL AND EASTERN EUROPE COUNTRIES

→ Enhancing the role of multimodal transportation in domestic systems and as a consequence in the transport system of the whole region remains a strategic task in Central and Eastern Europe countries.
→ The leader in accomplishing climate and energy targets set for 2020 in Central and Eastern Europe is Estonia which in 2016 met the energy consumption reduction goals set for 2020. Estonia has also been a leader in increasing the share of renewable energy sources in the consumed energy.
→ The established EU goal for a reduction in greenhouse gasses emissions may be very hard to deliver by the Central and Eastern Europe states.
→ For countries of the region, a greater challenge is presented by bringing down energy consumption than by increasing the share of renewable energy sources. Apart from Estonia, final energy consumption has been gradually limited by Croatia, Slovenia, Lithuania, Latvia and Czechia.

DEMOGRAPHICS

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DEMOGRAPHIC CHANGES AND THEIR IMPLICATIONS FOR CENTRAL AND EASTERN EUROPE

→ In the years 2018–2040 the expected supply of labour in most Central and Eastern Europe countries will shrink on average by 0.5–1%.
→ As a result of the shrinking labour supply, average economic growth rate in the countries of Central and Eastern Europe will decrease from 2–4% observable since the beginning of the 21st century down to 1.5–3% forecast for the years 2018–2040.
→ Not only is the population of Europe the oldest in the global scale and will continue this way, but also Europe is the only continent experiencing a fall in the number of working-age persons.
→ Underdeveloped care services in Central and Eastern Europe countries are a barrier to keener economic growth, as they hinder a more efficient use of the dwindling pool of labour resources.
→ The ageing population requires changes in pension schemes in order to keep them stable and adequate. In recent years practically in each Central and Eastern Europe country some alterations have been made to the pension system.
→ One of the vital accomplishments of almost all countries of the region has been equalling the retirement age of men and women, which has posed a political challenge. Poland and Romania are still facing the test.
→ The biggest challenge facing Central and Eastern Europe countries is a sustained increase in the professional activity rate of their populations.
→ Reforms of the social security system should be performed parallel to reforms of the institutional job market, aimed at encouraging employers to boost the demand for labour, and together with changes increasing the flexibility of the Labour Code and constraining job migration.

THE TAX SYSTEM

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CHALLENGES INVOLVED IN CLOSING TAX SYSTEM LOOPHOLES IN CENTRAL AND EASTERN EUROPE COUNTRIES

→ Legal solutions for preventing international tax evasion implemented in Poland may appear ineffective.
→ What is required are solutions which, on the one hand, can be efficient in dealing with entities using aggressive tax avoidance and on the other, may prove practical to entrepreneurs seeking a 'friendly' regulatory environment.
→ In a vast majority of Central and Eastern Europe states VAT collectibility has been below the EU average and VAT revenue as the main source of tax revenue has been largely unstable.
→ Implementing tailored mechanisms, mandatory reporting, IT tools along with raising awareness has resulted in increased VAT collection, as exemplified by the Visegrad Group.

SOCIAL CHALLENGES

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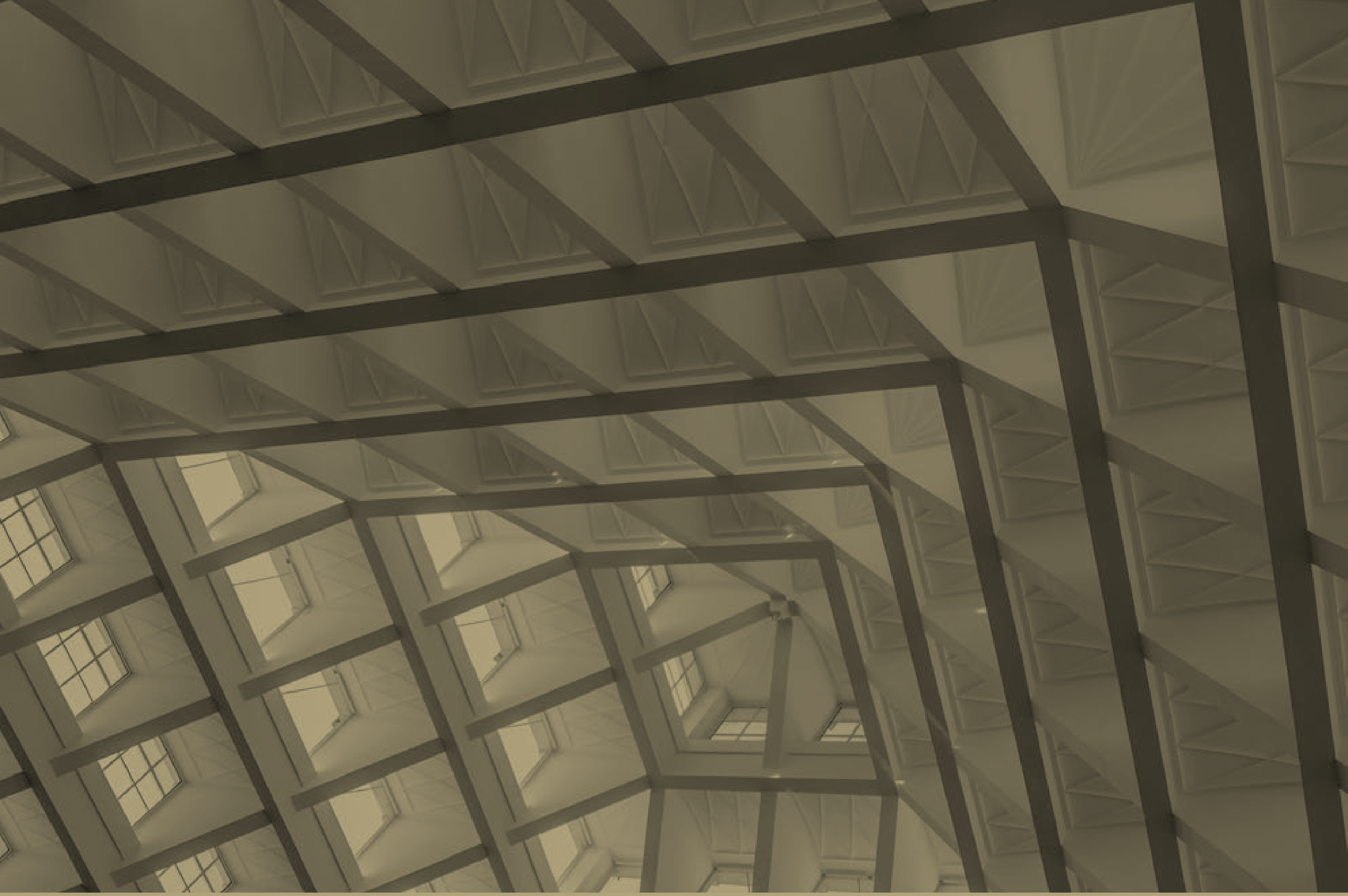
SOCIAL CHALLENGES FACING COUNTRIES OF CENTRAL AND EASTERN EUROPE

→ Almost all Central and Eastern Europe countries display one, characteristic model of housing capitalism which differs from any models applied in Western or Southern Europe. The model is characterised by a low level of flat commoditisation, e.g. people from CEE-11 countries treat their houses as family goods, not commodities or financial assets. In Central and Eastern Europe the market of reversed mortgages or consumer loans secured on property is practically non-existent, and discrepancies between the social structure of income and assets inequality are very large.
→ One of the qualities of the housing capitalism in CEE countries is low supply of flats for rent. What is more, if they at all become available in a given location, they tend to be very expensive – the rent to income ratio is much higher in the region than in the old EU member states.
→ The more people believe that one can be lifted out of poverty, the more important it becomes for the economic growth to invest in education.
→ Households in Central and Eastern Europe countries have a generally low level of indebtedness.
→ Financial behaviour of households in Central and Eastern Europe states shows many similarities to the behaviour of lower-income families in other European countries (low saving propensity, taking out more consumer loans than mortgage loans).



THE ECONOMY

1

ECONOMIC CONDITIONS OF GROWTH IN CENTRAL AND EASTERN EUROPE COUNTRIES

In this chapter we will analyse economic conditions of growth in Central and Eastern Europe countries in terms of changes in the economic situation, real effective exchange rate, transactional costs, macro-prudential policies, market cartelisation and innovation.

Economic situation in Central and Eastern Europe

Observable symptoms of a slump in consumption along with lower production activity accompanied by deteriorating entrepreneurial confidence seem to indicate another wave of recession looming in the EU as well as in Central and Eastern Europe.

In the years 1995–2018 there were two recessions (measured with a slump in real GDP) in the European Union (EU-28). The first one, known as the Great Recession or credit crunch, started in the first quarter of 2008. Despite a really deep slump, the recession lasted relatively short time, only 5 quarters. The crisis was accompanied by a dramatic fall in real consumption. A slump in GDP and in consumption resulted in a rapid deterioration of consumer sentiment. The value of the consumer sentiment index (CSI) decreased by 60 points. The subsequent recovery ceased after 9 quarters. The second recession was caused by the so called sovereign debt crisis of the eurozone and lasted from the 3rd quarter of 2011 till the 1st quarter 2013 (6 quarters). A revival following the sovereign debt crisis has been here to date (for 20 quarters). The level of real GDP from the beginning of 2008 was reached only in mid 2015 and consumption was restored only later.

The crisis of 2008 took place in all countries of Central and Eastern Europe (CEE) apart from Poland. Both the way the crisis unfolded and the economic situation fluctuated after the recession varied in different countries. The 2008+ crisis had the harshest effect on the Baltic countries where real GDP slumped by over 20%. Currently, real GDP and real consumption show an upward trend in most countries. The upward trend slowed down in 2016–2017 and in Romania it even stalled (in 2017). Analysis of the performance of the cyclical component of GDP indicates that in some countries a downward trend has begun. The strongest upward trend has been observable in the fluctuations of real GDP in Poland.

Real GDP growth has been driven by consumption, although it is not visible in the consumer sentiment index (CSI). In a majority of Central and Eastern Europe countries consumer sentiment is more pessimistic and volatile than in the EU-28. Recently, an upward trend has been seen only in Estonia, Lithuania, Hungary and Poland. A different picture is painted for the growth prospects of the processing industry. In all the countries studied, except Ukraine, the flattened industrial production index has reached values higher than in the EU-28 since the 2008+ crisis. A dramatic slump in Ukraine (since 2014) has been stopped recently. A survey of entrepreneurial sentiment reveals a more pessimistic picture of the fluctuations in the economic situation. In all CEE countries the values of the industrial confidence indicator (ICI) in 2017–2018 have been lower than the same values in the EU-28 and are characterised by high volatility. Yet, the ICI cyclical component has been at a decline stage since mid 2017 both in the EU-28 and in CEE countries (apart from Czechia and Slovakia where the downward trend has been ceasing).

Observable symptoms of declining consumption along with lower production activity accompanied by deteriorating entrepreneurial confidence seem to indicate another wave of recession looming in the EU-28 as well as in CEE.

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Knowledge, development and public policies in Central and Eastern Europe as compared against highly developed countries

Outlays on research and development in the countries of Central and Eastern Europe have been well below the target values adopted under the growth strategy 'Europe 2020'. Countries of Central and Eastern Europe (except for Estonia) at the start were below the target set by the European Union for 2020 in terms of the percentage of young generation members holding a university degree and all of these countries have achieved a considerable increase in the higher education participation rate.

