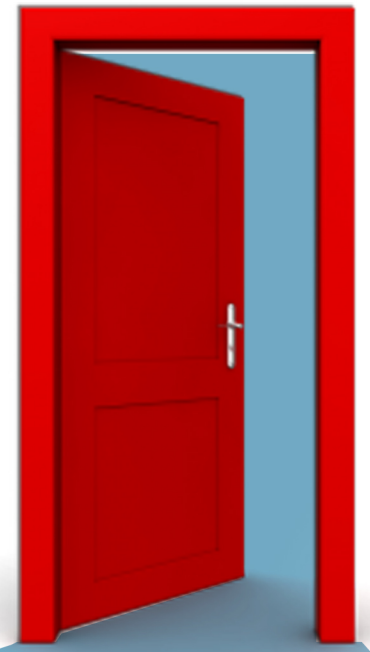
WHITE BOOK 2024

Croatia's competitiveness after completion of its European integration process: a new chapter



FOREIGN INVESTORS COUNCIL

FOREIGN INVESTORS COUNCIL CROATIA

CROATIA'S COMPETITIVENESS AFTER COMPLETION OF ITS EUROPEAN INTEGRATION PROCESS: A NEW CHAPTER

Zagreb, February 2024

Croatia's Competitiveness After Completion of its European Integration Process: A New Chapter

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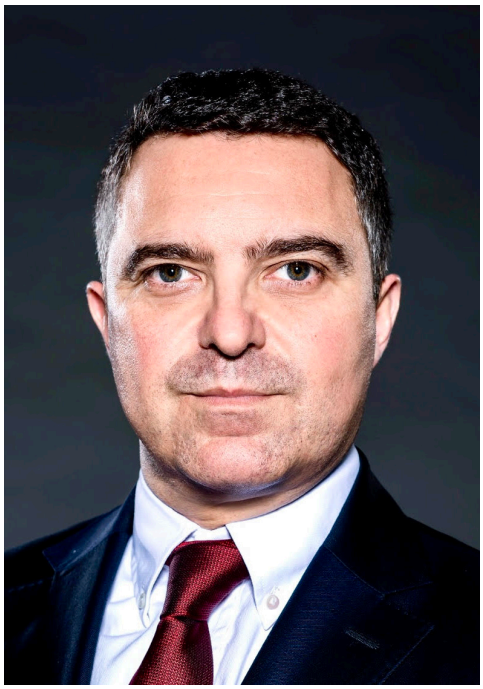


Another door to open

By joining the Eurozone and Schengen Area, Croatia has completed its European integration. And in a good moment, too: In the past three years, Croatia has recorded one of the highest rates of growth in the EU. In the post-pandemic period, Croatia started catching up with the countries of Central and Eastern Europe that joined the EU in the last enlargement wave in 2004.

European integration creates positive economic effects in two principal ways. First, EU grants enable public investment in digitalization, research & development and other areas, together with reforms, maintaining of financial stability, fiscal discipline, and prospects for further improvement of credit rating. Second, doing business in the EU single market stimulates growth of exports and foreign direct investment.

With time, European grants will decline in importance and private investment, innovation and exports will become more important. This is where foreign direct investment becomes crucial. The analysis in this year's edition of *White Book* demonstrates a strong contribution to growth – of exports in particular – made by foreign controlled enterprises.

But the relative size of this segment of enterprise sector in Croatia is smaller than in other small, open and more developed European countries, from Slovenia and Czechia to Denmark and Ireland. Croatia has not fully used the opportunity for development that opened up at the end of its European integration process. Given its geographical position, EU membership, very good infrastructure and a developed ICT sector, *Croatia can make fast progress if it attracts sufficient relevant foreign direct investment in the companies that create much higher value added per employee, introduce innovation and invest in research & development*.

The forthcoming OECD accession is a unique opportunity for opening a new chapter of economic development. Croatia needs policies and measures for improvement of business environment and attracting of large private investments. This will increase competitiveness and productivity. Based on our experience of doing business in Croatia and other countries, we are convinced that, in the near future, Croatia can become one of the most attractive investment destinations and reach 90 percent of the average per capita income of European Union.

For this to happen, two key developmental limitations should be eliminated as soon as possible. First, labor supply is constricted and education is not adapted to an economy that can generate high value added – high productivity and wages per employee. Second, substantial improvement of the quality of regulation and public administration efficiency is required for the administrative processes to achieve the standards of developed European countries through comprehensive digitalization.

This year's edition of *White Book* contains our recommendations for rapid elimination of developmental limitations. We believe this could also make a strong contribution to the demographic stabilization of Croatia. We hope that our analyses and recommendations will contribute to an open public debate on how to open yet another door and go through it.

Burak Baykan
President, Foreign Investors Council Croatia

Foreword by Head of European Investment Bank (EIB) Group Office Croatia

It is an honor to contribute this foreword to the latest edition of the Foreign Investors Council's White Book. I congratulate the FICC on the successful re-launch of this publication, as it represents a guide of great importance for decision makers as well as for investors navigating the Croatian investment environment. Moreover, the study comes at a critical moment for the Croatian economy in the fast-evolving context.

Croatia has successfully coped with the recent global succession of crises - from the Covid pandemic to the growing geopolitical challenges and rising energy costs. Thanks to economic support measures and the fast recovery of tourism, the Croatian economy recovered at pre-crisis activity levels already in 2021, much faster than most European countries. Despite a sharp rise in inflation, the country maintained solid growth and increased employment. A further impetus to the economy came from the accession to the Eurozone and the Schengen area in early 2023.

Firms in Croatia managed to keep a positive, although slowing, investment outlook through 2023. However, according to the latest EIB Investment Survey, energy costs emerge since 2022 as a key concern for firms, together with other structural barriers to investments such as the availability of skilled workers and uncertainty about the future. In comparison to the EU average, far fewer Croatian firms have already invested in measures to tackle the impact of climate change on their business, such as energy efficiency upgrades and protection from physical risks from extreme weather. However, their stated intention to invest more in these areas in the following years is encouraging, as it is in line with the EU average.

As the EU's climate bank, the EIB Group has been supporting Croatia in leveraging the opportunities offered by EU funds to attract investments – including from foreign investors – for projects in the areas of energy, climate action, and digitalisation. We are keen to support more productive investments in Croatia, especially those that are innovation-intensive.

Throughout the crises, the availability of European funds played the pivotal role in supporting the Government's priorities and implementing reforms and investments from the Recovery and Resilience Plan and other EU initiatives. Moving forward, Croatia will need to ramp up the use of financial instruments and to attract more private capital – including from foreign investors – to allow for the diversification of economic growth drivers and increase its competitiveness and resilience.

As the following chapters aptly outline, Croatia needs to address key bottlenecks to foreign investment, including skills and workforce shortages, business and labor regulation, and infrastructure gaps. There is unused potential that must be unlocked, such as increasing the size of the labor force by facilitating the participation of women and youth and accelerating smart investment. Overall, more ambitious efforts are needed to improve market functioning, simplify business regulation, strengthen legal frameworks, and enhance outcomes in education systems to boost investment and increase potential growth.

The country's commitment to further reforms, its EU membership, the expected accession to the OECD, and diverse investment opportunities make it an appealing choice for those seeking to capitalize on both its established sectors and emerging industries. This White Book highlights a path in this direction, providing a useful guidance for progress.

Slađana Ćosić
Head, European Investment Bank
(EIB) Group Office, Croatia

Introduction by Secretary General of Foreign Investors Council Croatia

A new chapter

It is our great privilege to present this latest edition of *White Book* after a three-year break, caused, among other things, by the pandemic. Ever since the founding of Foreign Investors Council Croatia (FICC) in 2012, *White Book* has been its trademark of a sort. With this seventh edition of its recommendations, FICC is continuing its constructive dialogue with the Government and other stakeholders in Croatia. This is our attempt to have a positive effect on the political and economic debates intended to ensure continued sustainable economic growth. FICC promotes joint positions of its members, regardless of investors' countries of origin, in order to offer specific suggestions that could help solve the challenges standing in the way of foreign investment.

Many foreign investors have recognized their interest in investing in Croatia. By doing business and achieving results in this country, they are making substantial contribution to Croatian economy. Analyses have shown that foreign controlled enterprises are more productive than their domestic counterparts, pay higher wages, invest more in R&D and, finally, account for more than 30 percent of the added value of relevant Croatian enterprises. But we should also be aware that Croatian economy is much less included in the global economic flows than the economies of other EU countries and many non-EU countries. If Croatia wants to maintain sustainable growth – and thus the growth of standard of its people – it should become even more open to foreign investment. There is more work to be done in this department, particularly in changing the mindset of parts of our society.

By its EU accession, and particularly by joining the Eurozone and Schengen area last year, Croatia achieved its strategic goals expected to facilitate its easier and faster economic development; however, there are still numerous global and internal threats that could decelerate the country's economic growth and possibly cause its lagging behind the comparable EU member states. On the one hand, there is plenty of room for accelerating the economic growth through strategic use of the funds provided by National Recovery and Resilience Plan (digitalization, education, energy supply, health care etc.). On the other hand, there is the question of growth in the future, when these funds will be available to a much lesser extent.

In recent years (including 2023), investors and entrepreneurs have faced various crises and are always forced to quickly adapt and seek solutions to the challenges posed by the pandemic, inflation, energy-market crisis, utility costs, geopolitical context, supply-chain bottlenecks etc. In such conditions, it turned out that Croatia should strengthen its institutional framework so that the existing investors could continue to make – and even increase – investment in the country. Also, the local market should be made more appealing to attract new investors to other industries, not just tourism and services. This would ensure uniform regional growth in Croatia and encourage productive investment that can ensure sustainable economic growth throughout Croatia in a long run.

In this spirit, we are looking forward to further strengthening of the dialogue with all competent institutions in order to achieve the common goal – Croatia as a competitive country and an attractive investment destination.

Tomislav Šlat
Secretary General, Foreign Investors Council Croatia

Abstract

In the past years, Croatia has recorded relatively high economic growth rates. Its labor productivity growth has neared the one of Central and Eastern European countries.

After the country's EU accession, its real convergence was effected not only by EU funds, but also by the growth of export of goods and services. The share of foreign controlled enterprises also increased. The growth of revenue, productivity, exports and wages in such enterprises is substantially above the average of the overall enterprise sector, resulting in their significant contribution to the total productivity growth. This is why the continued internationalization of Croatian enterprises is crucial for the country's long-term development by means of joint effects of foreign direct investment and exports in the enterprises and sectors that generate high added value.

The level of development of almost three-quarters of the European average, achieved so far, is not enough for demographic stabilization and launching of a bigger wave of returns of Croatia's emigrants. Additional progress should be made towards reaching 90 percent of the average socioeconomic development of the EU. This can be achieved through more active attraction of private foreign direct investment in the businesses where there is a high concentration of innovation, research & development, and orientation to exports. In order to open a new chapter of development after the European integration process has been completed, Croatia should be recognized globally as one of the most attractive investment destinations.

Based on its members' experience in doing business in a number of European countries, Foreign Investors Council Croatia has identified two crucial mid-term barriers to a faster economic growth in Croatia. First, shortage of workforce and the need for better functioning of the labor market and better education. Second, the need for improving the efficiency of public administration and expanding the process of digitalization while ensuring more active targeted attraction of foreign direct investment by large international corporations doing business in high added-value industries. Croatia's forthcoming OECD accession offers an opportunity for the implementation of such economic policies.

In its forty-three recommendations, this year's edition of White Book offers specific suggestions for rapid elimination of crucial developmental limitations. While very specific, these recommendations have not been devised as the ultimate, only possible solutions based on the "take it or leave it" principle. Their goal is to encourage a public debate on optimal and efficient policy measures.

The labor market and education chapter offers suggestions for the measures required for accelerating young people's transition from the world of education to the world of work as well as for a longer presence of ever better educated workers – women in particular – in the world of work before retirement. The chapter describes incentives for attracting experts to newly-opened highly-paid jobs and dwells on possible incentives for the return of Croatian emigrants to attractive jobs in Croatia.

The arrival of immigrant workers from faraway countries and cultures is a recent phenomenon that calls for a coordinated approach to their work-related and cultural integration in Croatian society modeled on the positive examples from developed countries in order to avoid – also well-known – negative examples from the most developed parts of the world. The restructuring of state-owned enterprises in accordance with OECD recommendations could also potentially increase the quality of workers' distribution across the economy based on the productivity increase criterion.

The education segment describes tax incentives and other measures that, in coordination with the government and academic institutions, could help surmount the high barriers between educational outcomes and skills on the one hand and the labor market's needs on the other. This would enable workers – the younger ones in particular – to find better paid and productive jobs sooner. Croatia urgently needs a program for promotion of higher education.

The chapter on higher efficiency of public administration, digitalization and active attraction of investment offers recommendations for a more extensive introduction of ultrafast Internet network and incentives for private companies to invest in digitalization and research & development. Importantly, these recommendations also suggest more ambitious projects of better regulation for innovation and growth, the use of new digital technologies, and better national and regional coordination of the activities required for attracting and supporting relevant targeted investment.