In the growth strategy 'Europe 2020' the development of the economy based on knowledge and innovation has been recognised as one of the three priorities for the European Union in this decade. Priorities indicated in the strategy have been assigned eight indicators along with their target values to be achieved by 2020. Two of the indicators are used to monitor progress in building the intelligent economy:

— percentage of young generation members (age group 30–34) holders of a university degree, to reach the level of at least 40% in 2020;

— outlays on R&D activity – 3% of the European Union GDP in the same time perspective.

The region of Central and Eastern Europe exhibited dynamic growth in spreading higher education among the group of 30–34 year-olds in the period from 2010 to 2017. All countries (apart from Estonia) at the start were below the target set for 2020 and they all achieved a considerable increase in the higher education participation rate. The lowest increase was recorded in Bulgaria (4.8 pp) and in Hungary (6.0 pp), the highest in Lithuania (14.2 pp). Poland boasts a healthy rise of 10.2 pp. Owing to such a dynamic spreading of higher education in the age group 30–34, all the countries of the region have significantly shortened the distance to the target, while five of them – Latvia, Estonia, Lithuania, Czechia and Poland have exceeded minimum values indicated in national reform plans. Romania, Hungary and Slovakia should be able to meet the target if they maintain the trend of the previous years, but Bulgaria may find it difficult to deliver on the established goal in 2020.

In terms of expenditure on R&D activity, the countries of Central and Eastern Europe fall definitely short of the target amounts. For example Poland was short by 0.98 pp to the set relation of 1.7% and after six years still remains short by 0.73 pp. Improvement is minor, that is why Poland has achieved only 57% of the target indicator. The situation is similar in Romania, Lithuania, Bulgaria, Slovakia and Hungary – these countries have barely closed the gap to the target value (from 0.02 pp to 0.22 pp). In two countries we have seen a regression – in Estonia and Latvia where the gap has widened by 0.30 pp and 0.17 pp accordingly. Such a slim progress in boosting R&D expenditure results in insufficient implementation of the strategic target of encouraging R&D activity. The degree to which the target has been delivered ranges from 24% in Romania to 67% in Hungary. Czechia remains the sole exception – the country which in 2010 recorded the second highest intensity of R&D activity in Central and Eastern Europe, despite the fact that its target R&D expenditure in relation to GDP was set at only 0.1%, which is the lowest level among countries of the region.

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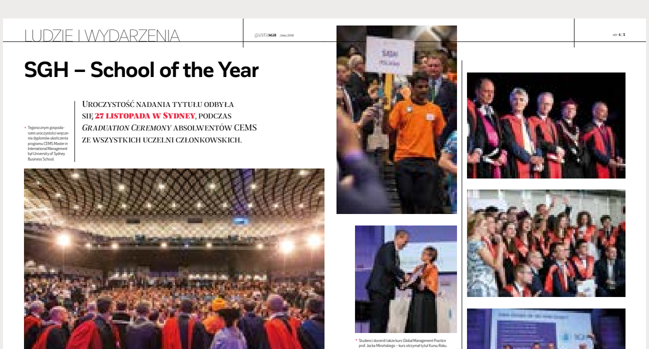

Patchwork capitalism models in Poland and other Central and Eastern Europe countries

The model of capitalism conceived in Poland and the remaining 11 countries of Central and Eastern Europe is institutionally highly incoherent. Due to this incoherence the system has been labelled with a newly coined term of patchwork capitalism.

SGH team headed by Prof. Ryszard Rapacki has been running research into the nature of capitalism born in 11 new EU member states from Central and Eastern Europe (CEE-11). This study allows us to formulate the following conclusions:

— Institutional architecture in CEE-11 countries was closely resemblant of the Mediterranean model of capitalism. Affinity ratios to Spain/Italy amounted on average across the group to 64.0% and 64.4% respectively and were the highest as compared against other countries of reference.

— Simultaneously, the group showed a considerably high institutional affinity to the continental model of capitalism represented by Germany (affinity ratio 57.0%).

— On the other hand, CEE-11 countries possessed the least affinity to the Nordic model of capitalism represented by Sweden. Some exceptions to the rule constitute competitive areas of the goods market and property market in which the studied countries gravitated towards the Nordic model as much as to the continental model.

— A separate analysis of variables representing the inputs and outputs indicates that although most CEE-11 countries resemble the Mediterranean capitalism model in terms of the outputs achieved, looking on the side of the input variables (institutional infrastructure) they display more affinity to the continental model.

The study has found out that various models of capitalism tend to co-exist in the European Union. It also proves the existence of a distinct model of capitalism in most CEE-11 countries. Only two institutional areas diverge from the general scheme – competition on the goods market and financial intermediary system whose institutional architecture is very close to patterns observed in Western Europe, which may be attributed to the unifying influence of *acquis communautaire*.

The model of capitalism conceived in Poland and other CEE-11 countries is marked with enormous institutional incoherence. Due to this incoherence the system has been labelled with a newly coined term of patchwork capitalism, which seems to best define its nature and core constituting qualities. The patchwork nature of Central and Eastern Europe's capitalism can be seen very clearly in the following features of its institutional matrix:

— co-existence of constituting elements borrowed from a few different institutional orders of Western Europe (primarily from the Mediterranean model, but also from the continental model and – with lower frequency – from the Nordic and Anglo-Saxon models);

— combining exogenous and endogenous components in a single structure, where the latter reflect the impact of the heritage of the centrally planned economy, implementation of the system transformation strategy, political compromises made and widely speaking – path dependence;

— systemic incompatibility of the features of the institutional architecture on the inputs and outputs side;

— visible deficit of institutional complementarity both inside particular institutional areas and between them.

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Macro-prudential policies

As compared against the European Union Poland has a relatively low index of the banking sector consolidation.

Macro-prudential instruments serve the purpose of enhancing the resilience of the financial system in case systemic risks should materialise, as well as driving long-term sustainable economic growth. It should be noted, however, that stability of the banking sector is correlated with the level of its consolidation.

Comparative studies of Poland versus other EU countries show that our country exhibits relatively low indicators of consolidation in 2017. According to Herfindahl-Hirschman index (HHI) only Germany, Luxembourg, Austria, Great Britain, Italy, France and Finland were less consolidated (for CR5 consolidation index the same conclusions apply, with Finland replaced by Ireland). It means that in Poland consolidation is the lowest among the 13 new EU member states. Specifically, consolidation in Hungary appears slightly higher and it also is significantly higher in Czechia. At the same time, Poland ranked 11 in terms of ROA index (0.80%). Although this level of the index places Poland in the middle of EU countries, it is one of the lowest among the new EU states except for Croatia and Cyprus. As for the ROE index (6.88%) Poland in 2017 ranked 19 in the European Union. The value of the ROE index follows from the conservative approach of the Financial Supervision Commission to banks' capitals.

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Selected profitability and banking sector consolidation indices in EU countries in 2017

Country	ROA	ROE	HHI	CR5
Austria	0.76%	8.69%	375	36.39%
Belgium	0.67%	8.81%	1102	68.80%
Bulgaria	1.31%	10.16%	906	56.48%
Croatia	0.80%	5.87%	1387	72.79%
Cyprus	–1.04%	–11.55%	1964	84.15%
Czechia	1.09%	13.02%	1028	64.11%
Denmark	0.66%	10.83%	1123	65.65%
Estonia	1.36%	9.20%	2419	90.30%
Finland	0.55%	8.78%	630	48.35%
France	0.42%	6.39%	574	45.38%
Greece	–0.19%	–1.32%	2307	96.98%
Spain	0.52%	6.99%	965	63.70%
The Netherlands	0.54%	8.75%	2087	83.82%
Ireland	0.75%	4.97%	667	45.51%
Lithuania	0.88%	9.12%	2189	90.13%
Luxembourg	0.49%	5.70%	256	26.18%
Latvia	0.88%	7.61%	1235	73.53%
Malta	1.06%	7.23%	1599	80.86%
Germany	0.21%	2.92%	250	29.71%
Poland	0.80%	6.88%	645	47.51%
Portugal	–0.02%	–0.84%	1220	73.10%
Romania	1.28%	11.74%	910	59.40%
Slovakia	0.86%	9.27%	1332	74.54%
Slovenia	1.11%	9.11%	1133	61.53%
Sweden	0.69%	10.87%	914	58.17%
Hungary	1.55%	14.53%	890	52.87%
Great Britain	0.29%	4.30%	453	36.88%
Italy	0.59%	7.14%	519	43.43%

Source: SGH own study based on the data of the European Central Bank, *Statistical Data Warehouse.*

Cartel as an object of economic policy

Advanced economic analytics allows identifying the markets in which cartels may be operating as well as singling out companies likely to engage in collusive schemes.

Pursuant to article 101 of the Treaty on the Functioning of the European Union, cartels are illegal. Pursuant to the article quoted: ‘ *Any agreements between companies, decisions of company alliances and agreed practices which may affect trade between Member States and which are aimed at or may result in preventing, constraining or disrupting competition on the internal single market violate the internal market and shall be banned*‘. The Polish law also regulates this issue. Key relevant regulations have been included in the act on protection of competition and consumers. The aim of this law is to improve the efficiency of eradicating monopolistic practices and protecting fair competition.

The US Department of Justice believes the Penalty Mitigation Programmes to be the most efficient instrument for cartel detection. The American Penalty Mitigation Programme provides for an automatic exemption from sanctions to companies which will be the first to report illegal cooperation to the regulator as long as the case has not been investigated yet and the company making a disclosure of the competition law violation is obliged to immediately abstain from the illegal practice and fully cooperate with US DOJ.

The European Commission, aware of some weaknesses of the European penalty mitigation programme has modified it and made it very similar to the American system. Most of all, the new project provides for a complete exemption from financial penalties, also when an investigation in a given case is already pending.

Along with implementation and improvement of the penalty mitigation programme in order to eliminate cartels, the European Commission allocates increasingly more resources to economic analyses helping detect agreements disrupting free competition on the market. Advanced economic analytics allows identifying the markets in which cartels may be operating as well as single out companies likely to engage in collusive schemes.

From the economic theory point of view, there is no doubt that industries consisting of fewer than 5 companies are cartels, so they should become main targets for the activity of anti-monopoly offices. However, from the legal point of view, this argument may not be used to impose penalties on a company, because a collusive scheme may function as the so called tacit collusion. In order to establish a cartel composed of a small number of companies, there is no need to make secret deals. It will be maintained by mutual monitoring of observable market activities such as price offerings.

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Factors affecting fluctuations in the real effective exchange rate

Poland is the only country in Central and Eastern Europe which saw the real effective exchange rate (REER) sink in 2000-2017 solely due to the impact of the labour cost channel, understood as slower unit labour cost growth (ULC) at home than abroad.

Real Effective Exchange Rate (REER) is a key measure of international price-cost competitiveness of particular countries' economies. In Central and Eastern Europe countries there exist considerable differences concerning the factors affecting changes in the real effective exchange rate. It is mostly due to the selection of various exchange rate systems, but also different degree of flexibility of the labour market and labour market policies implemented. The global financial crisis disturbed and in reference to some countries practically suspended the Samuelson-Balassy effect which assumes real appreciation of the domestic currency as the country continues up the economic growth path.

In Poland in 2000–2017 unit labour costs increased merely by slightly below 24 pp. It was the consequence of not so healthy, slightly over 78-point growth in nominal average wage and a significant, almost 55-point rise in labour productivity. This surge in productivity was achieved with an almost 11-point rise in employment in the national economy. At the same time unit labour cost (ULC) with business partners grew by slightly over 33 points. Nominal effective exchange rate (NEER), in the floating exchange rate conditions, appreciated by a slim figure of below 5 points. As a result, REER slumped. It constitutes a solitary case among the countries studied. It was made possible only due to the effects of the labour costs channel, which means a slower growth in the ULC at home than abroad. During the time of intense crisis (2008–2009) labour productivity edged up and ULC expanded even stronger than in the entire pre-crisis period. A dramatic slump in REER in these years prevented a recession in the real economy (GDP rose by almost 7 points and employment by 4 points). In the post-crisis years (2010–2017) REER levelled off as NEER showed little growth and domestic ULC practically equalled the ULC abroad.