Croatia – basic information

Population (2023): 3,862,325
% of EU population (2023): 0.85%
Area: 56,594 km^2
Capital: Zagreb, pop. (2021): 769,944
Other major cities (2021): Split (161,312), Rijeka (108,622), Osijek (96,848)

GDP (2022): € 67,993 mil.
GDP per capita (2022): € 17,400
GDP per capita PPP (% of EU-27 average (2022): 73.0%
Inflation (12/2023): 4.5%
Unemployment rate (9/2023): 6.8%
Employment rate (6/2023): 71.4%
Average monthly net wage (10/2023): € 1,178
Average monthly gross wage (10/2023): € 1,630[1]
Share of highly educated in population 25-64 (2022): 25.4%
Share of highly educated in population 30-34 (2022): 34.2%
Fiscal balance / GDP (2022): 0.1%
Public debt / GDP (2022): 68.2%
Cumulative FDI / GDP 1995–2022 (UNCTAD): 88%
Average annual FDI / GDP (UNCTAD, 2018–2022): 1.7%
Main sectors of incoming FDI: finance, telecommunication, trade, real property, industry
Share of ICT sector in GDP: 6.0%
Export of goods and services / GDP (in constant 2015 prices): 59%
Balance of payments current account / GDP (2022):-1.6%
Currency: € (since 1 January 2023; formerly: HRK)
Credit rating: BBB+, positive outlook
Registered banks: 21, of which 11 members of international groups
Banking system capital ratio (30 June 2023): 24.8%
Stock exchange index: CROBEX
7 international airports = 1.3 / 10,000 km^2: sixth in the EU
1,316 km of highways = 236 km / 10,000 km^2: third in the EU
EU membership: since 2013
Candidate for OECD accession

[1] *In Croatia, compulsory health insurance contribution is charged on gross salary at the rate of 16.5%.*

Introduction: A new chapter of development

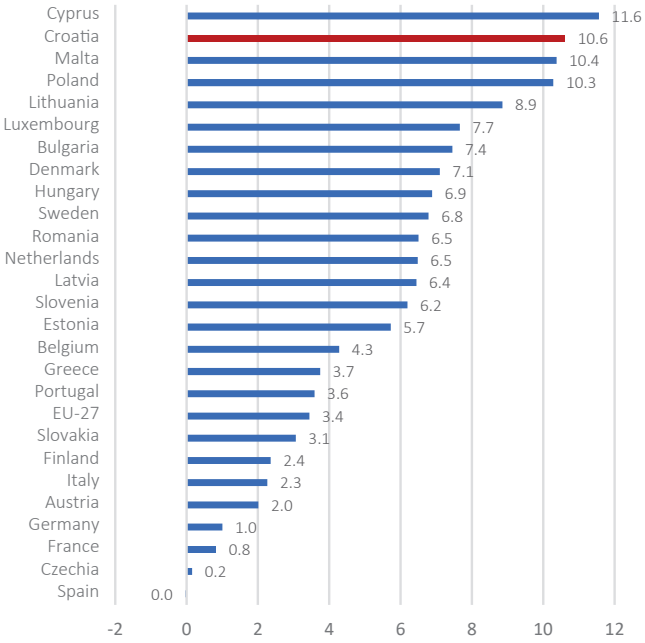
By joining the Eurozone and Schengen Area in 2023 (after its NATO and EU accession in 2009 and 2013, respectively), Croatia has fulfilled its strategic political goals. Accession to yet another exclusive international club remains: OECD.

Today, at the very end of its far-from-easy European integration process, Croatia has started collecting the dividends of this integration. **Its economic growth rate in the challenging pandemic period 2019–2022 was one of the highest in European Union** (Figure 1). The unemployment rate is approaching the EU-27 average, ranging from 6 to 7 percent.

Croatia's ranking among top European countries in terms of economic growth is a big change compared to the years when it lagged behind the Central and Eastern European countries it always compares with (CEE-10: new EU member states from the Baltic to Black Sea). Unfortunately, the preceding period of Great Recession 2009–2014 was marked by a large wave of emigration. This, together with the natural trend of birthrate drop and ageing of the population, caused a permanent loss of population. In the past three years, after having recovered only slightly between 2015 and 2019, the real GDP per capita has shown a **possibility of catching up with the comparable group of Central European countries** (CEE-10, Figure 2).

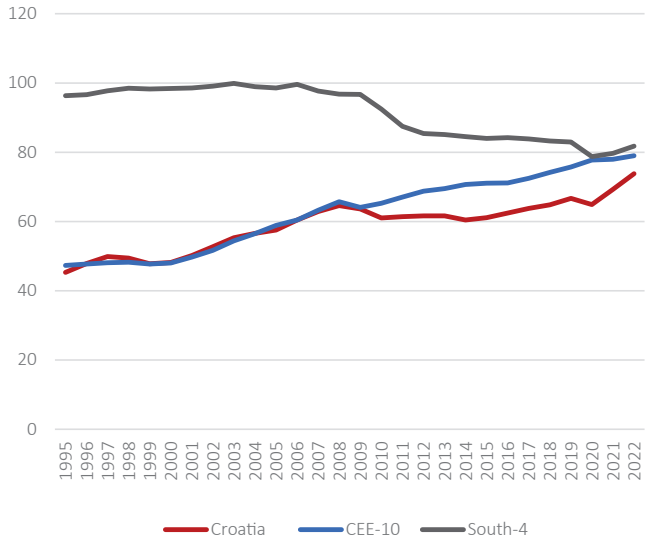
However, there is no guarantee that the recovery and catching up will last long enough for Croatia to change substantially its position in the economic map of Europe. Figure 2 contains the black line of warning – the South-4 group (Portugal, Spain, Italy and Greece) average that had reached the level of the EU-27 average in 2009, before the Great Recession (the value 100 in Figure 2), but was then followed by a lengthy period of relative lagging behind. Demographic stagnation, lack of competitiveness and weak institutions showed that **neither EU funds nor the achieved European average of development are a guarantee of a long-lasting economic turning point**. It is an important message for Croatia, which is also undergoing a difficult demographic transition and has weak institutions, while having to keep reaching the EU average at the same time. It is also facing workforce shortage that poses new limitations. Croatia is doing relatively well in terms of political stability and security, which is very important in the fragmented world of today. What raises concerns, however, is its lagging behind in corruption control, quality of regulation and efficiency of administration. The progress in these areas is the central point of the 2024 edition of *White Book*.

Figure 1 Real GDP cumulative growth 2022 / 2019 in %



Note: without Ireland due to specific features of R&D treatment in national accounts
Source: Eurostat

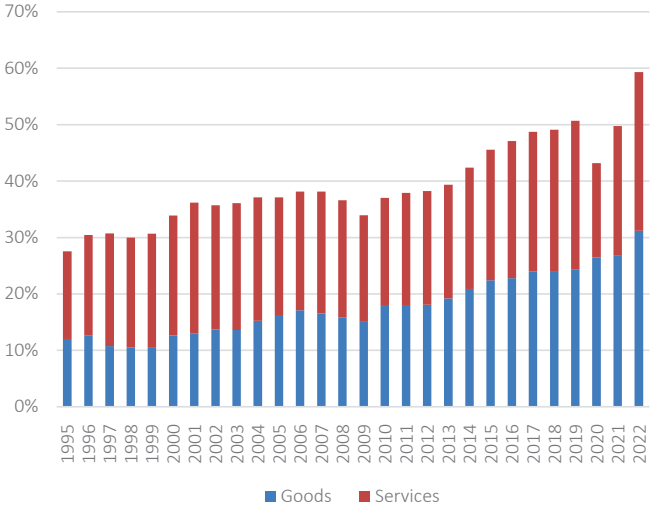
Figure 2 GDP per capita at purchasing power standard in % of EU average 1995-2022



Source: Eurostat

In the past few years, Croatia has shown a potential for achieving a substantial economic growth in the EU single market by improving its institutional framework, labor market and openness to foreign investment. The export of goods and services increased from 39 percent of GDP in 2013 to 49 percent in 2018 and 59 percent in 2022. And it was not just export of services (tourism) that was increased. A relevant growth was also recorded in the export of goods (Figure 3). The fact that as many as two unicorns of global relevance (Infobip and Rimac) emerged in the segment of R&D and new technologies, together with many others, shows new possibilities in the dynamic sector of new technologies.

Figure 3 Real export of goods and services / Real GDP 1995-2022

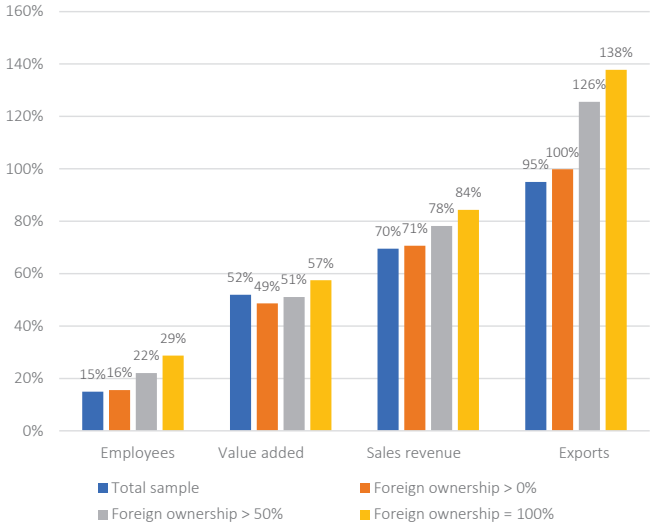


Source: CBS, own calculation

At two occasions in the past 10 years, the growth of exports was a key factor of Croatia's recovery from the recession: at the end of Great Recession in 2014–2015 and at the end of the pandemic-related recession in 2020. The real GDP per capita at purchasing power parity grew from 60.4 percent of the EU-27 average in 2014 to 73 percent in 2022 (Figure 2). Although it had lingered at the bottom of the European list for a long time in terms of this indicator, by 2022 Croatia *managed to pass Greece, Bulgaria, Slovakia and Latvia and come closer to Romania, Portugal and Poland.*

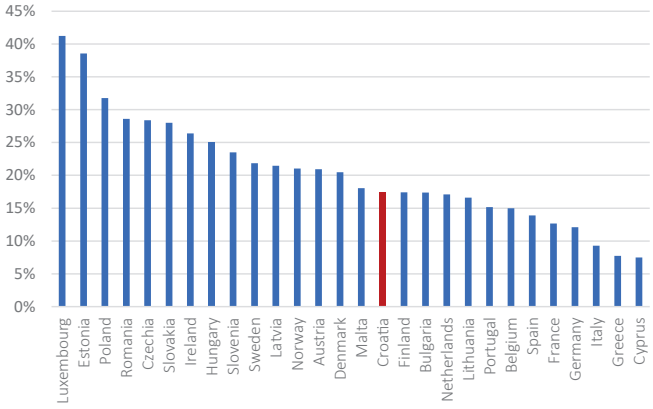
This was not just due to a better use of EU funds. **A positive change began deep in the country's economic structure: the share of foreign controlled enterprises in total employment, value added and, primarily, exports, started to grow** (Figure 4). The share of employees in foreign controlled enterprises reached approx. 20 percent (Figure 5). In the group of relevant Croatian enterprises, the ones with foreign ownership contribute more to the growth. In this group, enterprises with 100% foreign ownership made the biggest positive contribution when it comes to the growth of sales in foreign markets.

Figure 4 Four-year cumulative growth of relevant enterprises 2022/2018*



**Large enterprises = annual revenue > €1 million in 2022 (N=12,716)*
Source: FINA GFI, own calculation

Figure 5 Share of employment in foreign controlled enterprises in 2019



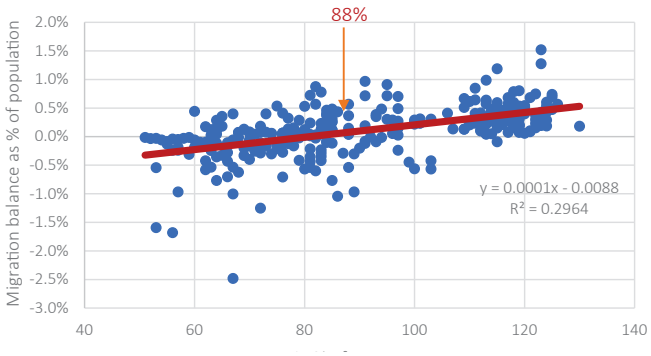
Source: Eurostat

The room for the impact of foreign investment on export and growth has not been used sufficiently in Croatia. This is obvious when compared to other European countries: almost all **small, open and developed European economies have significant shares of foreign controlled enterprises** (Figure 5). In terms of share of employees in foreign controlled enterprises, Croatia is lagging behind the comparable countries (Estonia, Latvia, Poland, Romania, Czechia, Slovakia, Hungary and Slovenia) as well as developed EU countries (Ireland, Sweden, Norway,

Austria and Denmark). These countries show that the high share of foreign investment is not limited to cost advantages on lower levels of development. Efficient policies, good regulations and institutions, education, entrepreneurial freedom and energy can turn every country into an investment destination attractive for international companies that generate higher added value and pay higher wages to their employees.