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Decomposition of real effective exchange rate fluctuations in Poland in the years 2000–2017 (in pp)

Factors	Marking	2000–2007	2008–2009	2010–2017	2000–2017
GDP	(1)	32.46	6.94	25.89	**65.29**
Employment	(2)	3.22	4.04	3.44	**10.70**
Labour productivity	(3) = (1) – (2)	29.24	2.90	22.45	**54.59**
Average wage	(4)	35,62	11,27	31,58	**78,47**
Domestic ULC	(5) = (4) – (3)	6.38	8.36	9.13	**23.87**
ULC abroad	(6)	14.58	8.35	10.27	**33.20**
NEER	(7)	13.77	–10.76	1.58	**4.59**
REER	**(8) = (7) + (5) – (6)**	**5.57**	**–10.75**	**0.45**	–4.74

Source: SGH own study based on the data from AMECO base (downloaded on 25 June 2018).

Transactional costs in Poland and other countries of Central and Eastern Europe: comparative study in the transformation period

Postcommunist EU member countries experienced very rapid growth in the level of transactional costs, catching up with or even outperforming the developed capitalist states. Generally, transactional costs increased dramatically in Poland (from 45% up to 68%) between 1996 and 2002, however, recently they have been on a downward trend except for a short period of stability/slight growth in the years 2006, 2008 and 2014.

Transactional costs measured in the long term (e.g. 100 years), it means the costs of business activity, being costs of the functioning of the market system and not the costs of manufacturing consumer goods, indicate that their share in the national product has been on the rise. A long-term upward trend for the relation: macroeconomic transactional costs – the value of final goods and services, observed for some of the most developed market economies, was also noted for a much shorter transformation period of post-communist countries in Central and Eastern Europe at the turn of the 20th and 21st century. Transactional costs in Poland generally increased rapidly (from 45% to 68%) between 1996 and 2002, but recently have shown a downward trend, apart from a short period of stability/slight growth in 2006, 2008 and 2014. The considerable rise in transactional costs until 2002 was owed to deep institutional restructuring which took place in the Polish economy.

The following conclusions related to transactional costs may be formulated for post-communist countries:

1. In all the countries studied – both those of advanced capitalism and of post-communist transformation – the level of transactional costs in relation to the national revenue was rising continuously (generally from the level of about 30–40% up to about 55–70%).
2. Post-communist countries, members of the European Union (Poland, Bulgaria), showed very rapid increase in transactional costs in the periods studied, catching up with or even outperforming (Poland) countries of advanced capitalism.
3. European areas remaining outside of the European Union are characterised by a lower level of transactional costs in relation to the national revenue by about 20 pp.
4. Discrepancies in the levels of transactional costs may result both from researchers disregarding part of the transactional activity in the manufacturing sector as well as from differences in the advancement of the market transformation.

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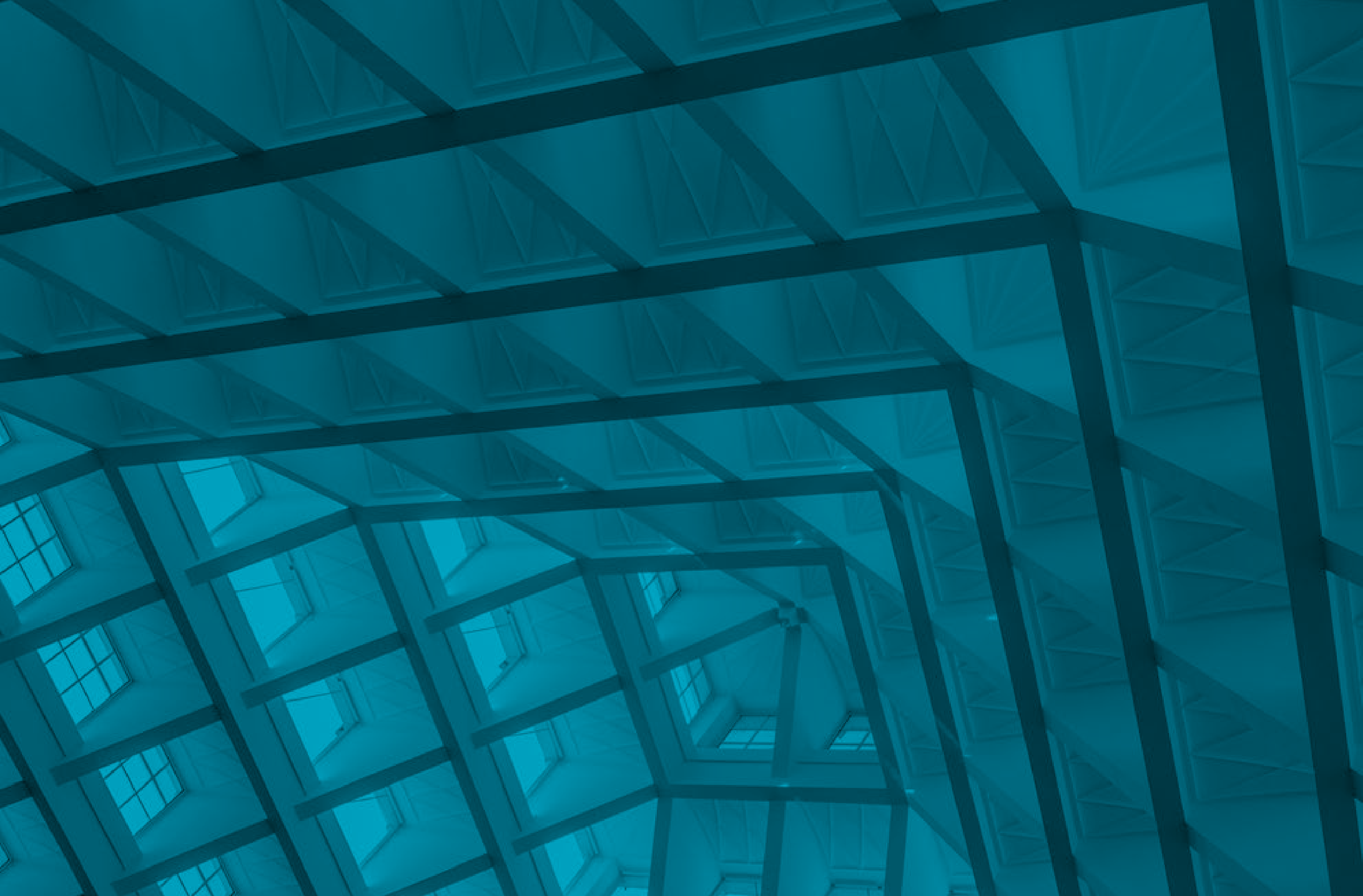

BUSINESS

2

INVESTOR'S PERSPECTIVE VERSUS CONDITIONS FOR DOING BUSINESS IN SELECTED SECTORS OF CENTRAL AND EASTERN EUROPE.

In this chapter we will study business issues – especially from the investor's perspective as well as conditions for running a business in selected regions of Central and Eastern Europe. We also take a look at the start-up support system and two exceptionally important economic sectors: agriculture and the transportation system.

Changes in the area of Central and Eastern Europe from the investor's perspective

Among the regions of Central and Eastern Europe approximately only one in five was rated as possessing outstanding potential investment attractiveness.
Among the regions of Central and Eastern Europe in the years 2007–2016 the highest growth was recorded in Lithuania, Poland (dolnośląskie, małopolskie and wielkopolskie voivodeships) and Slovakia (Západné Slovensko, Stredné Slovensko, Východné Slovensko).
In subsequent years we could feel the impact of investments and exceptional growth in the region of Central and Eastern Europe as compared against the old EU member states. Three years later the ratings of potential investment attractiveness were improved in 21 regions and in subsequent three years the ratings increased in another 14.

The notion of investment attractiveness addresses the question whether investing in some area is worthwhile. The notion may be defined as 'an ability to persuade investors to choose a given region as a location for investments'.

Research conducted under the supervision of Prof. Hanna Godlewska-Majkowska in the years 2007–2016, covered all regions of the European Union at NUTS 1 level (macroregions) and NUTS 2 level (voivodeships).

Regions located in the centre of the European Union – in the belt between the capital of Great Britain and Austria – possess the highest potential investment attractiveness. Regions of Central and Eastern Europe along with regions of Southern Europe are peripheral areas, as a consequence being the least developed regions of the European Union. Additionally, a discrepancy between the centre and other regions has been widened by the historical legacy of Central and Eastern Europe and the economic crisis in the South of Europe.

Among the regions of Central Europe only one in five received an outstanding rating of its potential investment attractiveness. On the one hand, it is a slim margin, especially considering the amounts of funds allocated to the development of Central and Eastern Europe under the Cohesion Fund of the European Union. On the other, however, it would be difficult to expect all development barriers to be removed in such a short period. Nevertheless, the appearance of territorial units in two top classes of potential investment attractiveness proves that some regions were able to grab the opportunity offered by the European Union accession.

It is the capital city regions that were rated the highest in terms of their potential investment attractiveness. The above mentioned territorial units are located in Bulgaria, Estonia, Czechia, Romania, Slovakia and Hungary. It is important to note the appearance of strong regional growth poles, such as Lower Silesian or Pomeranian Voivodeships in Poland as well as Stredni Cechy and Jihovýchod in Czechia.

In 2007 the lowest rated territorial units (class F) were the regions of Eastern Poland, Bulgaria and Romania. However, the closer to the Western border, the higher potential investment attractiveness was rated. The global economic crisis and a limited number of investments co-financed with EU structural funds affected the assessment of the potential investment attractiveness in 2010. The majority of territorial units at NUTS 2 level did not change their investment attractiveness rating on the previous period, but as many as 7 out of 52 regions saw their rating deteriorate. The glorious exceptions were Lubuskie and Mazovian Voivodeships. As compared against the countries of the former European Union, consecutive years have brought more investments and outstanding growth in the Central and Eastern Europe region. Three years later the rating of potential investment attractiveness improved in 21 regions and in subsequent three years, in another 14. As a result, the lowest class of potential investment attractiveness is found in a total of 7 regions of Central and Eastern Europe: four in Romania, two in Bulgaria and one in Hungary.

In Poland the condition of the environment bettered, but the social and economic development inevitably implies environmental degradation as well as higher material and energy consumption. One of the ways of dealing with environmental issues are green innovations. A complex index of green innovations presents Poland's unfavourable situation as it has been classified in the group of uninnovative and environmentally unfriendly countries of Europe. Poland has been ranked in the weakest group along with a majority of Central and Eastern Europe countries. Even in this group there is a wide gap visible between Poland and Czechia.

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Start-up support systems in Central and Eastern Europe

Designing efficient systems of supporting start-ups has nowadays become not merely an ornament in the national economic policy, but its pivotal element aimed at driving innovation and entrepreneurship in the economy.
Among the analysed countries of Central and Eastern Europe only two do not offer any tax relieves on R&D expenditure: Estonia and Ukraine. Yet, Estonia provides a CIT tax exemption on total retained and reinvested profit. Estonian companies which invest a lot of their resources into development are not obliged to pay income tax.

Start-ups are becoming an increasingly important element of the process of improving innovativeness of Central and Eastern Europe economies. Creating efficient systems of supporting start-ups is currently not only an addition to the economic policy actions but one of its key elements aimed at driving innovativeness and entrepreneurship in the economy.

Tax systems in most Central and Eastern Europe countries do not offer any special tax incentives to start-ups, focusing more on small and medium-sized companies or innovative activity as such. Complicated tax law in most countries of the region poses a serious problem. Also other weaknesses have become visible, among others: high bureaucratic barriers, high capital needs for setting up companies or insufficient level of intellectual property protection.

Some of the countries, especially the Baltics offer considerably less strict tax and administrative solutions, which makes them competitive in the region. They usually also ensure lower bureaucratic barriers and facilitate founding companies. Countries of the region differ significantly in terms of the labour law provisions, which helps them gain advantage over others offering flexible forms of employment.

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Most important tax incentives for start-ups in Central and Eastern Europe countries

Country	Tax breaks on R&D (Yes/No)	Tax incentives for SMEs (also incentives for other types of companies)	Other tax incentives, dedicated to R&D activity or start-ups
Bulgaria	Yes	Not identified	Not identified
Czechia	Yes	Tax relief up to 10 years on some investments	Not identified
Estonia	No	Exemption from CIT tax on retained or reinvested profit	Not identified
Lithuania	Yes	CIT tax reduction for microenterprises CIT tax 0% rate for small enterprises in the first year of operation Double deduction of investment costs into fixed assets	Reduction in CIT tax on profit generated as a result of using or selling intangible assets
Latvia	Yes	Not identified	Flat rate tax for start-ups Support for highly qualified employees Increased depreciation of assets in the form of new technologies or intangible assets
Poland	Yes	Reduced social security contributions for new entrepreneurs	Accelerated depreciation of innovative investments Exemption from the tax on intellectual property when it is in the form of contribution in kind
Romania	Yes	Reduced tax rates for microenterprises and newly founded companies 0% tax rate on the profit invested in new technological equipment used in the business	Accelerated depreciation of investments in R&D assets Tax exemptions for persons working as IT specialists and in R&D sector
Slovakia	Yes	Not identified	CIT tax exemption on commercial use of intangible assets
Ukraine	No	Special tax regulations with lower rates for small enterprises	Exemption from VAT tax for IT companies on the software provided
Hungary	Yes	Tax relief for SMEs based on the interest on loans for investments into fixed assets	Reduced social security contributions and professional training courses for scientists Tax relieves on R&D

Source: SGH own study.

European Model of Agriculture – evolution conditions

The European model of agriculture may not survive in the era of globalising economies – at least in the current version. Globalisation, if not accompanied by appropriate political and economic activity, may lead to a degeneration of the European agriculture model followed by its complete denial or vanishing, which will cause a serious demeanour of the EU member states' agriculture.

EU agriculture possesses very special qualities which first of all derive from the regional specifics, tradition and only remotely from the regulations of agriculture policies. These key qualities are: lower unit potential of farms, high share of family labour and part-time labour, low scale of production, low level of specialisation (multidirectional production), high prices of land.

As a result of progressing globalisation it has become increasingly more doubtful whether the European Agriculture Model (EAM) may effectively compete on the global market. Is this model able to survive without the protective 'safety net' which is certainly provided by the Common Agricultural Policy (CAP)? And finally, is this model doomed in the circumstances of overwhelming globalisation in agriculture and agrobusiness?

In general the future of EAM is determined by two groups of factors. They are as follows:

1) Activities under the Common Agricultural Policy: 'shield' activities (budget subsidies, market mechanisms), restrictive activities (using quota and limiting production, in the current decade also discontinuing production – sugar, wine), strict technological and environmental regimes.

2) Processes resulting from the globalisation of the world economy: higher demand for food, growing world trade in food as a consequence of increasing liberalisation in the exchange of goods (growing influence of non-European regions), growing importance of non-agricultural links of agrobusiness (TNC), increasing significance of crops in non-agricultural production (biofuels), slow but systematic increase in GMO-plants and GMO-animals.

A large majority of the above presented processes allow us to formulate a conclusion that the European Agriculture Model may not be able to continue in the era of globalising economies. At least in its present shape. Globalisation without appropriate political and economic actions may lead to a degeneration of EAM and as a consequence its denial or vanishing causing degradation of the EU agriculture.

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Evolution of the transportation system in Central and Eastern Europe (selected problems)

In the years 1990–2015 the network of motorways in nine countries of Central and Eastern Europe grew over threefold, from 1888 km in 1990 to 6618 km in 2015.
Since 2005 Poland has built over 1000 kilometres of new motorways and in 2015 had a network of 1559 km of top standard roads – about seven times more than in 1990.
Nevertheless, we cannot expect all needs related to new high standard road construction to be met in Central and Eastern Europe by 2030.

Since the beginning of the 1990s of the 20th century transport infrastructure in Central and Eastern Europe has been considerably modernised. In terms of the condition of the infrastructure possessed at that time all countries of the region found themselves in a similar starting point and passed through the same transformation process.

In 1990 in all nine countries studied there existed only a fractional network of high category roads – motorways. In the following 25 years their length grew over threefold, up to 6618 km in 2015. This expansion gained momentum in the period 2005–2015 when particular countries became members of the European Union and got access to EU operational programmes and infrastructure project funds. One of the main beneficiaries of these instruments is Poland which, starting from 2005, built over 1000 km of new motorways and in 2015 had a 1559 km network of highest standard roads – almost seven times more than in 1990. There are still many investment projects pending the outcome of which will be a transportation network connecting to Trans-European Corridors. Nevertheless, we cannot expect all needs related to new high standard road construction to be met in Central and Eastern Europe by 2030.

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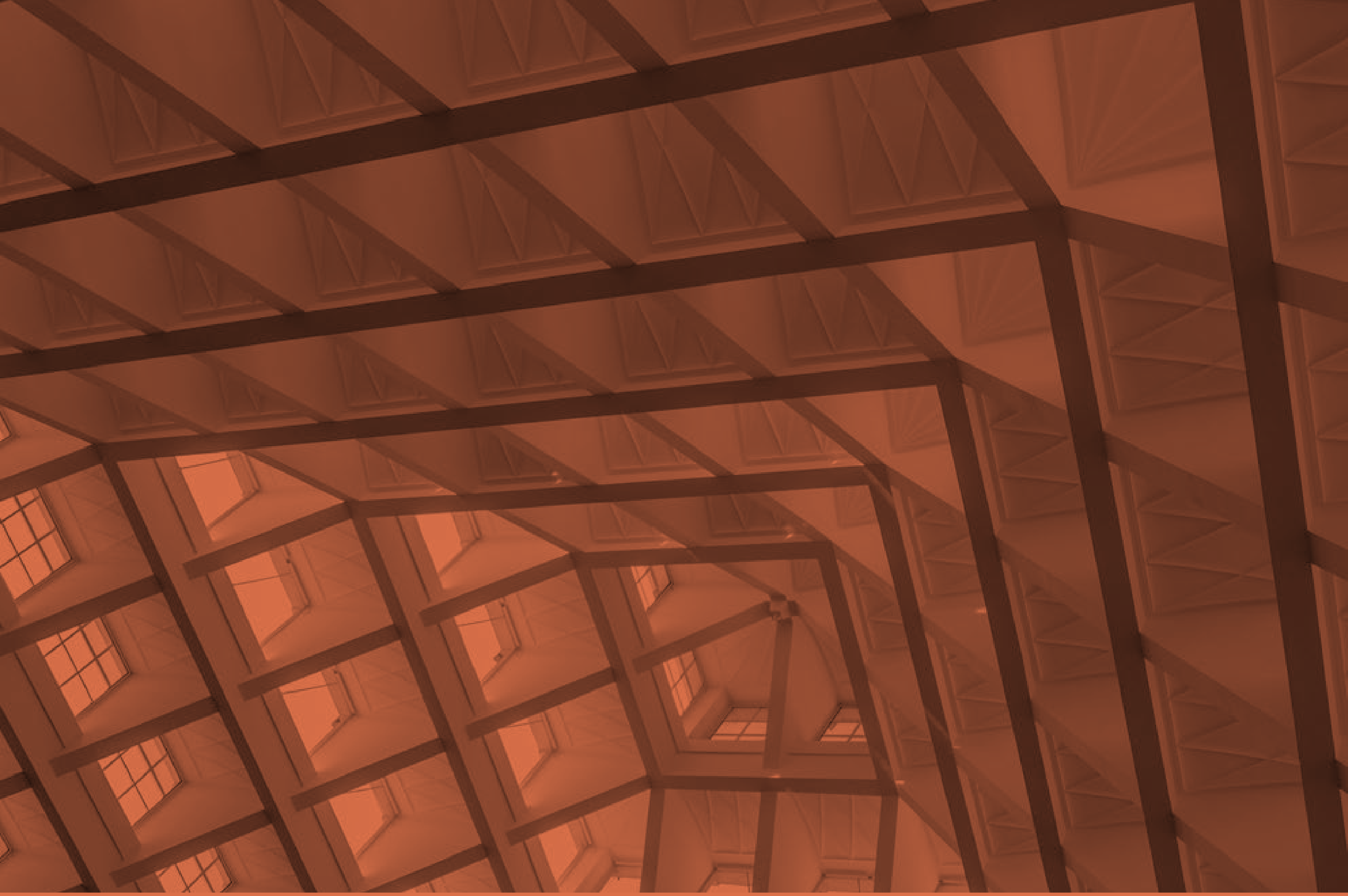

LOW-EMISSION GROWTH

3

STRATEGIES FOR LOW-EMISSION DEVELOPMENT IN COUNTRIES OF CENTRAL AND EASTERN EUROPE

The purpose of analyses in this chapter are strategies for low-emission development in Central and Eastern Europe countries and their implications.

Strategies for low-emission transport development in Central and Eastern Europe in the light of the European Union requirements

Enhancing the role of multimodal transportation in domestic systems and as a consequence in the transport system of the whole region remains a strategic task in Central and Eastern Europe countries.

The study focuses on problems of development strategies for low-emission transport in Central and Eastern European countries (CEE) versus the European Union requirements. The analysis conducted based on a review of domestic strategies has been supported by data on the use of low-emission transport, investments into railway infrastructure in CEE countries in 2007–2016 as well as findings of the study run under ChemMultimodal project carried out by SGH Warsaw School of Economics as part of the Interreg Central Europe programme.

Based on the findings from the analysis of plans and strategies for the transport sector in particular CEE countries, it is possible to identify common strategic goals oriented towards developing a modern, efficient, productive and safe transport sector, such as:

— Improving the competitiveness and efficiency of the transport sector in economic, social and environmental terms, chiefly through effective maintenance, modernisation and development of transport infrastructure, reduction in fuel consumption and raising energy efficiency of transport, limiting the environmental and public health footprint of transport through reducing greenhouse gasses and noise emissions, increased safety of the transport system, cutting down on the number of crashes.

— Increasing the quality and availability of transport in the internal perspective, in all country regions and in the external perspective through improving the coherence of domestic transportation system connections with the European and global system.

— A rise in inter-operativeness of transport through investments in modernisation and extension of the transport infrastructure paying special attention to increasing the potential of multimodal solutions development, specifically in the Trans-European Transport Network TENTEC.

— Improving ways of organising and managing the transport system, including among others the implementation of a rational investment financing model and ensuring institutional conditions supporting the servicing of infrastructure investments.

— Undertaking activities aimed at the implementation of new technologies supporting transport system management.

Additionally, the analysis of specific goals in the light of the above mentioned general goals leads us to conclude that a strategic goal in CEE countries is enhancing the role of multimodal transport in domestic systems and as a result in the transportation system of the entire region. The widest definition of multimodal transport says it is carrying shipments using at least two means of various transport branches, based on the agreement on multimodal transport, from the despatch point where the shipment was entrusted to the multimodal transport operator (or is organised independently) to the point of delivery. The underlying principle in combining various branches and means of transport is for the shipment to be performed in a dominant part using low-emission transport means, i.e. rail transport, inland waterway transport or short-range sea transport preferably applying techniques of multimodal transport (which means carrying shipments in one integrated loading unit, e.g. a container or vehicle using various means of transport).