Higher real wages are the ultimate goal of economic development. Reaching 90 percent of the EU-27 average (as compared to current 73 percent) has been identified as a goal for a reason. Figure 6 shows a positive relationship between actual individual consumption (AIC), which includes the real value of the consumption of both private and public goods, and net migration balances for the EU member states from 2009 to 2021. The threshold of actual individual consumption, at which the life in a country becomes so appealing that it substantially increases the probability of a positive migration balance every year, is set just below 90 percent of the European average. **Retaining the population, returning the emigrants, and demographic stabilization become possible if the living standards reach 90 percent of the EU average**. Reaching this level of development should be identified as a **new strategic national mid-term goal**. This goal can only be achieved if **Croatia becomes one of 25 most attractive investment locations in the world** in a five-year period. Efforts on achieving this goal **could attract substantial (by amounts and quality) foreign investment in the enterprises that generate high added value per employee and pay higher wages**. *Capital should come to the people, so that the people would not leave for the countries where companies with more capital are doing business.*

Figure 6 Actual individual consumption (AIC) and migration balance for EU member states 2009-2021



Source: Eurostat, own calculation

doing business that can be eliminated by a targeted combination of measures in two areas: (1) labor market and education, and (2) increasing the public administration efficiency, with a particular emphasis on digitalization of administrative processes and attraction of relevant foreign investment in industries with higher added value. Reforms in this direction, perception of their implementation, and the moment of solid economic growth can accelerate positive changes. **The OECD accession is an ideal framework and incentive** for this purpose because OECD offers access to practices of structural economic policies which are the best for business environment reforms and for attracting investments in the sectors and companies that generate higher added value.[1]

Goal:
Achieving demographic stabilization by retaining, returning and attracting people

First objective:
Reaching 90% of average real income per capita of European Union

Second objective:
Croatia among top 25 business and investment destinations in the world by the end of decade

This *White Book* shows the way to this strategic goal in the first stage in the next four years. We are searching for an answer to the question of how to open a new chapter of development. Foreign investors in Croatia have identified **two main barriers for investment and** European Commission Autumn Forecast and the expected raising of Croatia's credit rating indicate that this is a good moment for making a new step forward in development. **The European Commission has forecasted a solid growth of Croatia by 2.5 percent in 2024 and 2.8 percent in 2025**. It is expected that the inflation rate will soon reach the targeted 2 percent and that the

[1] See, for example: OECD (2023): FDI Qualities Review Croatia.

European Commission Autumn Forecast 2023.

	2023.		2024.		2025.	
	HR	EU	HR	EU	HR	EU
BDP, growth	2.6%	0.6%	2.5%	1.3%	2.8%	1.7%
Inflation	8.1%	6.5%	2.4%	3.5%	1.6%	2.4%
Unemployment rate	6.5%	6.0%	6.2%	6.0%	5.8%	5.9%
Budget balance in % GDP-a	-0.1%	-3.2%	-1.8%	-2.8%	-1.8%	-2.7%
Public debt / BDP	60.8%	83.1%	58.8%	82.7%	58.2%	82.5%

unemployment rate will soon drop below the 6-percent threshold. **The forecasted growth rates are among the highest in the EU**. It is almost certain that the credit rating will be raised in such context.

Credit rating

	2023.		*2024.*		*2025.*	
	Rating	*Outlook*	*Rating*	*Outlook*	*Rating*	*Outlook*
S&P/Fitch	*BBB+*	*+*	*A-*	*0*	*A-*	*+*

**The data for 2024 – 2025 is not a forecast but an assessment of possibilities.*

The leading credit rating agencies have added positive outlook to the current BBB+ credit rating. In their reports they indicate the possibility of Croatia joining the A- category, currently occupied by Poland, Malta and Malesia – the countries perceived as attractive investment destinations. The agencies have pointed out that Croatia has a sustainable fiscal position, stable financial system and an economic growth that enables convergence towards the EU average. **In the context of setting a more ambitious developmental goal, there is no reason why the targeted rating would not be set higher than the relatively low A- level**. If Croatia manages to eliminate the barriers in the labor market and education, improve substantially its business and investment environments, and attract relevant investment in the companies that generate high added value, then it could reach the A rating (already reached by Spain), A+ rating (Slovakia), and even the AA- rating (reached only by Slovenia and Czechia in our part of Europe).

The three following chapters are dedicated to analytical results and recommendations. The first one presents in detail the foreign controlled enterprises' contribution to economic growth. The second chapter is about the labor market and education. The third one tells us about increasing the efficiency of public administration, digitalization, and attraction and stimulation of relevant investment in the industries and enterprises that generate higher value added per employee.

In order to maintain the clarity of the main text, only the main results are given further below, together with brief recommendations arising from them. A detailed description of the analytical results and recommendations can be found in the analytical background presented in *White Book's* second part.

EC expects Croatia to be one of the fastest-growing EU economies in 2024-2025, but there is room for larger contribution of exports to growth

Priority:

Elimination of labor market and education limitations in order to generate higher added value

Priority:

Efficient public administration, digitalization and attracting investment with higher added value

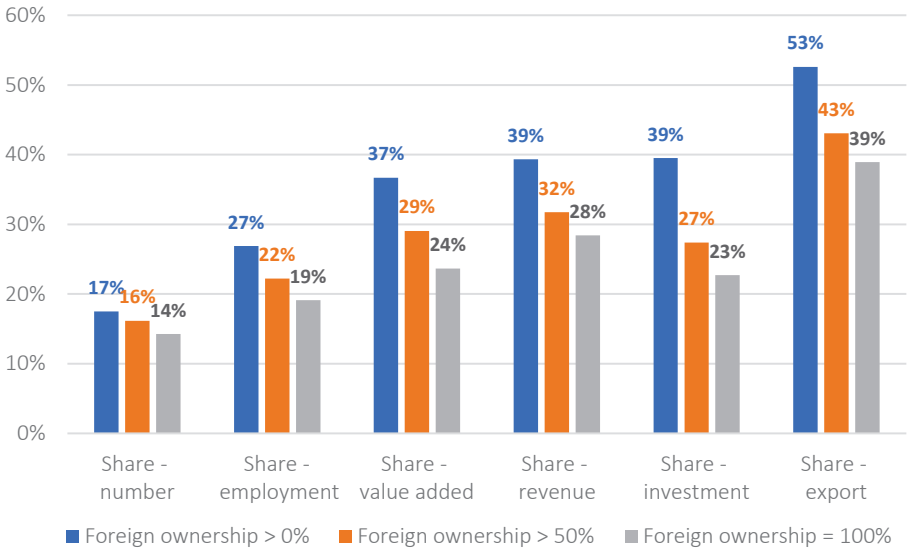
Foreign controlled enterprises' contribution to economic growth

The introduction shows the above-proportional contribution of foreign controlled enterprises to the growth of employment, total revenues, value added and, above all, sales revenues in international markets in the period from 2018 to 2022 (Figure 4). If only the large enterprises with sales revenues exceeding one million euros are observed (and there were 12,721 of them in 2022), foreign controlled enterprises were making 2 to 3 times higher shares in revenues, value added, investment and exports (foreign market sales) than in employment (Figure 7a). The share of investment in research & development was even more concentrated in these enterprises in comparison with the known concentration of private R&D expenditures in the small number of enterprises with foreign investors. Owing to generation of higher value added per employee, **foreign controlled enterprises were paying average net monthly wages 50 – 60 percent-higher** than the average in the large enterprise segment (Figure 7b).

If all relevant Croatian enterprises were productive and paying wages as a subsegment of the large enterprises with 100-percent foreign ownership (which included 1,812 enterprises with approx. 129,000 employees in 2022), the added value in the sector of relevant enterprises would be 31.3 percent higher and average net monthly wages would be closer to the EUR 1,600 threshold. A simplified statistical simulation shows that, in such case, Croatia would be more developed than Slovenia. **Even more important is the idea of an economic process in which more dynamical foreign controlled enterprises would additionally strengthen the competition for employees, thus having a stronger influence on wages and productivity in the entire enterprise sector**. Figure 8 explains why this has not happened to a larger extent in the previous years: Just before its EU accession in 2013, Croatia had an autarchic economy with a share of employees in foreign controlled enterprises smaller than the CEE-10 group. In the meantime, it managed to catch up with Bulgaria and Lithuania, but is still far behind other Central European countries; the enterprise sectors there are more internationalized that the one in Croatia.

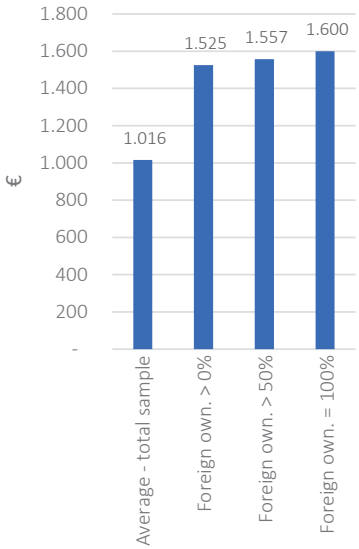
The same phenomenon can be shown through the prism of the relations between foreign direct investment (FDI) and exports (Figures 9 and 10). For decades, when it comes to the FDI/GDP ratio trends, Croatia lagged behind not just the comparable CEE-10 group, but also the group of smaller developed European countries that includes Austria, Denmark, Sweden and others. Change did not come immediately after the EU

Figure 7a Share of foreign controlled enterprises (per % of foreign ownership) in the segment of relevant enterprises with annual revenue > € 1M 2022.



Source: FINA, own calculation

Figure 7b Average net wage in relevant enterprises in 2022 in EUR

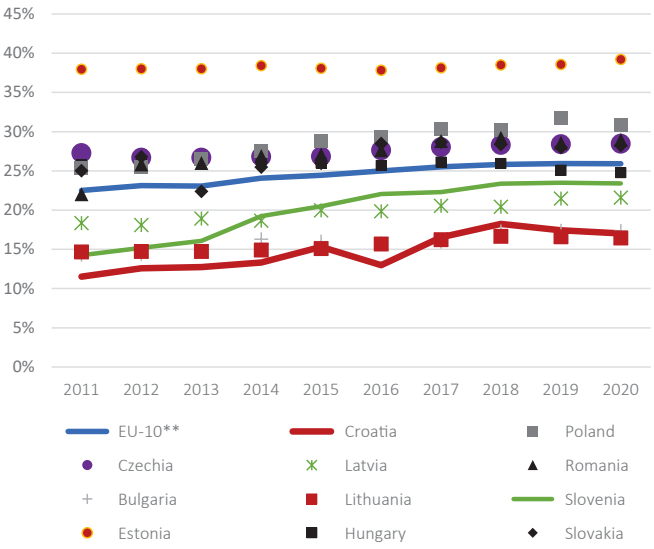


accession. The FDI/GDP ratio peaked way back in 2009 (Figure 9). Objective external limitations were not the only reason for a low FDI ratio after 2009. The economic strategies and policies that could increase this ratio failed to occur. The lagging behind the small developed EU member states – shown in Figure 9 – is yet another piece of evidence of a universal nature of the strategy of stimulating exports by attracting FDI in small and open economies. **The radical opening strategy that served well for e.g. Poland and Hungary serves even better for Ireland or Denmark, which are certainly not "low-cost" investment destinations**. Ireland and Singapore are a tandem that we dubbed "Island Tigers" in the figures in order to underline the connection between foreign direct investment and exports of goods and services. Exports as a percentage of GDP are the highest where the FDI/GDP ratios are the highest (Figure 10). Accordingly, the long-lasting shortage of relevant export-oriented foreign investment resulted in a structural problem: Republic of Croatia lacks export of at least 10–20 percent of GDP.

Keeping in mind the Central Europe's experience, it is often said that Croatia's problem lies in its small share of industry FDI (Figure 11). However, the examples of Austria, Denmark, Baltic States, Israel and Czechia indicate that, even with a high share of **FDI in the service sector, high ratios of exports of goods and services and GDP can be achieved, as well as a high real income per employee, provided that the service sector is export-oriented**. This often happens with ICT, transport and logistics, tourism, finance, and trade. Well-known are also the cases of export-oriented finance sectors (fintech companies from Baltic States and Scandinavia) as well as the cases of specializing in FDI in the most innovative R&D area (Israel). **Industry FDI must not be neglected, particularly if bound to innovation and R&D, because they generate the export of new products with an appertaining network of services**. This is particularly important in this new age where there is no ample supply of workforce anymore. The international companies with strong equity backing are expected to create additional pressure on the growth of wages by competing for better educated and better paid workers who participate in generation of a higher added value.

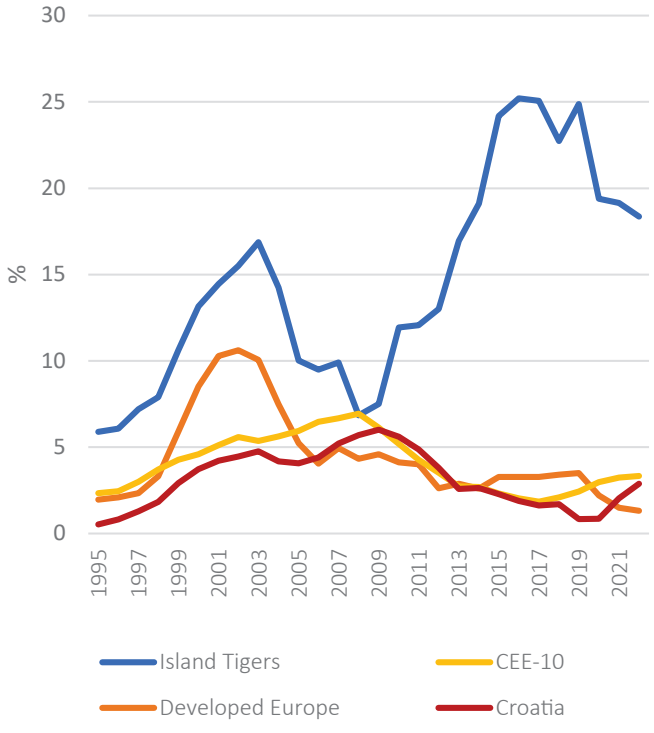
The comparison of sectoral economic structures in Figure 12 shows that the differences between sectoral structures are not big, except that the industry share in the CEE-5 group stands out due to the previous wave of industry FDI in large plants in the eastern parts of Central Europe. How-

Figure 8 Share of employment in all foreign controlled enterprises 2011-2020*



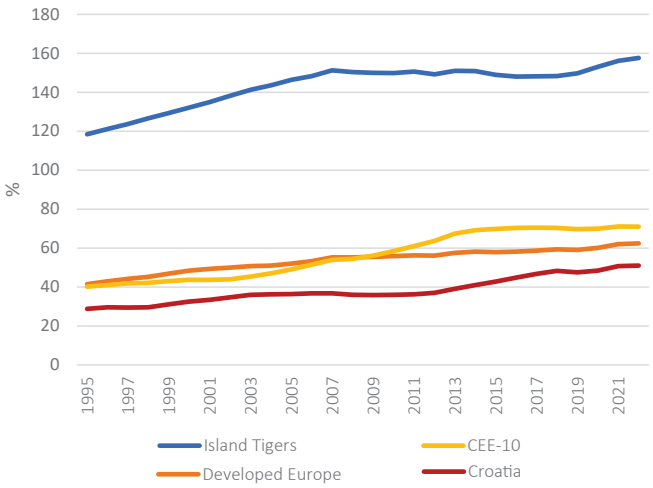
**Not in the relevant only, but in all.*
***Average for all countries displayed in the figure, except Croatia.*
Source: Eurostat

Figure 9 FDI / BDP in %, five-year moving averages 1995-2022



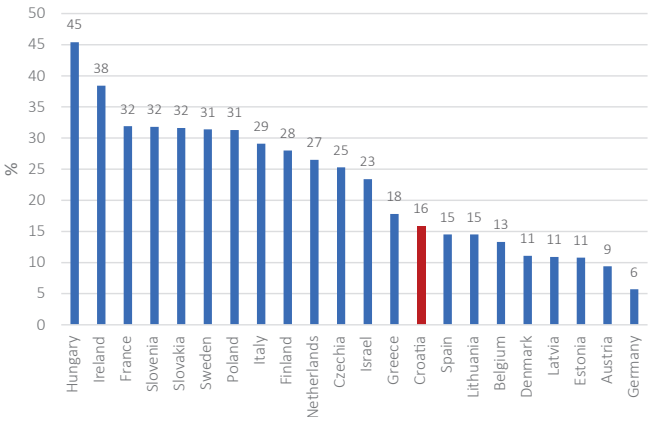
Source: UNCTAD, own calculation

Figure 10 Export of goods and services in % of GDP, five-year moving averages 1995-2022



Source: UNCTAD, own calculation

Figure 11 Cumulative share of industrial FDI in total FDI 1990 - 2022

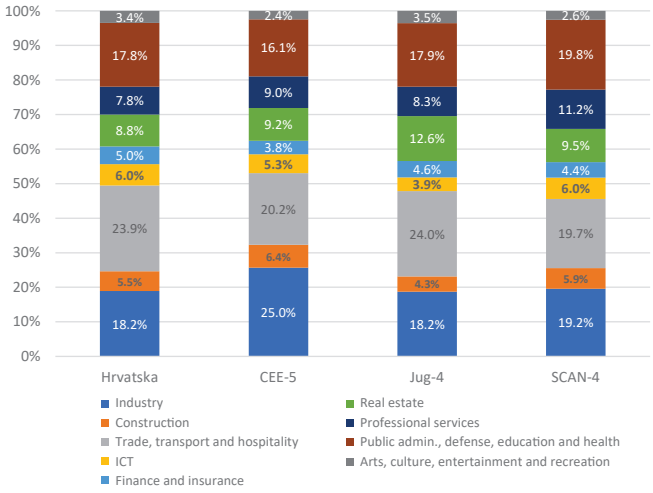


Source: OECD library

ever, **with the shortage of workforce and technological progress, the quality in terms of contributions to the added-value growth and extensive use of knowledge and innovation has become more important than the quantity that characterized the labor-intensive stage of investment**. The new quality can emerge in almost every industry. For instance, with its ICT sector accounting for 6 percent of its GDP, Croatia is more similar to the SCAN-4 group than to the CEE-5 group and is way ahead of the South-4 group of countries.

It is companies, not sectors, that are in the focus of the next stage of attracting investments. In its September 2023 report, the OECD also underlines companies, not sectors. The report assumes that the **key to the increase in Croatian economy's productivity lies in the**

Figure 12 Structure of gross value added in current prices in 2022



CEE-5 former transition Central Europe w/o Baltic, Romania and Bulgaria, SCAN-4 DK+FIN+SWE+ structurally similar NL
Source: Eurostat

reform of its business environment[2] because Croatia has a high share of low-productive companies and these companies have problems achieving growth. **Croatia's slow pace in achieving higher productivity can only partially be explained with the sectoral structure of the country's economy**. The key is in adopting new technologies by companies in all industries. The OECD report has identified **two key limitations in Croatia: (1) low level of integration in global value chains, and (2) lower intensity of foreign direct investment when compared to similar countries**. This finding is also presented in this edition of *White Book*.

The analysis in the first analytical chapter shows that current lack of economic dynamics in Croatia has to do with the low share of foreign controlled enterprises in the overall employment. **It was the 1-percentage-point growth of share of foreign controlled enterprises in employment that accelerated the economic growth of EU member states by approx. 0.3 percentage points on average in the past decade**. If the share in Croatia grew by approx. 5 percentage points faster after 2011 (at approx. 25 percent, like in Slovenia, Hungary and Ireland), instead of at approx. 20 percent, we would expect an approx. 1.5-percentage-point faster GDP growth per year. The cumulative growth of GDP in the five-year period preceding the pandemic would be faster by approx. 8 percentage points and the positive effect would also spill over to the post-pandemic

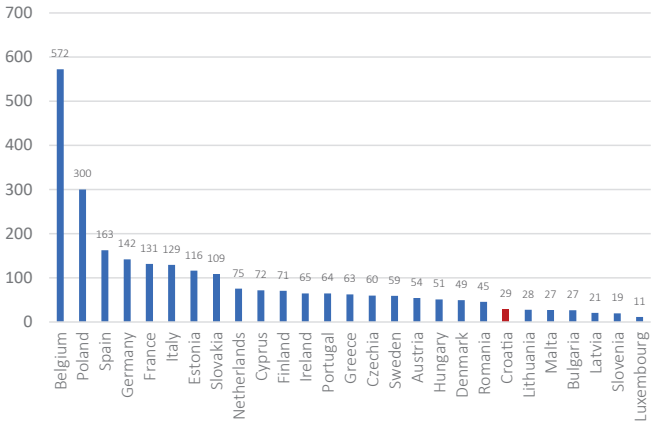
[2] OECD Economic Surveys Croatia, p. 61.

growth. In this case, less people would leave Croatia and the level of its real income per capita would have by now reached approx. 80 percent of the European average.

The best moment for planting the tree that we failed to plant more than 10 years ago is – now. By actively attracting crucial foreign direct investment in the enterprises that generate high value-added per employee, Croatia can substantially improve its economy. Since it is not realistic in the countries like Croatia to expect a foreign controlled enterprise to have an average of 50 employees (Figure 13), **raising the share of employees in foreign controlled enterprises to 25 percent would mean attracting relevant investment in around 1,000 enterprises. And since the enterprise size distribution is always uneven, the crucial part of Croatia's future investment story comes down to large investment in the enterprises that generate high added value and that have several hundred employees, or in those few with several thousand employees**. These figures could be reached in a few years' time if Croatia **advanced quickly to the status of one of 25 most desirable investment destinations in the world**. In such case, this change could extend to most of the sectors of Croatian economy.

For these goals to be achieved, two types of limitations must be eliminated. The first one is a necessity for

Figure 13 Average size of foreign controlled enterprises in terms of number of employees 2020



Source: Eurostat

achieving the above-described growth model: **improving the functioning of the labor market and education** in order to shift the human limitations of economic growth. Elimination of the second limitation is a sufficient condition: **rapid increase in the efficiency of public administration with an emphasis on digitalization of the administrative processes and attraction of relevant foreign investment** in the enterprises that generate a higher added value. This means elimination of regulatory and technological limitations for the growth.

Recommendation # 1: Attracting key investment more actively
Targeted attraction and stimulation of key investment in the enterprises with high value-added per employee that, with the amounts and effects on growth, dissemination of knowledge and extension of supply chains, bring the potential for transformation of the entire economic structure.

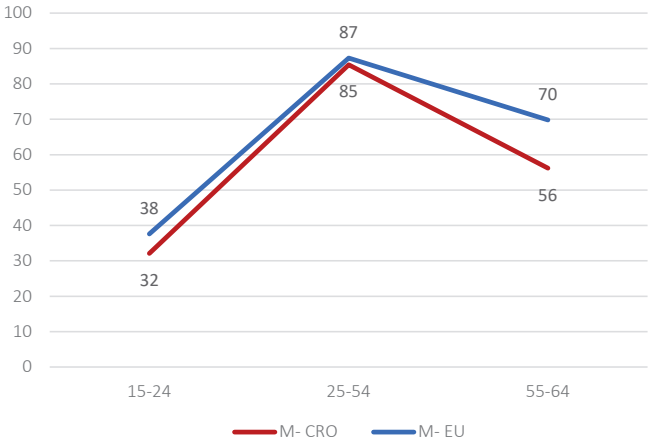
Improvement of labor market and education

Foreign investors' experience in Croatia does not correspond with the common traditional belief in the country that "Croats do not work a lot and spend their time drinking coffee, that they are rentiers and encumbered with socialist mentality". Like any other country, Croatia has its cultural and historical heritage and specific geographical conditions on which economic success are built. **Croats are excellent small entrepreneurs, founders and dedicated workers when working in teams permeated with productive collaboration, mutual respect and the sense of just rewards**.

Supporting this claim are the rather high employment rates in the primary working-age population (25–54 years of age). The employment rate in this age group for men is close to the European average; for women, it is even a bit above that average (Figures 14). But the problem of inactivity is present both in the younger and in the older populations: **young people move from the world of education to the world of work at a slow pace and the older population leaves the world of work (and retire or become passive) too quickly**.

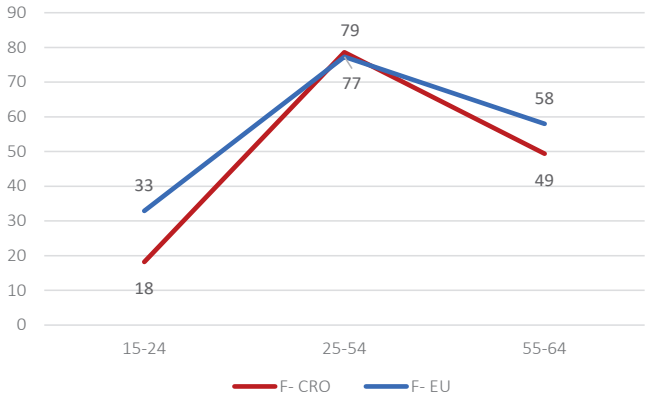
A quicker transition of young people from the world of education to the world of work and mutual interpenetration of these two worlds, like in developed countries (the dual education model) has become a necessity in the conditions of ageing population and emigration. Croatia is entering a period in which it will not be possible to replace the number of older workers leaving the labor market every year with the younger ones joining it unless changes are introduced. Neither the second most important set of measures – incentives for experienced workers to stay economically active as long as possible – will not solve the labor market problem if unassisted. This is why the remaining sources of workforce should also be activated: (1) returning some of the citizens who have emigrated over the past years; (2) hiring some of the unemployed as the 6-percent rate (approx. 100,000 unemployed) can be cut in half; (3) integrating the immigrant workers (not just those working in simple occupations, but – primarily – experts and foreign entrepreneurs-individual investors), and (4) ensuring better allocation of surplus manpower in state-owned enterprises. In this context, better education has a positive effect on all sources of additional labor. Bet-

Figure 14a Employment rates of men for three large age groups in %, Croatia and EU-27, Q2 2023



Source: Eurostat

Figure 14b. Female employment rates for three large age groups in %, Croatia and EU-27, Q2 2023



Source: Eurostat

Recommendation # 2: Mobilizing additional workforce empowered by better education:

- Quicker transition of young people from the world of education to the world of work, with interpenetration of these two worlds
- Longer presence of experienced workers in the labor market
- Return of emigrants and arrival of immigrant workers and entrepreneurs
- Retraining surplus workforce in state-owned enterprises

ter education provides the knowledge and skills required for production of higher value added per employee.

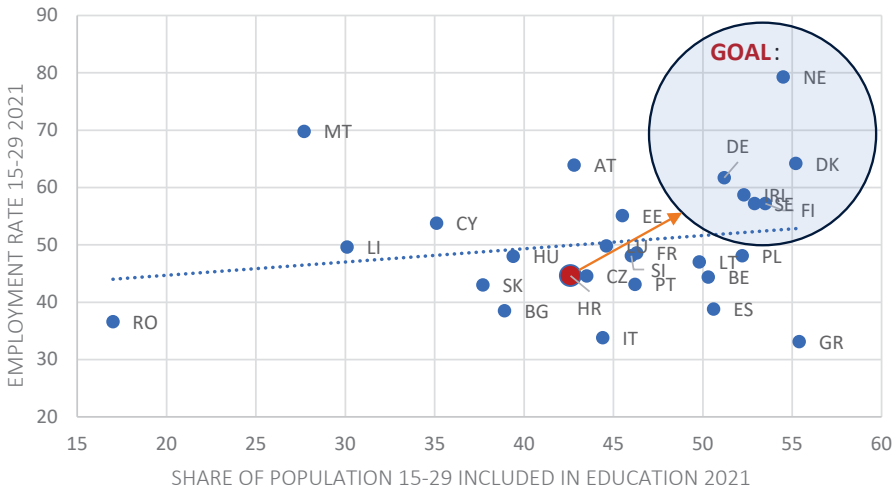
Earlier participation of young people in the world of work

Young people's education and work are not mutually exclusive: on average, the countries with higher employment rates for young people also have higher rates of their participation in education (Figure 15). The first mechanism connecting the worlds of work and education of young people is the quality of education: **better education ensures their faster and higher employability**. The second mechanism is the interpenetration of the worlds of work and education of young people by means of dual education – **simultaneous participation in educational and work processes**. Dual education is not limited to vocational education and in-service training. It also applies to higher education. Croatia should strive to: **(1) increase the employment rate for the young people aged 15–29 to approx. 60 percent (approx. 15 percentage points higher than current rate); and (2) increase the participation of young people in education to approx. 50 percent (approx. 10 percentage points higher than current rate)**. This would help Croatia position itself in the circle in the upper right corner of Figure 15.