In terms of the volume of shipments carried by rail transport in the years 2007–2016, the highest share was observed in Poland – at the level of 36% of all shipments transported on the territory of CEE countries. The second country with the highest number of shipments carried was Czechia (14%), then Latvia and Romania (9% each) and Lithuania and Hungary (8% each). Investments made in CEE region confirm activities undertaken in order to develop rail transport and improve the quality of infrastructure. These three countries have financed the most investments: Poland (21% of all the expenditure in the years 2007–2016 in the countries studied), Czechia (27%) and Hungary (18%).

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Strategy for low-emission development of the EU and its implications for member states from Central and Eastern Europe

The leader in accomplishing climate and energy targets set for 2020 in Central and Eastern Europe is Estonia, which in 2016 met the energy consumption reduction goals set for 2020. Estonia has also been a leader in increasing the share of renewable energy sources in the consumed energy.
The established EU goal for a reduction in greenhouse gasses emissions may be very hard to deliver by the Central and Eastern Europe states.
For countries of the region, a greater challenge is presented by bringing down energy consumption than by increasing the share of renewable energy sources. Apart from Estonia, final energy consumption has been gradually limited by Croatia, Slovenia, Lithuania, Latvia and Czechia.

Energy management is an important domain affecting the level of greenhouse gasses emissions and, in effect, climate changes. The study conducted an analysis of initiatives and activities undertaken from 2000 to 2017 in the European Union under the energy and climate policy in order to transform the EU economy into a low-emission economy.

Having analysed the progress achieved by Central and Eastern Europe countries in meeting climate and energy goals set for 2020, Estonia appears to be a clear leader. This country in 2016 met the goals set for 2020 in reducing energy consumption as well as growing the share of renewable energy sources in the energy used.

For countries of the region, a greater challenge is presented by bringing down energy consumption than by increasing the share of renewable energy sources. Apart from Estonia in 2016 the following other countries limited their final energy consumption: Croatia, Slovenia, Lithuania, Latvia and Czechia. These are the countries which in 2016 had a distance lower than 1m toes to the goal established for 2020. Romania sets an interesting example as it not only met the targets, but achieved the energy consumption level well below the assumed threshold (about 8 m toes).

The analysis of the share of renewable energy sources in final energy consumption in 2016 indicates that most Central and Eastern Europe countries delivered on their energy commitments. The following countries are exceptions to this regularity: Latvia, Poland, Slovenia and Slovakia. It is worth noting that these four countries are by about 2–4 pp below the target. It means that meeting this target by 2020 is still probable. The situation of Croatia is somewhat special as it not only met the target imposed for 2016, but achieved 8 pp of 'surplus' in relation to the value forecast for 2020.

As far as greenhouse gasses emissions are concerned, also in the energy sector, a downward trend is observable in the period studied. However, the EU reduction goal set for the countries of the region may be hard to achieve. In 2015 only Estonia was really close to meeting this goal and the gap to the target was 0.3 pp. The gap for other countries amounted respectively to: 8.5 pp for Czechia; 8.4 pp for Poland; 9.2 pp for Latvia; 12.6 pp for Lithuania; 13.3 pp for Slovenia and 17.6 pp for Romania; 21.7 pp for Bulgaria; 23.5 pp for Croatia; 25.2 pp for Slovakia and 28.6 pp for Hungary.

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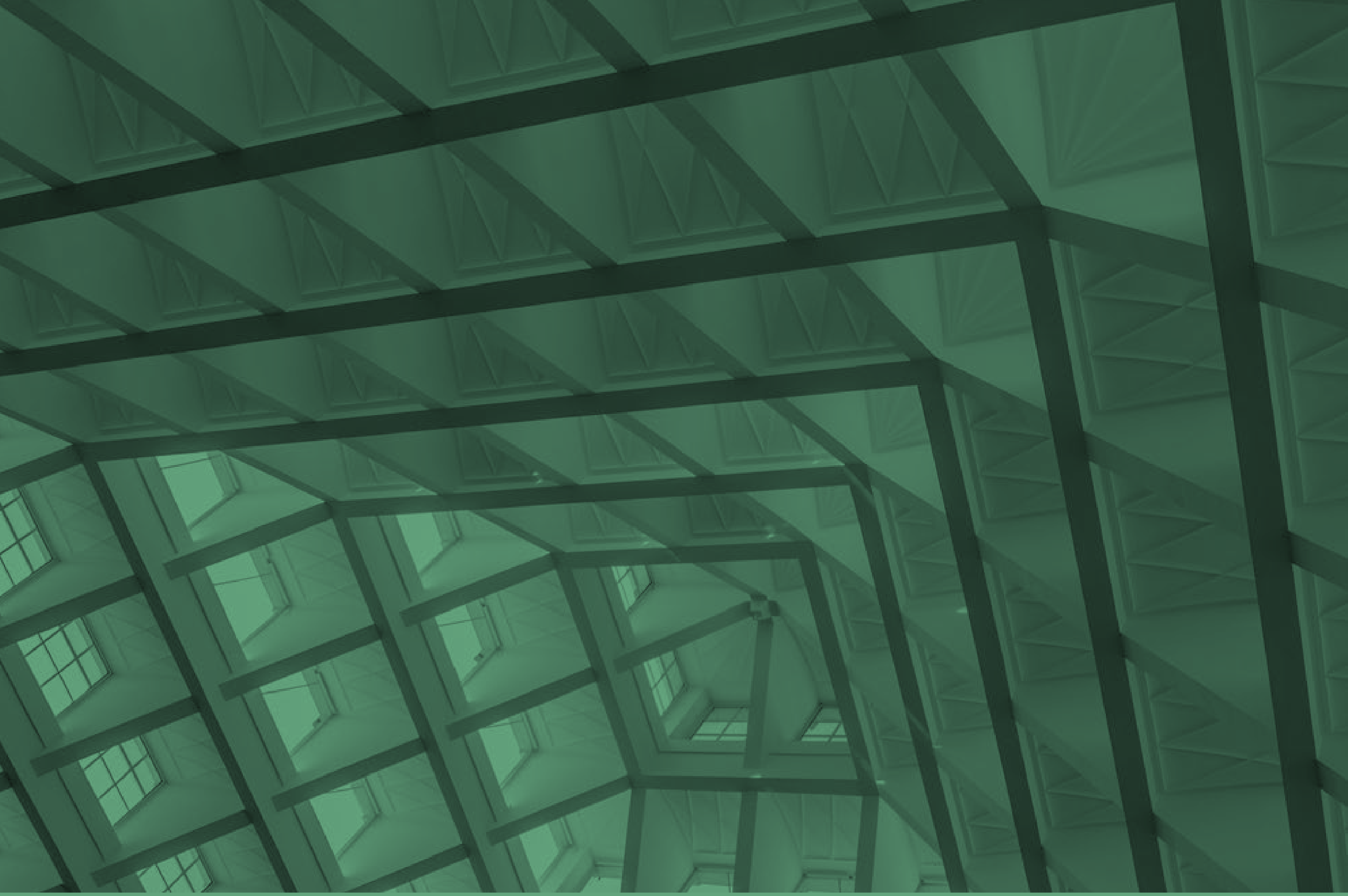
Progress made by EU member states from the region of Central and Eastern Europe in meeting the climate and energy goals set for 2020

Region	Consumption of final energy (m toes 2016)	Goal: final energy consumption (m toes 2020)	Meeting the goal: Yes/No	Share of renewable energy sources in final energy consumption 2016 (%)	Goal: share of renewable energy sources in final energy consumption 2020 (%)	Meeting the goal: Yes/No
Bulgaria	9.7	8.6	No	18.8	16	**Yes**
Croatia	6.6	7	No	28.3	20	**Yes**
Czechia	24.8	25.3	No	14.9	13	**Yes**
Estonia	2.8	2.8	**Yes**	28.8	25	**Yes**
Lithuania	5.1	4.3	No	25.6	23	**Yes**
Latvia	3.8	4.5	No	37.2	40	No
Poland	66.7	71.6	No	11.3	15	No
Romania	22.3	30.3	No	25	24	**Yes**
Slovakia	10.4	9	No	12.0	14	No
Slovenia	4.9	5.1	No	21.3	25	No
Hungary	17.9	14.4	No	14.2	13	**Yes**

Source: SGH own study based on Eurostat data.



DEMOGRAPHICS

4

DEMOGRAPHIC CHANGES AND THEIR IMPLICATIONS FOR CENTRAL AND EASTERN EUROPE

In this chapter we consider demographic changes, in particular in terms of the labour market and social care as well as the reform of pension systems.

Demographic changes in Central and Eastern Europe versus economic growth prospects

In the years 2018–2040 the expected supply of labour in most Central and Eastern Europe countries will shrink on average by 0.5–1%.
As a result of the shrinking labour supply, average economic growth rate in the countries of Central and Eastern Europe will decrease from 2–4% observable since the beginning of the 21st century down to 1.5–3% forecast for the years 2018–2040.

In the years 2018–2040 potential labour supply in most countries of Central and Eastern Europe will be shrinking by an average annual value of 0.5–1%, which will mean Poland and other countries of the region facing problems of the sources of further economic growth, similar to the ones observable now in the countries of Western Europe.

Owing to the shrinking labour resources, maintaining the average annual economic growth of the recent over dozen years will be increasingly more difficult in Central and Eastern Europe. Little comfort comes from the fact that the potential for economic growth in Western Europe countries will probably be even lower, therefore we should be able to see a further gradual convergence of GDP growth in Central and Eastern Europe countries with levels recorded in countries of Western Europe based on continuous catching up with labour productivity levels. Forecasts based on anticipated changes in production factors indicate that the average rate of sustainable economic growth in the future will be significantly slower than the potential observable today and in the past. In particular the average economic growth rate in Central and Eastern Europe countries will fall from 2–4% noted since the beginning of the 21st century down to 1.5–3% forecast in 2018–2040. In France and Germany the average growth in the future may remain on the level recorded already at the start of the 21st century, that is about 1% annually.

The main determinant affecting weaker potential economic growth rate in the countries of Central and Eastern Europe will be the negative impact of the labour factor. Fluctuations in the labour factor will be related not only to a shrinking number of working-age population, but also an increasing share of people over 50 years of age in the so called working-age population resources.