Becoming familiar with the world of work is the most important part of young people's preparations for joining the labor market. It is also the best way of coordinating the educational outcomes and the needs of the labor market. Large enterprises with developed human resources sectors have the key role in it. They are actively involved in early attraction of talents and identifying the local educational institutions and programs capable of providing the labor supply required. **The labor market is the first factor to be analyzed and planned prior to large investment because large companies that produce a higher added value primarily invest in people**. They have their internal knowledge and experts for identifying suitable workers and developing their careers. By applying their knowledge of the labor market, they mobilize local intermediaries, establish contacts with educational institutions and send signals about changes and needs in the labor market. Strengthening of such joint efforts of large enterprises and the educational sector is a method once used by the developed countries of today when they were establishing the capillary connections between the world of education and the labor market. Education and labor silos have been long abandoned as dysfunctional and the incentives for the companies investing large funds in human resources management directly promote the demand for young workers and improve the quality of connections between labor and education.

Large enterprises that generate higher value added per employee ensure some **other benefits in the early years of young workers' careers when companies invest strong efforts in retaining the talents in whom substantial funds have been invested**. They invest a lot in in-service training of young workers and offer higher wages and other non-taxable receipts that help young people start a family. For example, they cover their employees' expenses for accommodation, kindergartens and preschool programs for their children. **The joint effects of increased public and private investments in**

Figure 15 Education and employment in age group 15-29



Source: Eurostat

Recommendation # 3: Increasing demand for young workers
Increasing the age limit for application of a 100% tax relief in the income tax system for workers of 25 to 30 years of age

Recommendation # 4: Incentives for company participation in the dual education model
Increasing the upper limits of non-taxable receipts for scholarships, reimbursements for the cost of living education, accommodation and similar costs of young potential employees who are still formally participating in the world of education.

Recommendation # 5: Increasing public investment and incentives for private investment in kindergartens and preschool education programs
These investments prepare the youngest generations for the world of education and stimulate young mothers to participate in the worlds of work and education

Recommendation # 6: Incentives for personal development of young employees and their families
Increasing the non-taxable receipts for the companies covering their employees' expenses for care, education, and cultural and sporting life of their children

launching kindergartens and preschool programs are particularly important for ensuring high-quality preparations of the youngest generations for the world of education and for stimulating young mothers to continue their education and participation in the labor market.

The four recommendations do not go beyond stimulation of labor demand and investment in retention and career development of young workers. The recommendations for high-quality education can be found at the end of this chapter, in the section specially dedicated to this subject.

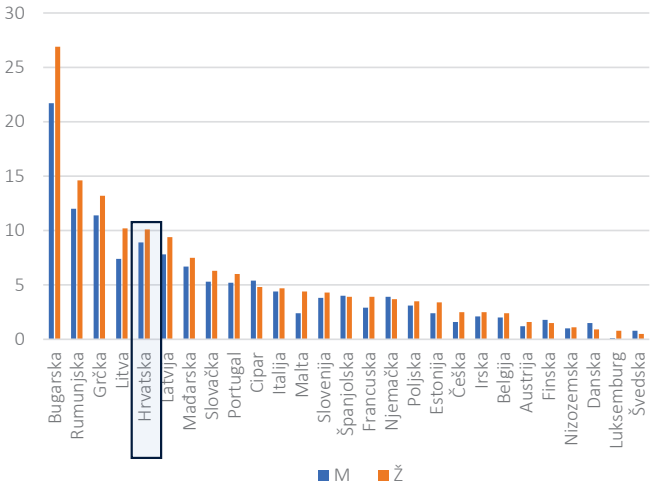
Longer presence of experienced workers in the world of work

The employment rate of Croatian 55+ women is falling behind the EU average by approx. 10 percentage points (Figure 14b). When compared to Germany and Scandinavia, where women in an advanced age are active for the longest period, this gap is 20 percentage points. As there are **almost 300,000 women aged between 55 and 64 living in Croatia (according to the 2021 census), a 10-percentage-points-higher rate in the 55+ population means 30,000 (almost 2 percent) more workers, resulting from longer economic activity of a larger number of women**. On average, if women would work longer, their incomes and pensions would be higher. This would **reduce the high rate of material deprivation of older persons, more pronounced for women** than for men (Figure 16).

The generational differences in the level of education are not the only reason for the large gap between the relatively high employment rate for women of the primary working age (25–54 years) and the low rate in the 55+ group. Another reason is the widespread role of woman-care provider in the family, assumed even by some educated working women above approx. 50 years of age. Then their children have their own children and the parents reach a very old age that requires additional care. Although the Croatian culture perceives the "grandma service" as something positive – which it certainly is, to an extent – there is also the other side of this coin: **Women of advanced age mostly assume the duties of upbringing and care in the family due to poor public and private offer of preschool services for children, medical services, and services of care, including the ultimate one – palliative care for the oldest family members**. This is why a recommendation for increasing public investment and private incentives for investment in medical care and other types of care

for the elderly – which particularly refers to senior citizens' homes and palliative care – should be added to the earlier mentioned increase of public investment and private incentives for investment in kindergartens and preschool programs. Such public and private investment can indirectly increase women's motivation for longer presence in the world of work.

Figure 16 Rate of severe material deprivation 2020 in % of total population 55+



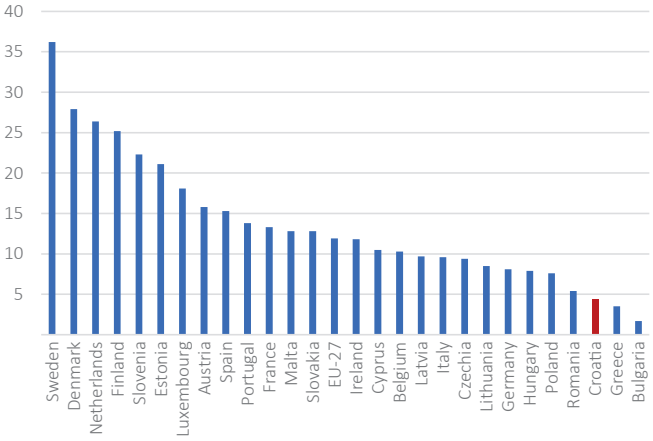
Source: Eurostat

The sharp decline of employment rate in men of 55+ years of age is of generational nature. It is a consequence of the Homeland War of 1991–1995. In that period, many younger men lost their working ability or met the requirements for obtaining veterans' pensions. Even regardless of this, Croatia has in place **relaxed conditions for early retirement, not in line with demographic trends, labor market situation and best practice of developed EU and OECD member states**. In Croatia, early retirement is possible five years before the age limit for full-age retirement (statutory age being 65 years for men and the same limit will be introduced for women in 2030, when the retirement age limit for women will be fully coordinated with that for men). A low penalty factor (annual reduction of pension by 2.4 percent for each year of early retirement) is currently in place. **Stricter conditions for early retirement should be introduced**. But such negative incentives will not yield results if not accompanied by positive, health- and education-related incentives for longer presence in the world of work.

There is a marked gap in Croatia when it comes to participation in lifelong learning (Figure 17). This is one of the main causes of older workers' early departure from the world of work. Continued acquisition of new knowledge and skills is necessary for competitive long-term participation in the world of work. It is not just the knowledge required for performing jobs in a modern economy, such as **learning digital skills**. It is also the knowledge needed for maintaining good health and vitality. This does not refer to life habits only, but also to the use of public and private supplemental health insurance that stimulates early detection of diseases and better and faster treatments. **Tax incentives for employers' payments for their employees' private health insurance should be increased.**

The knowledge, skills and habits acquired through lifelong education are primarily in the interest of individuals. The individuals' demand for lifelong education services and investment in one's good health and habits should be encouraged by raising awareness of one's best interests through the campaigns promoting lifelong learning and preparations for the advanced age. This is where **tax incentives in the income tax system can be of assistance because they can increase individuals' demand for lifelong education programs.** Particularly important is to **encourage acquiring of universal knowledge and skills such as foreign languages, digital skills, healthy diet and physical exercise in the advanced age**. Mastering foreign languages and digital skills can permanently increase workers' competitiveness in the labor market. The quality of such programs should be additionally strengthened by introducing rating of private schools and programs.

Figure 17 Share of adults included in lifetime learning programs in % of total number of respondents, 2022



Source: Eurostat

The promotion of lifelong education will create preconditions for a more widespread work during retirement. In Croatia, such work can be done only part-time. As Croatian old-age pensioners are relatively young (their average age being 72) and the average pensioners' length of service achieved under the Pension Insurance Act is

approx. 34 years, employment of younger healthy pensioners should be promoted. **At the moment, there are around 30,000 younger pensioners active in the labor market. This number could be multiplied in the future**.

According to the current model, in addition to an increased current income paid on top of their pensions (still received in full amount during employment), Croatian pensioners are entitled to subsequent accruals of their pensions. While working part-time in their retirement, they pay their pension insurance contributions and other taxes and health insurance contributions at the same rates as other workers. Such tax treatment is in place probably out of fear that younger workers might be squeezed out if pensioners had a more favorable tax treatment. It is also possible that a justification for payment of pension insurance contributions is found in the opinion that the additional stimulation in the form of subsequent accrual of pension actually matters. However, its effects on pensions are very low. As such, it does not represent a relevant motive when compared with an additional current income while younger pensioners still have a solid working ability. Since the structural shortage of workforce will probably continue to exist in a long run – reducing the younger workers' fear of being squeezed out – **employment of pensioners without payment of social insurance contributions and subsequent accruals of pension should be considered**. However, this measure could be an indirect incentive for early retirement and continuation of work without payment of contributions if it was to apply to pensioners in early retirement. For this reason, this measure should not be applicable to those below the age of 65.

The recommendations in this section are focused on a longer presence in the labor market; those referring primarily to the quality of education can be found in the final section of this chapter.[3]

[3] The recommendations referring to the tax system are not conceived as complete and final but rather as a discussion material. Detailed analyses and tests are required, so that the incentives could yield results while preserving integrity and credibility of the tax system, so that abuses or tax evasion could be avoided, and that simplicity of their use could be ensured.

Recommendation # 7: Public investment and incentives for private investment in health care and social welfare aiming at indirect effects on the increase in the employment rate of women in advanced age

Recommendation # 8: Introducing stricter requirements for early retirement

Recommendation # 9: Promoting lifelong education (I)
Extending tax incentives for the companies organizing educational programs for their employments not directly related to their jobs but to healthy life habits and maintaining vitality (diet, health, sports and recreation in advanced age etc.)

Recommendation # 10: Extending tax reliefs for employers' payments for public and private supplemental health insurance of their employees

Recommendation # 11: Promoting lifelong education (II)
Including individual tax reliefs in the annual income tax calculation for covering individuals' lifelong education expenses and introducing public rating of the institutions providing adult education services

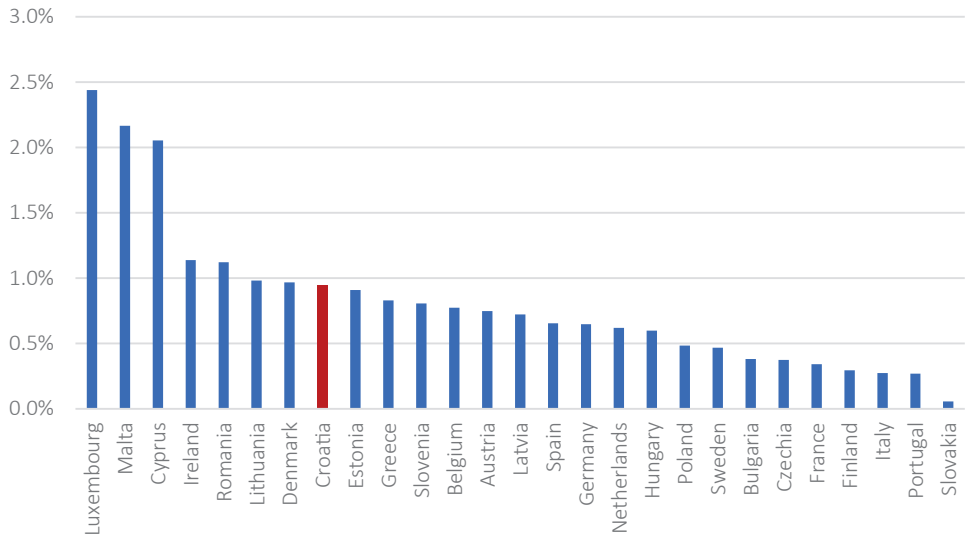
Recommendation # 12: Stimulating pensioners' employment
Abolishing social insurance contributions and subsequent pension accruals for pensioners who want to work after statutory pension age

Immigration

Following the massive wave of emigration from Croatia in the past ten years, with the number of mostly young people living the country roughly estimated at 300,000, **the economic growth and labor demand led to a positive migration balance in 2022 - for the first time in a number of years**. More than 50,000 people immigrated in Croatia in 2022 – some of them returnees (mostly from Germany and Austria), but most of them citizens of other countries. In addition to traditional immigrations from Bosnia-Herzegovina, Serbia, Northern Macedonia and Albania, that year saw higher numbers of immigrants from Ukraine, Russia, Asia, South America and also from the developed countries of Europe, North America and Oceania. This can be seen as evidence of **Croatia's substantial capacity to solve its workforce problems by means of diversified immigration**. However, the emigration is still ongoing. This means that Croatia is becoming similar to small and developed European countries like Ireland, Denmark, Belgium and Austria (Figure 18), where high emigration rates are accompanied by even higher immigration rates due to the high-level development, dynamic labor markets and cultures promoting open society. Besides, the beautiful Adriatic coast, preserved nature, and the real estate and cost of living still lower than in developed countries, have increased Croatia's attractiveness to people from developed countries. While the arrivals of older and wealthier Europeans owning real estate in Croatia, usually on the Adriatic coast, do not contribute to the labor supply, these immigrants nevertheless have positive effects on development because they increase the total spending and investment. **The best-known digital nomads active in new media industries and digital marketing today have immigrated to Croatia's Adriatic region from their developed countries and initiated a project for regulation of their residential and tax status, accepted by the Croatian government.** In the years to come, it is to be expected that **the administratively available residential status of serious non-EU entrepreneurs and investors who wants to stay in Croatia over a longer period of time and work from their Croatian seats will be regulated in the same way if their capital and influence on employment in the companies that generate high added value contributes to modernization of Croatian economy**.

We have pointed out in the introduction that reaching 90 percent of the average EU-27 real income per capita would increase the probability of demographic stabilization thanks to a permanently positive migration balance. Croatia should strengthen the capacity of its institutions for migration management so that its labor market and society in general could have maximum benefits from this process. **Ideally, Croatian citizens who have emigrated after the EU accession should be stimulated to return**. Objectively, however, it is not possible. The motives for emigrating and working abroad are complex. The motives for returning to Croatia are even more complex, because their starting reference point now is life and work in developed countries such as Germany, Austria, Switzerland or Ireland. These countries are not easy to compete with when it comes to offering life prospects. Return of Croatian emigrants should nevertheless be the main goal of Croatian policies. However, targeted and simple measures

Figure 18 Rate of emigration, 2018-2021



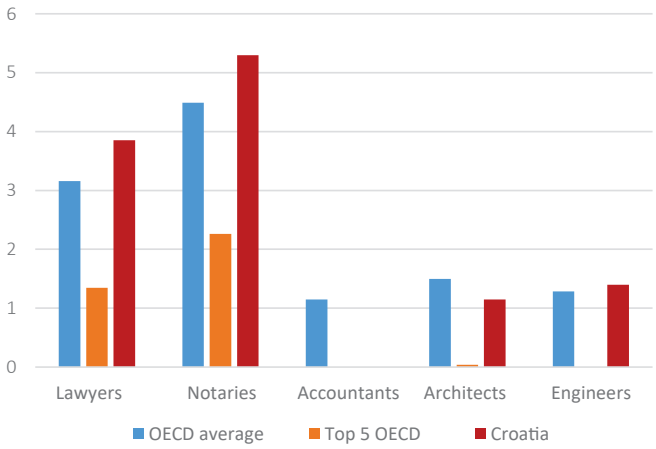
Source: Eurostat, own calculation

like subsidizing returns have not been successful. The best results will be achieved if Croatia, as soon as possible, becomes one of 25 most attractive investment destinations in the world and if it attracts substantial foreign investment in the industries and companies that generate high added value. **The returnees would fill up a large part of new jobs and receive for them wages competitive with those in the developed part of the EU compared to the total cost of living and standard of public services**. Anecdotal information indicates that this process has already begun. Just like the labor market channels provided by various intermediaries swiftly opened when the large emigration wave had begun, so shall emerging attractive jobs in Croatia quickly redirect the labor market channels towards return. *In order to prevent people from leaving for the countries where companies have more capital, Croatia should attract capital so that people could find jobs here: capital and labor go hand in hand.*

One should be realistic and admit that, given the high speed of the process described, some of the specialist jobs opening in high value-added industries will be filled neither with returnees nor with domestic experts. In modern segments of industry there are niches of innovation, R&D and specific knowledge for which Croatia lacks workers[4] and will continue to lack them in the near future; development and dissemination of knowledge are very time-consuming. This is why **hiring of highly-paid and productive foreign experts with new knowledge and skills should be stimulated**. The arrival of this group of people will result in three strong positive developmental effects: (1) by working in a company, they transfer and disseminate knowledge to other employees; (2) their contribution to Croatian budget is above-proportional because of their high wages; (3) some of them decide to stay in Croatia for a longer period of time, with part of them buying real estate and establishing a network of acquaintances and emotional relationships. They thus become informal business ambassadors. However, the **administrative processes of validation of foreign degrees and licenses in Croatia are still slow. Based on profession regulation indicators, Croatian regulations are more restrictive than the OECD's best practice**, except for accounting (Figure 19). This should urgently be changed, particularly when such degrees and licenses were issued by universities and organizations with international rating and reputation, located in the countries more developed than Croatia and with better educational systems.

Faced with a growing shortage of workforce in simpler professions, but also **having longtime experience in hiring foreign workers from Southeastern Europe for jobs in tourism and construction, Croatia quickly upgraded its immigrant-worker hiring system. More than 150,000 working permits were issued to these workers in 2023 (estimate)**. This is about 10 percent of the average annual number of employees. However, as foreign workers come and go, it is our estimate that their number in Croatia does not exceed 5–6 percent of the total number of employees, taking into account usual seasonal variations. Such a share is not exceptional in the European context.

Figure 19 Index of stringency of professional regulation



Source: OECD Product Market Regulation

Working permits are issued quickly and with no labor market tests in scarce occupations. Although the labor market is national, such occupations are determined on the county level. **It is recommended that scarce occupations be determined on the national level and that local labor markets be regulated through regional incentives for domestic workers**. It was observed that local offices process this task at different paces, as the hiring-related workload varies in different parts of the country and in different seasons. These regional differences should be eliminated by digitalization of administrative procedures for hiring foreign workers and by fast adjustment of the administrative capacities of regional offices, so that entrepreneurs could enjoy equal conditions for hiring foreign workers throughout the country. **The period in which permanent permits are issued to employers (and not to employees) should be shortened from 5 to 3 years**, after which time the permit would be issued to the employee who had proven that he is worthy of permanent employment and intends to reside in Croatia for a longer period.

[4] See higher education section at the end of the chapter.

The emergence of foreign workers from faraway countries and cultures raises some new social questions. Used only to the workers from geographically, culturally and linguistically close countries, Croatia is only starting to look for lasting answers. The linguistic barrier, occurring when foreign workers cannot speak English – which is widely and fluently spoken in Croatia – is but one of the barriers in the way of the culture of communication and tolerance of differences. The demand for such culture is mutual: it is not just about the local culture that needs to accept new differences; it is also about the culture of immigrant workers who must acquire the knowledge and skills required for immersion in the culture of the host country. The solution for this is **to improve institutional coordination in order to expedite the cultural integration of the workers**, like Austria and similar countries with century-long experience in this area. The companies that hire immigrant workers should contribute to their language skills and their cultural integration and tolerance. It is therefore recommended to strengthen the tax incentives for organizing workshops which are not directly related to their work, but which facilitate their social integration by teaching them local culture and language. The extension of tax incentives for education of the still-not-hired workers who are in the process of selection is explained in the next section because this measure is potentially relevant for the general increase of the labor market dynamics, not just for facilitating immigrant workers' learning.

Recommendation # 13: Stimulating employment of the returnees
Additional incentives for the companies that develop a program of targeted employment of returnees – for details, see the final chapter on attracting and stimulating investment

Recommendation # 14: Stimulating employment of foreign experts
Deregulation of professions modeled after best practice of OECD member states; faster validation of foreign degrees and professional licenses issued by foreign universities, chambers and regulators

Recommendation # 15: Attracting experienced entrepreneurs-investors, natural persons
Simple administrative procedures for obtaining residence permits for individuals investing capital in export-oriented high-value-added industries (in the amounts relevant for Croatian economy)

Recommendation # 16: Standardizing procedures for hiring foreign workers
Identifying scarce occupations on the national level and digitalizing administrative procedures while eliminating bottlenecks emerging seasonally in regional permit-issuing offices with heavy workload

Recommendation # 17: Shortening the period in which working permits for foreign workers are issued to their employers from 5 to 3 years

Recommendation # 18: Improving institutional coordination in order to facilitate cultural integration of foreign workers
Together with tax incentives for companies to participate in the process by financing educational programs not directly related to jobs

Retraining of surplus workers and increasing labor market dynamics

The workforce shortage problem will be smaller with a functioning labor market. Good functioning of the labor market means quicker transition of workers from lower-productivity jobs and professions to those with higher productivity. In the market, such transitions take place on a daily basis. However, in parts of the economic system with no direct exposure to the market, there are long-existing jobs that, due to inertia, hide unemployment. **Hidden unemployment – or underemployment – probably exists in the sector of state-owned enterprises which employs approx. 100,000 people in Croatia**.

Better governance of the sector of state-owned enterprises is one of the main recommendations of the OECD, which developed the principles of corporate governance for state-owned enterprises. Good corporate governance in the segment of labor market includes professionalization and depoliticization of the human resources functions in state-owned enterprises, identification of excess employment, and carrying out retraining programs for increasing their employability in other parts of the economy, where there is shortage of workers.

Large private companies with developed human-resources functions can quickly absorb surplus manpower (and contribute to the reduction of total unemployment) if **investment in candidates' job training in the selection phase is enabled by increasing the flexibility of tax incentives**. Increased flexibility of the incentives would improve the functioning of the labor market by inclusion of the still-not-hired people in the educational programs organized and financed by companies. The educational program enables selection of the best candidates; the benefits of education go even beyond that, because non-selected candidates shall have also acquired useful knowledge. As there are still approx. 100,000 unemployed in Croatia, there is still room for additional reduction of unemployment by means of such programs, particularly if these are **learning programs that quickly increase employability, such as language courses and courses in digital skills**. Companies tend to avoid this method of selection because of the costs: covering the costs of education for persons who are not employees is considered the second income, which is burdened with taxes and contributions. Increasing the flexibility of tax incentives for education of non-employees leads to a more active role of employers in the educational process. The employers who use educational programs for candidates as a method of employee selection can at the same time increase the demand for educational services and improve the functioning of the labor market.

Better education

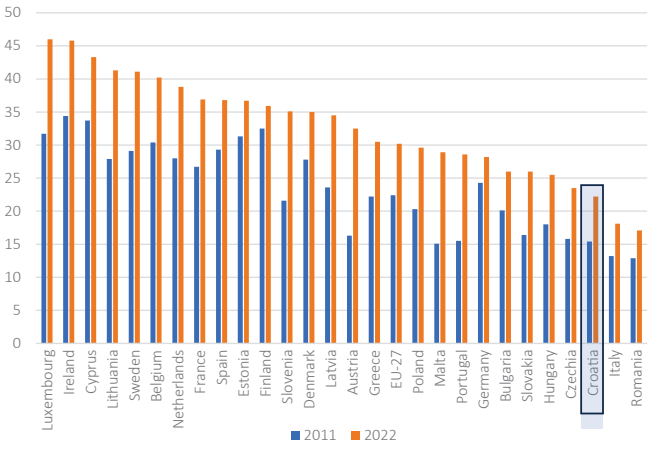
Increasing the quality of education is the key to the modernization of labor market and the entire economic structure. Higher education stimulates entrepreneurship in the sectors with higher added value and ensures the supply of expert workers. Higher education is particularly important in the context of the ambition of catching up with the average socioeconomic development in the EU. However, **Croatia is lagging behind other EU member states in the share of the highly educated** (Figure 20) **as well as in the lifelong education segment**. Admittedly, younger generations are better educated: the share of the highly educated in the 30–34 age group is 34.2 percent. But even this is better only than in Romania, Bulgaria and Italy.

Recommendation # 19: Immediate application of OECD principles of good corporate governance in state-owned enterprises
Professionalization and depoliticization of human resources management requires identification of surplus employees and development of retraining programs

Recommendation # 20: Increasing the flexibility of tax incentives for companies for education
Standardization of tax treatment of costs of education paid by companies for both hired and non-hired candidates when educational program is used as part of employee selection process

The difference in heights of the columns for 2011 and 2022 in Figure 20 demonstrates a slow change: the share of the highly educated in Croatia is growing, albeit at a slower rate than in the higher-education leaders in the lefthand part of Figure 20 (Ireland, Cyprus, Lithuania, Sweden, Belgium and Netherlands). Another reason for concern is the growth of the share of the highly educated which is slower than in similar countries that, like Croatia, were also lagging behind the leading countries in 2011. Malta, Portugal, Slovenia and Austria have made significant progress in the past decade; it should also be mentioned that three of these four countries are important tourist destinations. This means that tourism is not linked with low inclination towards higher education. **Croatia should promptly carry out a comprehensive program of reforms and promotion of higher education in order to reach the European average in terms of the share of the highly educated population**.

Figure 20 Share of population 15-64 with tertiary education in % of total age group



Source: Eurostat

The internationalization of university programs in the open EU education area has large potentials. It ensures major benefits: (1) It creates pressure for meeting the international criteria of excellence required for attracting students from other countries and retaining own students who, in absence of such programs, would go abroad to enroll programs not necessarily of a much better quality; (2) It puts Croatian universities on European maps of recognized excellence; (3) It provides room for additional rewards to the best professors and assistants who usually develop and conduct such programs; and (4) It strengthens competition and aspirations both of professors and of students.