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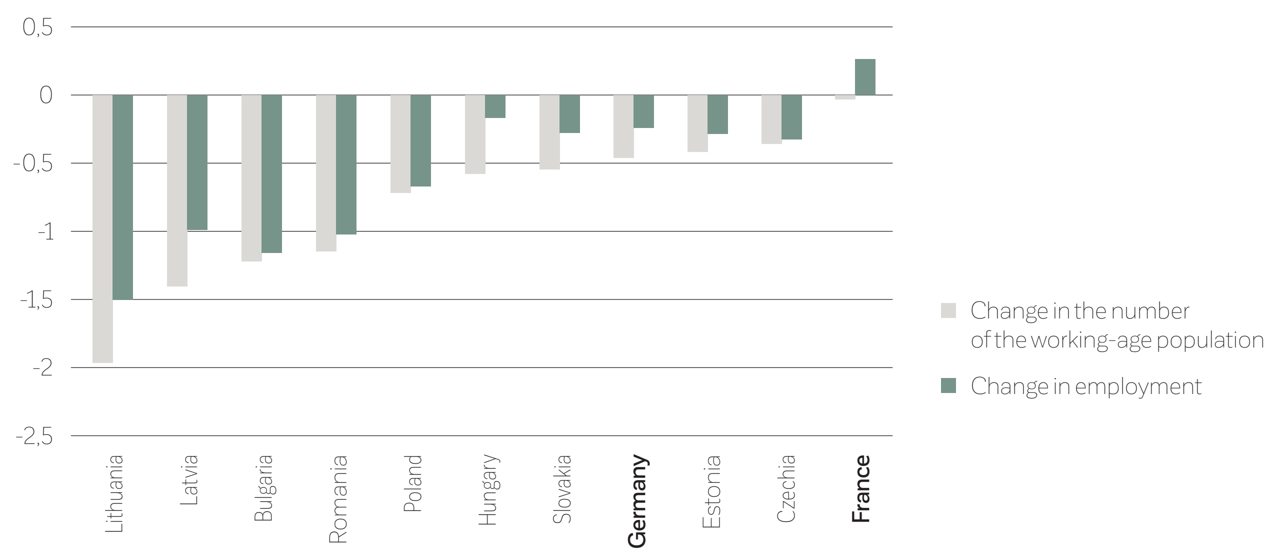
Forecast average annual changes in labour supply and employment in the years 2018–2040



Source: SGH own study based on Eurostat and the European Commission data.

Labour versus care in the conditions of changes in demographic structures of Central and Eastern Europe

Not only is the population of Europe the oldest in global scale and will continue this way, but also Europe is the only continent experiencing a fall in the number of working-age persons.
Underdeveloped care services in Central and Eastern Europe countries are a barrier to keener economic growth, as they hinder more efficient use of a dwindling pool of labour resources.

Not only is the population of Europe the oldest in global scale and will continue this way, but also Europe is the only continent experiencing a fall in the number of working-age persons. With dwindling potential labour resources their ageing, which means a growing share of persons aged 50/55–64 may additionally restrain economic growth potential.

Potential limitation to economic growth in Central and Eastern Europe countries is not only related to a much higher intensity of changes in the age structure, but also to relatively scarcer opportunities of preventing a slump in labour supply through increased professional activity due to difficulty in combining professional activity with care obligations. In other words, underdeveloped care services in Central and Eastern Europe countries constitute a barrier to economic growth because they do not allow for a more efficient use of the shrinking potential labour resources. Our study pertains to the following 8 countries of the region: Bulgaria (BG), Czechia (CZ), Croatia (HR), Hungary (HU), Poland (PL), Romania (RO), Slovenia (SI) and Slovakia (SK).

In all countries of the European Union one third of men at the age of 55–64 and 48% of women at the same age have been professionally passive, which adds up to 26 m people (10.3 m men and 15.7 m women). It should be noted that starting from 2002, the most dramatic fall in the proportion of persons remaining professionally inactive was observed among this age group members. In 2017 in Poland there were 2.6 m professionally passive people at the age of 55–64, in which women accounted for 62.8% (this proportion was one of the highest in all the countries analysed). In Bulgaria there were 373.5 thousand professionally inactive people (with women accounting for 58.5%), in Czechia the number was 483.4 thousand (63.9%) accordingly, in Croatia – 338.3 thousand (59.6%), in Romania 1.4 m (62.6%), in Slovenia 160.2 thousand (55.7%) and in Slovakia 319.8 thousand (56.2%).

Central and Eastern Europe countries vary on the reasons underpinning professional passivity among the 55-64 age group. The most frequent motivation is retirement, however, its proportion varies largely among the countries. In Poland and Hungary over 40% of men at the age of 55–64 were professionally passive due to a health condition or disability. What is important, in Croatia for over 24% of women at the age of 55–64 the motivation for withdrawing from the workforce were family and care commitments. For Poland this proportion amounted to 16.3%, whereas for Bulgaria and Slovakia almost to 20%. The data confirms the existing inability to combine work and family duties among women at the pre-retirement age in these countries, which may contribute to earlier professional inactivity of this group of persons. In order to halt the anticipated slump in the professionally active/working population there need to be undertaken some activities aimed at increasing the availability of institutional child care and formal care services for the elderly.

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Reforms of retirement systems in Central and Eastern Europe countries, pensions and consumption of the elderly in the context of demographic changes under way

The ageing population requires changes in pension schemes in order to keep them stable and adequate. In recent years practically in each Central and Eastern Europe country some alterations have been made to the pension system. One of the vital accomplishments of almost all countries of the region has been equalling the retirement age of men and women, which has posed a political challenge. Poland and Romania are still facing the test.

The ageing population requires changes in pension schemes in order to keep them stable and adequate. Central and Eastern Europe countries for many years have been changing their retirement systems to brace for the upcoming turnaround. Experiences of recent decades indicate that retirement systems have been undergoing almost permanent changes resulting, on the one hand, from implementing structural reforms, and on the other, from ongoing pressures of the existing social and economic situation.

In 2014–2017 many changes were designed to improve the adequacy of benefits and their social stability. It equally applies to Central and Eastern Europe countries. In recent years, practically in each country there have been some changes made to the retirement system, in most cases aimed at increasing the adequacy of benefits. Among the analysed countries, it was Bulgaria which implemented a reform package accounting for almost all parameters of the retirement system, including a rise in pension contributions. The other countries introduced corrective changes.

The level of income protection in retirement systems of the analysed countries is varied. In Czechia, Estonia, Hungary, Poland and Slovakia pension transfers under the public retirement systems allow covering private consumption of persons at the retirement age. In Bulgaria, Latvia and Lithuania private consumption exceeds benefit income, which means additional transfers need to be acquired from other sources.

One of the significant accomplishments of almost all countries of the region is raising and equalling of the retirement age for men and women, which posed a serious political challenge. This activity allows maintaining the stability of retirement systems at the same time ensuring adequacy of the paid benefits at a level only slightly lower than currently. Poland and Romania are still to face the challenge.

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Changes in the retirement systems adopted in Central and Eastern Europe countries from 1.07.2014 to 1.07.2017

Country	Parameters affected by changes													
	Contributions	Benefits paid	Valorisation of benefits	Taxation of benefits	Special categories	Earlier retirements	Conditions for awarding a benefit	Insurance period	Combining work and retirement	Retirement age: Linked to life expectancy	Retirement age: Equalling the age of women and men	Retirement age: Ad-hoc changes	Additional pensions	Other
Bulgaria	x	x			x	x		x	x	x	x	x		
Czechia			x				x			x		x	x	x
Estonia													x	x
Latvia			x	x	x								x	
Lithuania		x	x				x							
Poland							x					x		
Romania	x			x	x	x			x					
Slovakia			x				x							x
Slovenia									x				x	
Total	**2/9**	**2/9**	**4/9**	**2/9**	**3/9**	**2/9**	**4/9**	**1/9**	**3/9**	**2/9**	**1/9**	**3/9**	**4/9**	**3/9**

Source: SGH own study based on the data from the European Commission.

Labour markets of selected countries of Central and Eastern Europe – situation diagnosis, trends, reform proposals

The biggest challenge facing Central and Eastern Europe countries is a sustained increase in the professional activity rate of their populations.
Social security system reforms should be performed parallel to reforms of the institutional job market, aimed at encouraging employers to boost the demand for labour, as well as together with changes increasing the flexibility of the Labour Code and constraining job emigration.

Labour markets of Central and Eastern Europe countries (CEE) have a different situation than the countries of Western Europe, taking into consideration employment and professional activity ratios as well as the proportion of long-term unemployment in general unemployment rate. However, the observed ratios are visibly lower (the proportion of long-term unemployed – higher) than the values recorded in more wealthy countries, particularly in the Netherlands, Sweden and Denmark. These discrepancies get even wider when referred to a decomposition of the above ratios for particular age groups and genders (specifically for women). Differences in the above ratios occasionally reach over dozen percentage points, which allows concluding that even with no changes in labour efficiency, growth dynamics of some CEE countries could be higher than the currently observed. The values of these ratios are affected by institutional factors.

In relation to the domestic labour markets, we have found out that the toughest challenge facing all of the countries in question is increasing the professional activity ratio of their populations. Having carried out analysis of this ratio with distinction into gender and selected age groups, we concluded that there exist opportunities for the Labour Force Participation Rate (LFPR) to increase, particularly in the pre-retirement age group (55–64) and in the sub-population of women.

A common element for countries of Western Europe and CEE is the advancement of the demographic population ageing processes. What sets them apart, though, is the dynamics. In western countries demographic ageing processes show a stable rate of change, but in CEE countries, since mid 1990s of the 20th century demographic ageing has been fairly rapid, which may be observed in the changes in life expectancy of men and women at birth and at the age of 65, as well as a growing value of the demographic aged dependency ratio. These processes impact on the age structure of the population, determining the volume of pension and healthcare expenditure.

Without the necessary reforms aimed at raising the statutory minimum retirement age and relating it to the changes in life expectancy, a deficit in the social security sector generated this way will require imposing an increased fiscal burden on the currently working generation. This, in turn, will affect growth dynamics, extending the convergence process with more wealthy countries of Western Europe.

Social security system reforms should be accompanied by reforms on the institutional labour market whose purpose will be to provide stronger incentives encouraging employers to increase demand for labour, at the same time raising the flexibility of the Labour Code and restraining economic emigration. Creating a flexible labour market should allow for a more dynamic flow between the labour market resources, and as a result, increased GDP per capita and shorter period of convergence of CEE countries with the wealthier West Europe states.

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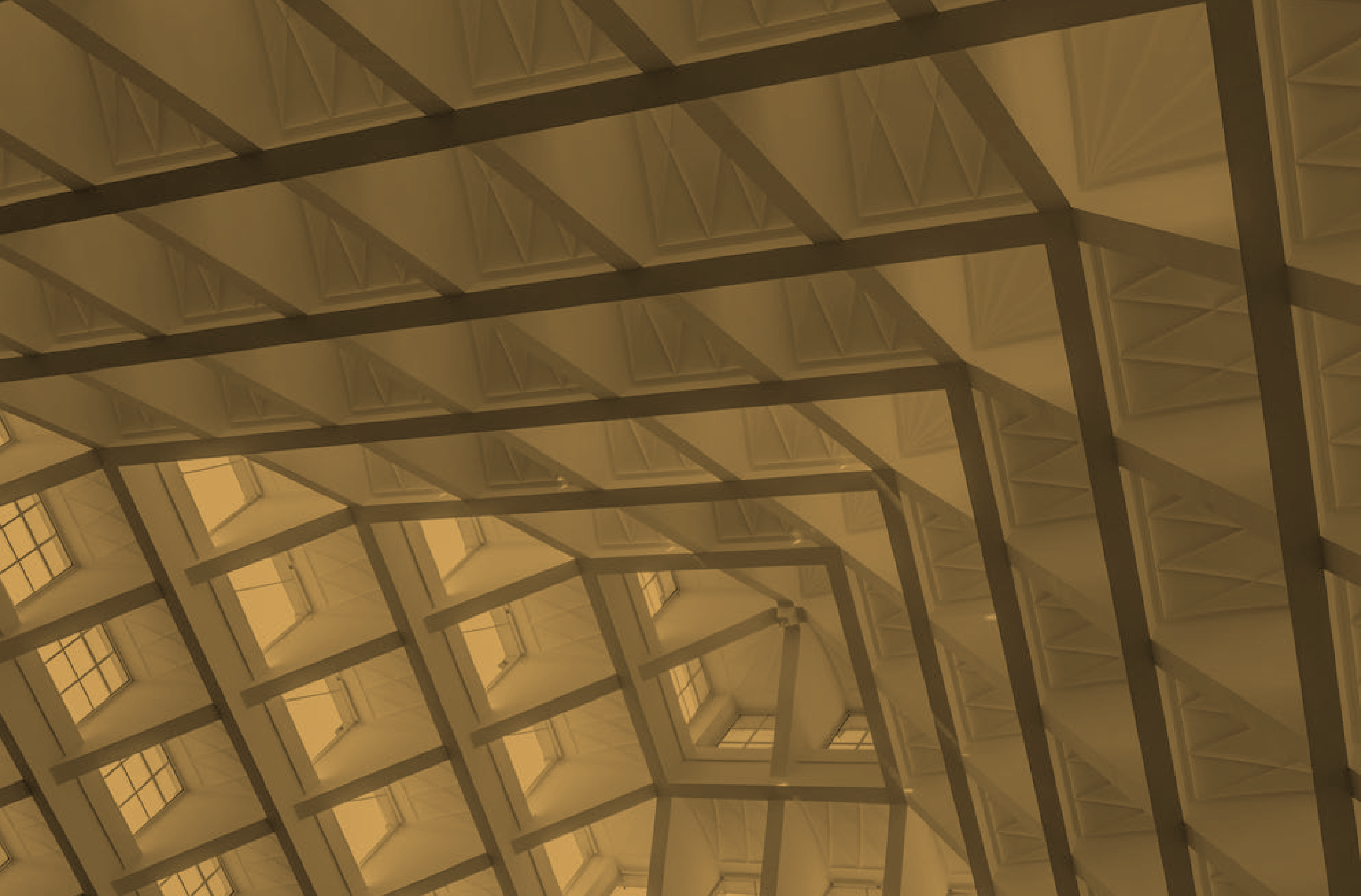