The development of incentives for such programs is out of focus of *White Book*. Still, we have noticed that the higher-education problem is not an isolated one. **Similarly, Croatia ranks poorly in terms of lifelong education indicators and the internationally comparable results of PISA tests for high-school students of 15 years of age**. Although the PISA test results for 2022 were perceived as positive in a part of Croatian public, the fact is that the results of Croatian students in all three dimensions tested – mathematics, reading and science – are below the average of the OECD member states. When it comes to the entire EU, Croatian students did better in mathematics only than their peers from Greece, Bulgaria, Romania and Cyprus. The results in reading were somewhat better. In science, only Italy, Malta, Slovakia, Greece, Bulgaria, Romania and Cyprus did worse than Croatia.

Clearly, Croatia has a general problem with education, manifesting in international comparisons. It is possible that the problem of a relatively low inclination towards higher education emerges earlier – in primary and secondary education – probably due to the excessive load of a not-sufficiently-modernized curriculum. Possible other factors include inadequate stimulation of individual approach, creativity, and learning about learning. The reasons for this are complex and cannot be grasped without an in-depth analysis. Nevertheless, we can conclude that **Croatia needs an emergency comprehensive program of modernization of education at all levels.**

Still, an analysis of enrollment and completion of study programs has shown the potentials of higher education in Croatia. When observing the situation from a bird's eye view, we can see very high shares of enrollments in economics (business administration), law, and services (with tourism studies, logically, dominating this last group of programs due to the economic structure). High shares of enrollments in philosophy, religion, literature, sociology and journalism can be seen. Compared to other countries, there is a relatively low share of enrollments in psychology, health, care and ICT. This picture is somewhat different when the share of graduates in the total number of graduates in the EU in 2021 is observed.[5] Given the country's share in the EU's population (0.85 percent), Croatia has recorded above-proportional shares in the total number of EU

[5] This is Eurostat data and can contain a mistake if a country fails to submit data for a particular area. However, general conclusions are correct.

graduates in the study programs of faculties of humanities and social sciences (ranging from 1.1 percent in history and archaeology to 1.6 percent in religion and theology), management and business administration schools (1 percent), and tourism and hotel industry (1.2 percent). But shares of graduates above the share in the total population have also been achieved in mining (4.3 percent), food processing (2.3 percent), earth science (2.2 percent), environmental protection (1.1 percent), nature (1.1 percent), and chemistry and biochemistry (1 percent). Croatia has recorded a solid share of 1 percent in energetics and industrial engineering (1 percent each) – primarily in electronics and automation (1.6 percent) and mechanics and metals (1.7 percent) – and ICT (0.9 percent – approximately corresponding with the share in the EU population), primarily in database and network management (1.6 percent of all EU graduates in these disciplines come from Croatia). This group also includes mathematics and statistics (0.9 percent), and architecture and civil engineering (1 percent). High shares have also been recorded in agriculture, forestry, fisheries and veterinary science (1.5 percent), and textile, fashion and design (1.5 percent). On the other hand, **there is a concern due to large gaps in medicine (0.5 percent), psychology (0.5 percent), biology (0.5 percent) and materials (0.3 percent). Significant gaps (with shares not exceeding 0.4 percent) also exist in two business disciplines – sales skills and accounting & taxes**. There is an impression that there is no propensity for the practical knowledge and skills required (it is a known fact that accountants are in high demand in Croatia at the moment).

Overall, the analysis has shown that the supply of higher-education programs in Croatia is diversified. **There are disciplines in which Croatian faculties have relatively high shares of graduates compared to the country's population. Some of them are very propulsive and could have an important role in attracting foreign investment** – e.g. ICT, engineering, biochemistry, food processing and agriculture, and mining and geology. Given the above-described starting point, a comprehensive program of reforms and incentives for higher education with an emphasis on internationalization of higher-education programs could yield reasonably short-term to mid-term results.

The participation of companies – particularly large companies with developed human resources functions – cannot replace the role of the central government and universities in reforms and stimulation of higher education and other types of education. Still, the companies with developed expertise for human resources and/or the ones that often use expert intermediaries in the labor market can have a positive effect on the education system by means of early identification of talents, establishing contacts with promising students, making direct corporate investments and donations to higher education, and covering education costs and organizing education. Under current tax regulations, education is but one of the areas of corporate philanthropy for which tax deductions for expenditures of up to 2 percent of previous year's revenue are envisaged. Donations for education can be given a priority if education earns the status of a national priority by applying the enhancement of tax-deductible expenses. This will improve the joint functioning of education and labor market. Bringing the corporate sector and education together will increase the flow of information through the communication channels that help the institutions of higher learning read the signals about the needs of the labor market and adjust their programs and their implementation accordingly. **Participation of companies in investment in higher education should be strongly stimulated through the tax system.**

The tertiary (higher) education, as defined by the ISCED classification[6], includes levels from 5 to 8. The status traditionally called "graduate" in Croatia is represented by the level 6 (7 and 8 being the levels traditionally called MA/MSc and PhD in Croatia). The incentives should particularly be extended to the most flexible level 5 – short-term tertiary educational programs. The ISCED describes them as 2- or 3-year programs for acquiring the practical hard skills and competences required for jobs or higher levels of education. Such programs can be particularly interesting to large companies, that can use the coupling with education for their selection of candidates (see also Recommendation # 20). **Two-year scientific programs are particularly useful for dissemination of two types of knowledge and skills that universally increase employability and are also useful to already employed persons: digital skills and languages other than English** (because English is widely used in Croatia and is included in all school programs, so it does not need additional stimulation). Supports can include donations, company investment in educational institutions (direct or indirect, through business associations) and flexible mechanisms of tax-deductible costs of education. As the quality of education as a subject

[6] UNESCO, International Standard Classification of Education

includes not only tertiary education, but also lifelong education and dual vocational education, the tax incentive system should be reformed in such way that the key role of large enterprises with highly-developed human resources functions be taken into account. These enterprises have the expertise required for comprehensive assessment of needs for knowledge and of the quality of education programs and educational outcomes. In contrast to this, **the tax incentive system for education of own employees which is now in place discriminates large enterprises**. For them, the rates of reduction of their education expenditure from the base for calculating corporate income tax are lower than the rates for small and medium enterprises. The tax-deductible expenditure ranges from only 25 percent for special education to 50 percent for general education. It is not clear what is the purpose of making difference between special and general education programs and what is the use of such low tax-deductible expenditure for large enterprises, as they have the biggest potentials for investment in employee education and for **creating a strong educational and business ecosystem that would bypass the silos of the world of education and work and open the channels for the flow of information from the labor market** in order to ensure adjustment of educational programs. Participation of all enterprises (regardless of their size) in investment in knowledge and skills should be strongly stimulated. Recommendation #20 (increasing the flexibility of incentives so that they also include company payments both for hired and for non-hired persons included in the selection process that includes education), Recommendations #9 and #11 (promoting lifelong education), and Recommendation #4 (increasing tax incentives for participation of companies in dual education) should be strengthened by introduction of the following measures:

Recommendation # 21: Modernizing education, with a systematic campaign for stimulating higher-education demands aiming at faster increase in the share of the highly-educated in the total population.

Recommendation # 22: Internationalizing the programs of Croatian universities

Recommendation # 23: Increasing tax deductions for donations to educational institutions.

Recommendation # 24: Stimulating private investment in education sector

Recommendation # 25: Standardizing tax reliefs for all companies (regardless of their size), abolishing different treatment of general and special programs, and increasing tax deductible expenditure for education to at least 100%.

Efficient public administration, digitalization and attraction of investment

Improvements in the functioning of labor market and education will not have desired effects if Croatia fails to meet the following requirements: ensuring efficient public administration, digitalizing the administrative processes, and introducing an efficient system for attraction and stimulation of relevant corporate investment. Recommendation #1 in *White Book* suggests attracting relevant investment in high-value-added industries. One of the terms often used in the context of a higher added value is **digitalization**.

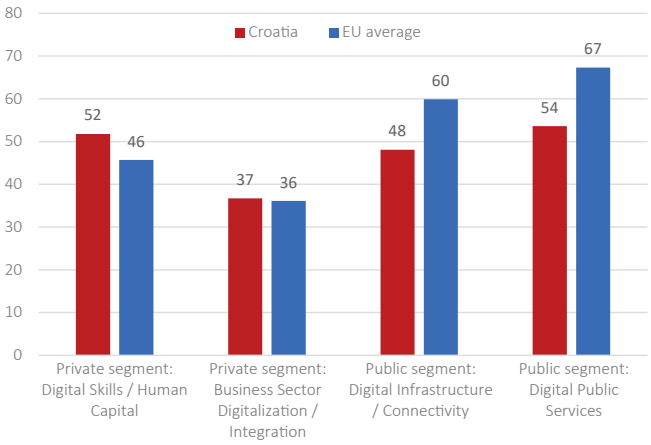
The digitalization of administrative procedures has been mentioned as a policy goal ever since this decade was pronounced the digital decade in the EU. As part of *Next Generation EU* program (Recovery Plan for Europe), 20 percent of funds was allocated to digitalization projects. In the context of increasing the efficiency of public administration and attracting targeted investment, **digitalization is a dual instrument for achieving the goal**: it is both a means of increasing the administration efficiency and a subject of corporate investment for generating a higher added value. The close connection with innovation and R&D particularly underlines the importance of digitalization.

Digitalization: private and public parts

In Figure 21, digitalization indicators from the Digital Economy and Society Index (DESI) are grouped in such way that digital skills, human resources, and digitalization of business sector are described as private aspects of digitalization, while interconnectedness (infrastructure) and digital public services (e-Government) are described as its public aspects.[7] Clearly, there is a digitalization gap in every sector which is lagging behind the EU average. In contrast to this, the private sector has made progress towards the EU average.

The private aspect of digitalization is **Croatia's competitive advantage**. It is explained by (1) relatively widespread digital skills; (2) the earlier mentioned relatively high share of ICT graduates, which should be observed in the context of ICT's 6-percent share in GDP (making Croatia more similar to developed EU countries than to CEE-4 and South-4 groups (Figure 12); and (3) widespread online-sales practice of Croatian companies.

Figure 21 DESI 2022 subindices



Source: European Commision

Outside the DESI index measurement domain, we should also mention the availability and widespread use of financial applications. Based on this criterion, Croatia ranks near the EU average in mobile payments.[8] On the other hand, the gap in the public aspect is explained by (1) only 67 percent of households with access to the ultrafast broadband Internet (making Croatia the second lowest-positioned country in the EU, ahead only of Greece), and (2) low possibility of filling out and submitting documentation for administrative procedures digitally, particularly in case of regulations obligatory for companies.

This disparity between the private and public aspects of digitalization calls for **introduction of incentives for**

[7] This private–public divisions should be taken tentatively. For instance, the infrastructural interconnectedness depends on private investment of teleoperators, but it is the central and local governments who define the regulations and enabling framework.

[8] The analytical annex contains a detailed description of the components of DESI index and its changes over time which indicate that digitalization in the private sector has progressed much faster in the past years. The data about the frequency of mobile payments was calculated from *Financial Access Database* of the International Monetary Fund. The analytical anex also shows the coverage of the ultrafast broadband Internet.

private investment in digitalization in order to additionally strengthen the identified competitive advantage in the private sector by developing Croatian ICT sector and expanding capacities for digital technologies, innovation and R&D in the corporate sector. Also, it is necessary to complete the large wave of investment in state-of-the-art digital infrastructure while strengthening the competition of connection providers at the same time. The most important here is **quick and widespread application of digitalization in the e-Government services for companies, modeled on the tax administration digitalization project**.

The question is what are the origins of this disparity between the private and public dimensions of digitalization. The answer is probably that **digitalization is not a goal but a means** for achieving goals of efficient public administration and attraction of investment. These goals were not placed high among political priorities. This must change if Croatia wants to reach the 90-percent level of real income per capita of European Union.

Better regulation for innovation and growth

Croatia lacks business regulation that would help usher it among the 25 most attractive investment destinations in the world. **Based on the regulatory quality indicator** of the World Bank's *Worldwide Governance Indicators* system, **Croatia is lagging behind both comparable groups of EU member states (CEE-10 and South-4)**. Also, in the latest *Doing Business* report for 2020, Croatia ranked 51st in the world, lagging behind the four comparable countries of Central and Eastern Europe the real income per capita of which was around 90 percent of the EU average: Lithuania ranked 11th, Estonia 18th, Slovenia 37th and Czechia 41st. Based on the principle that **one should run faster than the one one wants to catch up with**, Croatia should be ahead of these countries.

Although a few years old, the World Bank's *Enterprise Survey* shows that Croatia has significant competitive advantages in the segment of access to physical infrastructure.[9] Together with its attractive geographical position and EU membership, better regulation, efficient administration, and good e-Government services for companies, this would certainly attract higher foreign direct investment if it was not for administrative barriers for doing business: Figure 22 shows that administrative barriers function like a millstone around the country's neck because managers waste more time dealing with administrative issues in Croatia than in other countries.

The 2020 edition of White Book explains that the predominance of regulation-related issues among managers dwindles the incentives for innovation and growth.[10] Four years ago, **positive correlation between the quality of business environment and tendency towards**

[9] See Croatia's basics in *White Book's* introduction: Croatia has the third densest network of highways in the EU and the sixth densest international airport network per 10,000 m2 in the EU.