THE TAX SYSTEM

5

CHALLENGES INVOLVED IN CLOSING LOOPHOLES IN THE TAX SYSTEMS OF CENTRAL AND EASTERN EUROPE COUNTRIES

In this chapter we intend to study challenges involved in closing loopholes in tax systems of Central and Eastern Europe countries as a priority for an efficient state. We will also shed more light on the problems of VAT non-compliance in Central and Eastern Europe countries.

Closing loopholes in the tax system – a priority for an efficient state

Legal solutions for preventing international tax evasion implemented in Poland may appear ineffective. What is required are solutions which can be, on the one hand, efficient in dealing with entities engaging in aggressive tax avoidance practices, on the other, may prove practical in supporting the interests of entrepreneurs seeking a 'friendly' regulatory environment.

Sealing the tax system has become one of the most important goals of the state policy. In the era of globalisation and increased tendency of companies to apply aggressive tax avoidance practices, sealing their tax systems has become a priority for a majority of EU member states. In Poland, closing loopholes in the tax system has undoubtedly become one of the pillars of the government policy in recent years. Increasing VAT and CIT gaps have made it mandatory to prevent such practices as tax evasion and international tax evasion. These two phenomena have also determined directions of government policies striving to seal the tax system and implement new relevant regulations.

TRANSFER PRICING

— New legal solutions concerning transfer pricing will be of crucial importance for the policy of closing the CIT loophole. They have an altogether 'different' face as all decisions in relation to transfer pricing will be made in a state-to-state relationship, not in the state-to-taxpayer relationship. Affiliated entities operating in the jurisdictions of two countries will be able only to accept or not the will of these countries concerning the way the income generated by such entities is shared between the countries. Lack of such acceptance may mean that an international capital group will bear additional burden of double taxation of the same income in both countries, which may not be eliminated if the countries involved do not wish so. In the years 2015–2016 there were 15 recommendations published for countries and international capital groups (hereinafter BEPS report – *Base Erosion Profit Shifting*), 4 of which concerned transfer pricing. In 2015 Poland pioneered in implementing these solutions. The following solutions were adopted: reporting between countries, transparency requirements, instruments for the analysis of risks involved in applying transfer prices, a complete package of transfer price documents. There are also other vital recommendations published by OECD to be implemented at a later moment. However, since 2015 in Poland there have not been implemented any of the further solutions provided for by the BEPS report. Quite to the contrary, changes introduced after 2015 in the area of transfer pricing seem to indicate Poland's retreat from BEPS achievements. Some controversial changes in regulation make the current transfer pricing policy of the government rather unclear. Poland does not consolidate and adjust legal instruments to international standards which would allow retaining the existing tax base and does not invest in the development of highly specialised human resources in tax administration structures. The implemented and proposed legal solutions are very close to instruments used in Ecuador, Singapore and Mexico. An illustration of such practices is provided by the imposition of limits on deducting intangible service costs and licence fees from income tax, effective as of the beginning 2018. Lack of suitable legal regulation or expert support for tax administration in Poland while preparing valuations of complicated transactions makes Poland's position in international disputes feeble. It should be expected that Poland will be losing in such disputes with countries which are better equipped for the situation. This way, Poland will have to agree to diminish its tax base in favour of other countries.

LIMITED JOINT-STOCK PARTNERSHIP

Actions aimed at closing loopholes in the tax system are also connected to extending the CIT law to limited joint-stock partnerships as well as taxing income of their controlled foreign companies. Tax empowerment of these partnerships was aimed at preventing tax avoidance practices. As a result of the changes in the CIT law, a limited joint-stock partnership as an income tax payer started to be a legal person. Despite first intentions, this tax was all in all not extended onto limited partnerships. In such partnerships, financial investors as limited partners are liable to the amount of the commendam sum, which makes this legal form still attractive as compared against companies or limited joint-stock partnerships to which the CIT law applies. The above mentioned change should be recognised as a relevant step towards closing the CIT gap. Certainly this regulation remains in line with the trends observable in other EU member states. The data proves that after the above mentioned tax solution had been introduced, the popularity of establishing limited joint-stock partnerships for tax reasons started to decrease.

CONTROLLED FOREIGN CORPORATION/COMPANY – CFC

A very significant role in sealing the tax system is played by the income taxation structure of incomes of controlled foreign companies. Its purpose is to prevent tax evasion by enterprises with registered offices in a given country by assigning income to subsidiaries located in countries offering low tax rates. Regulations relating to CFC applying in most countries of the European Union have been also included in the Polish law on income tax from natural and legal persons since January 2015.

PROVISIONS ON UNDERCAPITALISATION

Another important step towards closing loopholes in the tax system based on CIT tax is the implementation as of 1 January 2018 of new solutions related to thin capitalisation. Former solutions have been replaced with the new ones, derived from the principles included in the ATA directive on the interest limitation rule.

TAX CAPITAL GROUPS – TCG

Accounting for a limited interest in TCG structure to date, it is unreasonable to expect that the implemented changes have improved the attractiveness of this solution and as a result have made the structure of TCG more appealing as a commonly recognised instrument of permitted tax avoidance. Despite the implemented changes, TCG solutions largely diverge from the standards applied in other European Union countries.

DOUBLE TAXATION PREVENTION CLAUSE

Introduction of the double taxation prevention clause constitutes an opportunity for effective eradication of international tax evasion in Poland. It will also allow drawing the line of acceptable tax avoidance, simultaneously boosting the autonomy of tax law in relation to civil law. Introduction of the advance tax ruling instrument is certainly a good idea, it will increase legal certainty and taxpayers' security. Unfortunately, the cost of such ruling is very high reaching 20 000 zł, which constrains the availability of this regulation and becomes a burden that can be born only by the biggest taxpayers. As far as some shortcomings of the clause are concerned, it should be stated that the concept of 'artificial' transactions on which the entire institution relies is not precise enough. Moreover, Polish lawmakers, against international recommendations, have not decided to prepare and publish any clear and comprehensive guidelines or instructions as to when the clause should be applied. As for now, the construction of the tax evasion prevention clause remains a theoretical remedy, which has not been used in practice yet.

Having studied the above mentioned regulations, it is hard to agree that the proposed remedies may be efficient in countering international tax evasion. Efficient state policy in this area requires systemic solutions which, on the one hand, may be effective in dealing with entities using aggressive tax avoidance, and on the other, will account for the interests of entrepreneurs striving to do business in a 'friendly' regulatory environment. Also, the number of changes made to the tax law regulating income taxation of legal persons is considerable which reveals lack of legal stability. Since the law on income tax from legal persons became effective until the end of 2017 there were 202 amendments. Such a large number of amendments evokes the feeling of uncertainty with entrepreneurs as to the future tax obligations.

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The problem of VAT non-compliance in Central and Eastern Europe countries

In a vast majority of Central and Eastern Europe states VAT collectibility has been below the EU average and VAT revenue as the main source of tax revenue largely unstable. Implementing tailored mechanisms, mandatory reporting, IT tools along with raising awareness has resulted in increased VAT collection, exemplified by the Visegrad Group.

The problem of irrecoverable VAT is of particular importance to the countries of Central and Eastern Europe. In a vast majority of Central and Eastern Europe states VAT collectibility has been below the EU average and VAT revenue as the main source of tax revenue was largely unstable. Loss of potential VAT revenue in CEE-11 countries in 2016 amounted to 24.6 bn euros and in 2015 accounted for 17.9% of total lost revenue in the European Union.

The largest potential revenue loss among the countries of the region was recorded in Poland, which results from a relatively extensive application of reduced rates. In 2015 due to the application of 5% and 8% rates Poland lost about 15.45% of potential revenue, whereas the loss of revenue due to applying a reduced rate of 10% on a much narrower catalogue of goods and services in Slovakia amounted to only 1.47%.

In countries with very similar economic structures and at a very similar level of economic development VAT collectibility varies considerably. Despite economic affinity and advanced harmonisation of regulation in the European Union, the variation in VAT gap among CEE-11 countries in 2016 amounted to almost 40 pp. This fact was, among others, owed to the discrepancies in the efficiency of institutions and level of tax regulation complexity. In the countries with higher costs of VAT law enforcement the gap accounted for a major portion of liabilities. The very structure of the rate system turned out not to be directly correlated with the VAT gap.

Intense efforts of implementing special mechanisms, reporting obligations, IT tools or raising clients' awareness, particularly visible in the Visegrad Group countries, brought about increased VAT collection. Although closing the gap is costly and not all of its components may be completely eliminated, the example set by countries such as Croatia, Estonia and Slovenia which manage to maintain collectibility at a high level and costs of law enforcement at a low level indicates there exists significant room for improvement of the system in other countries grappling with such problems, particularly in Romania.

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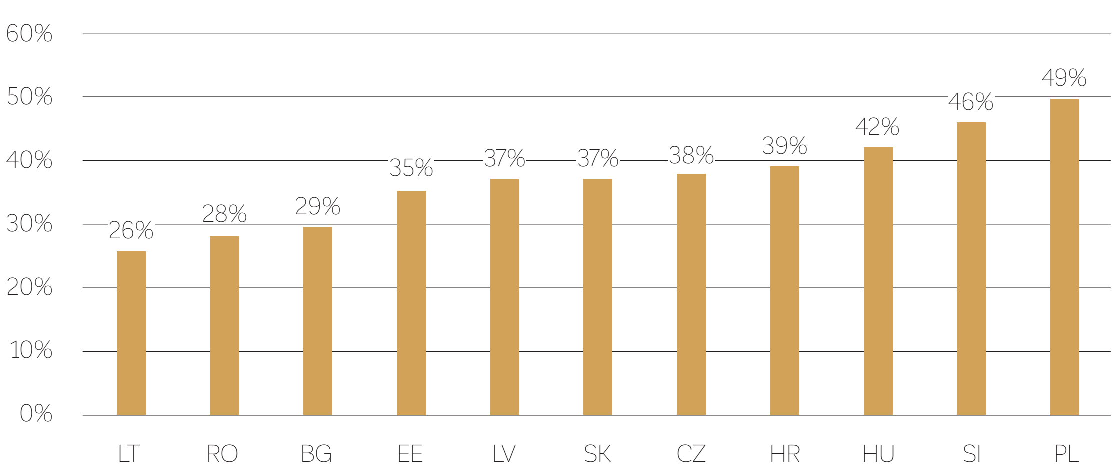
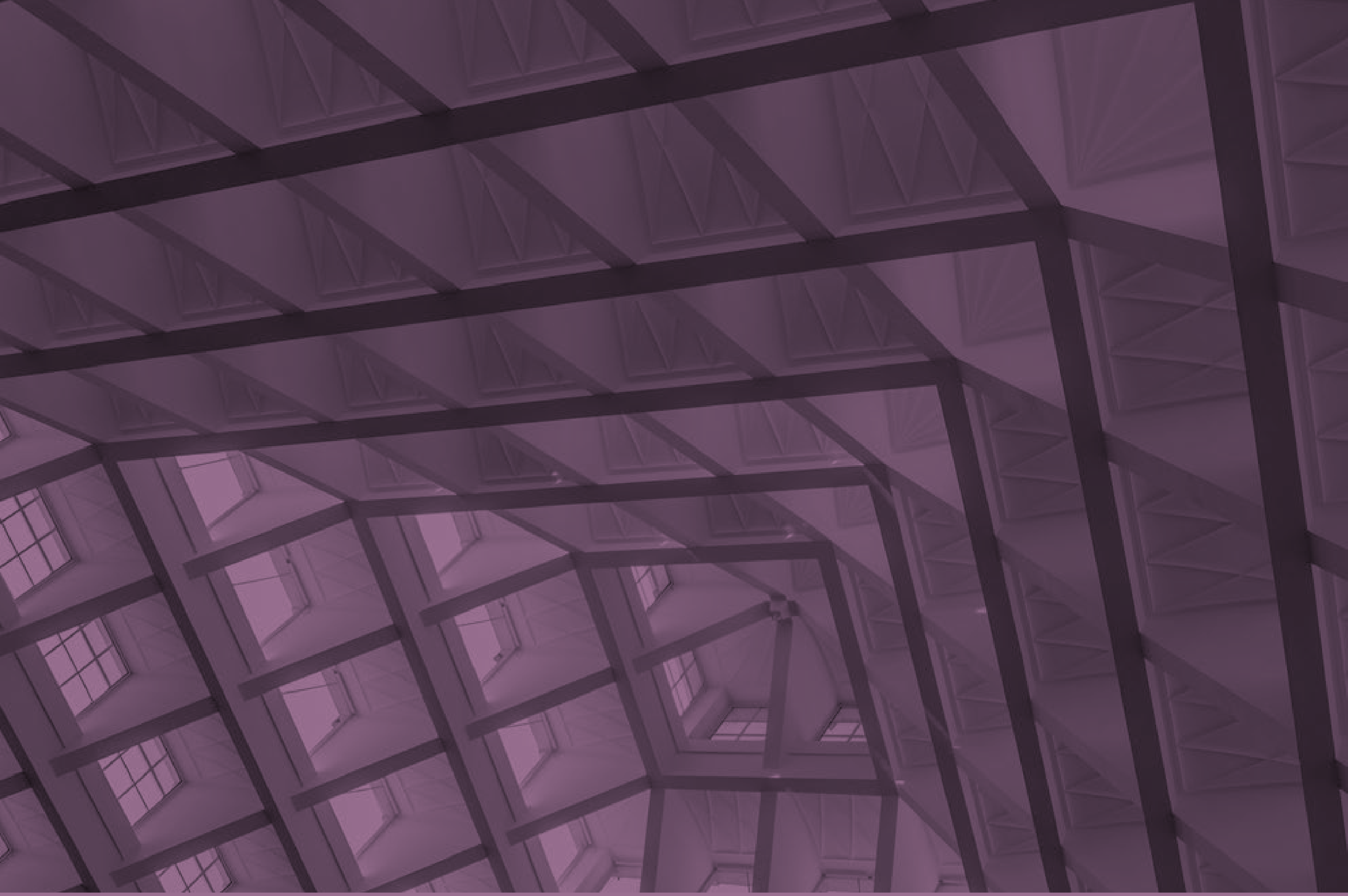
Value of Policy Gap ratio in CEE-11 countries (2016)



Source: SGH own study.



SOCIAL CHALLENGES

6

SOCIAL CHALLENGES FACING CENTRAL AND EASTERN EUROPE COUNTRIES

In this part of the report we analyse the social challenges facing countries of Central and Eastern Europe. We address the issues of inequality impact on economic growth, household indebtedness and housing capitalism model.

Housing capitalism model in Central and Eastern Europe countries

Almost all Central and Eastern Europe countries display one, particular model of housing capitalism which differs from any models applied in Western or Southern Europe. The model is characterised by a low level of flat commoditisation, e.g. people from CEE-11 countries treat their houses as family goods, not commodities or financial assets.
In Central and Eastern Europe the market of reversed mortgages or consumer loans secured on property is practically non-existent, and discrepancies between the social structure of income and assets inequality are very large.
One of the qualities of the housing capitalism in CEE countries is low supply of flats for rent. What is more, if they at all become available in a given location, they tend to be very expensive – the rent to income ratio is much higher in the region than in the old EU member states.

Almost all Central and Eastern Europe countries display one, particular model of housing capitalism which differs from any models applied in Western or Southern Europe. The model is characterised by a low level of flat commoditisation, e.g. people from CEE-11 countries treat their houses as family goods, not commodities or financial assets. As a result, they usually are not aware of their market value, rarely consider selling houses or collateralising them against a loan even if their financial situation is difficult. As a result, a great majority of housing property in Central and Eastern Europe countries has never been an object of any sale transaction on the free market, but was bought back from the state at non-market prices, obtained in the process of privatisation or handed down from generation to generation. Among all old EU member states the same model of housing capitalism may only be found in Italy.

Moreover, the model is distinctive in its three other features which, in such configuration, are not to be found anywhere in Europe apart from CEE countries. These are: low supply of social flats, underdeveloped rental market and high proportion of young adults living with parents. These characteristics along with low commoditisation of houses result in low efficiency of flat allocation among their users. Housing prices in relation to income are much higher in the region than in the old EU member states as the growing prices do not encourage people to sell or rent houses.

What is more, the market of reversed mortgages or consumer loans secured on property is practically non-existent, and discrepancies between the social structure of income and assets inequality are very large. As a result, in Central and Eastern Europe countries there is a considerable proportion of persons being owners or users of very expensive flats, but having very low income obtained chiefly from social or disability benefits or pensions. For the same reasons, the wealth effect as a result of surging property prices manifested in increased consumption and investments owed to higher value represented by the property is not observable in the region.

The system of housing allocation in CEE countries largely relies on family ties. However, it has a particular characteristic which sets the model apart from the one observable in the South of Europe (countries like Greece, Spain and Portugal) where the allocation of houses also happens through family ties. Citizens of Central and Eastern Europe have high housing claims towards the state when the family becomes unable to satisfy their needs. The consequence is two times higher supply of public housing and four times higher government expenditure on housing policy in the countries with non-commoditised housing capitalism model than in other EU member states in the South of Europe.

The last relevant feature of the housing capitalism in CEE countries is scarce supply of flats for rent. What is more, if they at all become available in a given location, they tend to be very expensive – the rent to income ratio is much higher in the region than in the old EU member states. The market of decent standard houses for rent at competitive pricing is practically non-existent, so is the rental market in small towns and rural areas. It results from low level of house commoditisation and insufficient protection for property owners.

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Indebtedness of households in Central and Eastern Europe countries as compared against other European countries

Households in Central and Eastern Europe countries have a generally low level of indebtedness.
Financial behaviour of households in Central and Eastern Europe states shows many similarities to the behaviour of lower-income families in other European countries (low saving propensity, taking out more consumer loans than mortgage loans).

Financial decisions of households in Central and Eastern Europe countries may be confronted against macroeconomic data representing the relationship of various types of loans and average citizen income in European countries.

Households in the countries of Central and Eastern Europe are generally characterised by a low level of debt. It is low not only in comparison to the record-holder (Denmark where traditionally mortgage loans are used to finance small business activity), but also to low-debt Germany and Italy.

There are differences among Central and Eastern Europe countries as to the extent and structure of debt. Relatively high indebtedness of households in Czechia, Slovenia and Estonia is due mostly to mortgage loans. Debt of households in Bulgaria, Romania and Hungary is not high and consists in majority of consumer loans. It indicates a less rational attitude to running up debt, most likely being the consequence of poverty. This type of loans which require quick repayment may easily result in clients falling into a 'debt spiral'. Poland is positioned between these two schemes of household debt.

The financial behaviour of households in Central and Eastern Europe countries has many features typical for lower-income families from other European countries (low saving propensity, taking out consumer loans than mortgage loans). We can also feel the impact of the social and economic change being part of the transformation to the market economy. At a macroeconomic level it is demonstrated in a high proportion of house ownership, however, at the microeconomic level it manifests itself in a deep stratification of younger households (particularly urban ones) and older ones, poor and living in rural areas. The former, using their financial potential and knowledge of budget management, make classic life cycle decisions, but the latter ones either lack the potential or relevant knowledge to protect their housing needs for the old age. It may result in a higher than in the countries of Western Europe risk of falling into excessive debt, especially facing risks of overtly flexible labour market (popularity of 'junk' job contracts).

Loans as a percentage of disposable household income

Country	All loans made to households	Consumer loans	Share of consumer loans in total value of loans
Austria	74.48%	9.01%	12.09%
Belgium	73.41%	10.01%	13.64%
Bulgaria	38.02%	17.83%	46.90%
Cyprus	192.85%	22.54%	11.69%
Czechia	57.38%	8.93%	15.56%
Germany	78.99%	9.27%	11.73%
Denmark	229.55%	11.53%	5.02%
Estonia	63.76%	5.61%	8.80%
Greece	75.51%	21.35%	28.28%
Spain	100.46%	9.88%	9.84%
Finland	99.07%	11.53%	11.64%
France	81.21%	10.60%	13.05%
Hungary	29.38%	12.24%	41.68%
Ireland	89.05%	12.21%	13.72%
Italy	57.28%	9.71%	16.95%
Lithuania	34.99%	2.93%	8.38%
Latvia	34.67%	3.18%	9.19%
The Netherlands	137.64%	5.20%	3.78%
Poland	49.98%	14.69%	29.38%
Portugal	92.07%	10.75%	11.68%
Romania	20.24%	9.35%	46.21%
Sweden	161.05%	8.56%	5.31%
Slovenia	38.12%	8.93%	23.42%
Slovakia	61.04%	11.47%	18.79%
Great Britain	123.99%	15.17%	12.24%

Source: SGH own study based on the European Credit Research Institute data.

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The impact of income inequality on economic growth – the role of perception and acceptance of income inequality

The more people believe one can be lifted out of poverty, the more important it becomes for the economic growth to invest in education.

The purpose of the study is to verify the hypothesis of significant impact of income inequality perception on economic growth. The study was run based on panel data for 73 countries in the years 1990–2014 using the Unweighted Least Square Solution with static individual effects.

Data analysis has not confirmed any statistically vital influence of income differentiation or any of the measures of income inequality perception on economic growth. Yet, the authors managed to formulate interesting conclusions concerning interactive variables:

1) the more people believe that one can be lifted out of poverty, the more important for economic growth schooling becomes, which in fact means investment in education;

2) the lower the acceptance of income inequality and the stronger the conviction that hard work is a success factor, the lower is the influence of the length of education on economic growth (this impact may even become negative);

3) the lower the acceptance of inequality, the heavier becomes the burden imposed on economic growth by the state's engagement in the economy.

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