[10] The terms *regulations* and regulation, both used in this book, have different meanings. Regulation is a wider term which also extends to procedures in the application of regulations. The term *business environment* has an even wider meaning.

Recommendation # 26: Incentives for corporate investments in digitalization and R&D
Accelerating the depreciation of software and other intellectual property in case of purchase or own production and/or enhancement of tax-deductible costs of its use if it is not owned by the users

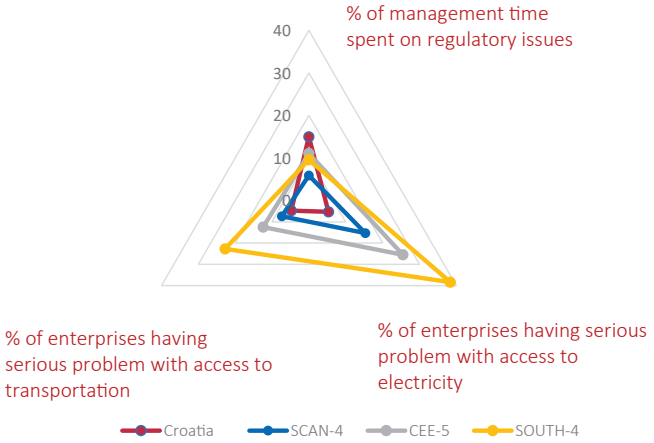
Recommendation # 27: Incentives for investing in ultrafast Internet network
Accelerating the application of the National Plan of Development of Ultrafast Broadband Internet Access 2021–2027 and pinpointing the financial incentives for teleoperators' network investment and strengthening competitiveness in the market

Recommendation # 28: Priority development of e-Government services for companies
Raising the DESI subindex for digital public services above the EU average for digital public services for companies

Recommendation # 29: Increasing the share of business expenditure for R&D to 1.5 percent of GDP

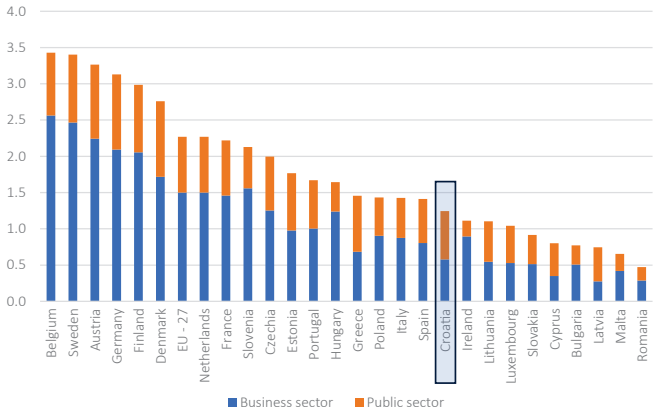
By using incentives for the existing innovative enterprises and attracting foreign direct investment in the enterprises that invest in R&D and create innovative ecosystems

Figure 22 Good sides and bad sides of doing business in Croatia



Source: World Bank, Enterprise Survey

Figure 23 R&D expenditure in % of GDP 2021



Source: Eurostat

innovation was also shown. **This is why digitalization, both as a solution to the problem of administration efficiency and as a subject of company investment, is an opportunity for increasing the strength of the ICT sector and the capacity for adoption of digital technologies and innovation in all sectors (including the public sector) by investing in digitalization**.

Croatia has an opportunity for this because it has made progress in the international comparisons of investment in R&D (GERD). With its R&D/GDP ratio of 1.24 percent in 2021, it is now ahead of nine member states, placed between Spain and Ireland. It is a step forward compared to 2015, when the ratio was 0.8 percent – the fifth lowest in the EU, ahead only of Romania, Bulgaria, Cyprus and Malta. According to data for 2022 (although not yet processed for all member states), **Croatia made yet another step forward; its R&D/GDP ratio rose to 1.43 percent**. However, Figure 23 reveals **Croatia's poor sectoral investment structure in R&D, with a low share of business sector**. This is connected with the earlier shown share of foreign controlled enterprises, rather low compared to small, open and developed European countries. The main characteristic of the R&D leaders in the corporate sector, such as Belgium, Sweden, Austria, Germany, Finland and Denmark, is that innovative enterprises are the ones that deserve credit for high shares of business sector investments. **Croatia should use the investment attraction program to increase the share of business investment in R&D** in all sectors from current 0.6 percent to at least 1.0 – 1.5 percent of GDP per year (this is the ratio recorded by Netherlands, France, Slovenia, Czechia and Hungary).

At first sight, one might think that innovation and investment in R&D do not belong to a chapter on better regulation. And yet, for the second time in a row, *White Book* underlines the joint functioning of better business regulation, innovation and production of a higher added value. Better regulations with lower regulation costs and less time lost for key managers serves not only for increasing profitability, but also for generating more time and resources for innovation and investment – in other words, generating a higher added value. **The better the regulation, the better the innovation and growth.**

The systems of comparable international indicators of the quality of regulation and efficiency of administration and business environment, such as Product Market Regulation (OECD), B-READY (this World Bank system has succeeded *Doing Business* and will be introduced for the first time in spring 2024), DESI (European Commission), *Enterprise Survey* and *Worldwide Governance Indicators* (World Bank) and other indicators, particularly in the field of innovation and R&D, **should be used for identifying strengths and weaknesses, defining priority measures for elimination of admin-**

istrative barriers, and improving the business environment in order to enable Croatia to become one of the 25 most attractive investment destinations in the world, recognized as location where high added value and innovation are generated.

Regulations "on paper" are one thing; in practice, however, regulation is sometimes autonomous. Particularly if negative changes are common. **Frequent increases of stringency of the regulatory framework and varying standards of its application deter investments because they increase risks and costs of investment**. When an administration starts showing tendency toward frequent and unforeseen changes of business environment, it will have problems convincing investors that it regulates an attractive investment destination.[11] Still, the experience of the countries with the best business environments in the world – just like some recent experiences in Croatia – provide frameworks for developing good solutions. For example, some countries attract investors by opening special, limited investment accounts for which inalterability of the tax treatment in place at the moment of its opening is guaranteed. Subsequent tax changes have no effect on the net investment income earned through the protected account. This application of the **regulatory continuity principle** can also be recommended in other departments. For example, unforeseen and non-transparent changes of zoning plans often obstruct and deter investments that include construction. Such changes are a democratic right of local and regional government units that cannot be reduced. However, there are ways of protecting the investors – like in Croatia, **where it is now possible that location permit be obtained before all property-related issues have been resolved, thus guaranteeing that the zoning plan in place at the moment when the location permit is obtained will be applied even if the plan is altered before the general design has been approved**. An analysis of a large sample of relevant investment projects can be recommended in order to identify some key regulatory areas where the regulatory continuity principle could be applied.

Attractive business environment and predictable regulation with rational and justified regulatory costs are the best factors of attraction of foreign direct investment in companies that generate high value-added per employee. For the application of this principle to yield results, those who are to choose the priority measures for the improvement of business environment, ensure resources for their implementation, control the implementation, and be responsible for the results must be identified. While it seems obvious that it should be the Government of the Republic of Croatia if it adopts the proposed developmental goals, a deeper analysis of the organization and public resources used for the investment attraction and promotion projects should nevertheless be carried out.

The Ministry of Economy and Sustainable Development, together with its Directorate for Internationalization, its Sector for Competitiveness, and its Business Environment Improving Unit, have been entrusted with implementation of Croatian regulation improvement project. In the annual report on Ministry's activities for 2022 and on the Directorate website, the following measures are presented:

1. **Completion of Action Plan for Administrative Unburdening of Economy**. By 2022, fifty unburdening measures have been carried out,

[11] The sudden and delayed introduction of a special profit tax in 2022 is an example of such regulatory change, although it can be understood to an extent in the aftermath of the energy crisis.

Recommendation # 30: Placing 25th or higher in the world by comparable international indicators of regulation and business environment quality by 2028
Using a number of systems of internationally comparable indicators of business environment and consulting the private sector in order to identify advantages, gaps and priorities for regulatory improvement

Recommendation # 31: Extending the application of regulatory continuity principle
Identifying possible applications by analyzing a large sample of relevant investments and incorporating key applications of regulatory continuity principle in regulatory improvement action plans

with the overall financial effect of approx. EUR 71 million (0.1 percent of GDP).

2. **With technical assistance of the OECD, the project of improvement of regulation through innovation and digitalization** has been launched. As part of this project, new Action Plan for Administrative Unburdening of Economy will be prepared and a regulatory sandbox for innovative business experiments will be set up.

3. **Coordination and training of public bodies for preparing regulations in line with the better regulation principles**. The report mentions four trainings attended by 41 public administration experts for developing SME tests for assessing the regulatory impact on small and medium enterprises (including the application of Standard Cost Method – SCM). Digitalization of the SME test is also planned as part of the project (2).

These projects are very useful but their scopes and deadlines have not been coordinated with achieving the more ambitious developmental goal proposed in this document. In this edition of *White Book*, Foreign Investors Council underlines once again the **need for a more ambitious approach and faster decision-making in administrative procedures and policy implementation**. Insufficient decision-making speed can be seen from the fact that the old Action Plan for Administrative Unburdening was completed in 2022 and adoption of the new one was announced by the end of 2023. The lack of continuity is a consequence of a lack of clear goals and selection of priorities which, on the implementation level, leads to inadequate capacities and a lack of continuity in regulatory improvement.

The strengthening of capacities of the Sector for Competitiveness of the Directorate for Internationalization of the Ministry of Economy and Sustainable Development will not yield results as such if its goal and the responsibilities for it are not set and coordinated on the highest level of the government. For the implementation of the regulation improvement program to be efficient, **National Coordination for Improved Innovation and Growth Regulation** is required. A sector in a directorate of a ministry can serve as a technical secretariat and body for operational coordination, however, autonomous functioning of such public body, with maximum support from the responsible minister, is often facing silos in public administration when coordination of a number of ministries and agencies is required. Particularly if administrative problems crossing the competencies of state-owned enterprises and local (regional) government units are being solved, which is often the case.

The same coordination principle should be applied when investment attraction and promotion activities are being coordinated. Improvement of regulation and attraction of investment are related tasks and multiplying coordination can be injurious. This is why the same national coordination can perform both tasks – the coordination of business regulation improvement and investment attraction. This recommendation should be incorporated in the National Investment Promotion Action Plan for 2024. The details of the coordination of attraction and promotion of investment can be found further in the text.

Financial aspects of investment attraction

Investment Promotion Act (Official Gazette 63/22) provides an important framework for the investment subsidies used between 2014 and 2022 by 764 compa-

Recommendation # 32: Strengthening capacities of Sector for Competitiveness of Ministry of Economy and Sustainable Development

Extending the measuring of regulatory costs to the entire corporate sector (not just small and medium enterprises) and reducing the total regulatory costs by adopting and implementing – as soon as possible – a more ambitious Action Plan for Unburdening which should also include the measure of abolishing two old regulations for every new one if the regulatory costs have not been measured accurately, thus making it impossible to establish if the total regulatory costs are increasing substantially

Recommendation # 33: Setting up National Coordination for Improved Innovation and Growth Regulation and integrating the proposal in National Action Plan

nies with the total planned investment of almost EUR 6 million per project on average, with planned hiring of around 27,000 workers. These figures illustrate substantial effects on the incentives, but expert evaluation has not been carried out: **it is not known how many plans have been implemented, what is the projects' contribution to the general growth of productivity and wages, and how has the application of Investment Promotion Act contributed to attraction of relevant foreign direct investment**. We can only speculate: the available information indicates that the share of foreign controlled enterprises among the incentive beneficiaries was not above-proportional compared to their general share in Croatian economy. The amounts suggest that the subsidies are directed towards small and medium projects and that they are limited for large enterprises (Box 1). This indicates that the effects of the subsidies are not optimally coordinated with *White Book's* main recommendation – active attraction of a small number of key relevant investments that, by their amounts, technologies, and effects on the local supply chains with a higher added value, make large contribution to the modernization of Croatian economy. We can also speculate that distribution of the administration's limited resources over a large number of projects has weakened the focus on the equally important tasks of business environment improvement and targeted investment attraction. More on this can be found in the section below on the organization of these tasks. This weakened focus of the administration is also indicated by the legislator's ambition to achieve as many goals as possible with a single incentive instrument (although it is very hard or impossible to achieve a large number of economic goals equally well with a single instrument). For example, the Act also envisages incentives for labor-intensive investments, regardless of their limited contribution to the growth of productivity, particularly in the conditions of a tight labor market. The Act also envisages regional differences in subsidies, depending on unemployment rates in individual counties.[12]

The administration's focus and resources are additionally dispersed because of the responsibility of the Directorate for Internationalization of the Ministry of Economy and Sustainable Development for implementation of the *Act on Strategic Investment Projects of the Republic of Croatia* (Official Gazette 29/18, 114/18). This Act is of no direct importance for attracting foreign direct investment in the companies generating high value-added per employee, but it could be important if such investment uses inactive property owned by the Republic of Croatia and if it includes construction. The application of the Act on Strategic Investment Projects of the Republic of Croatia does not exclude the application of the Investment Promotion Act, but it is focused on public investment and public-private partnerships (PPP) which include activation of the real property owned by the Republic of Croatia and maritime good, as well as construction of new objects. The Act envisages a possibility that private projects[13]

BOX 1. INVESTMENT PROMOTION ACT

The possibility of reducing the profit tax rate by half over a five-year period starts from investments exceeding EUR 50,000, on the condition that 3 new jobs are created. The reduction of the rate grows to 100 percent over a period of maximum 10 years, with two more steps that depend on the amount of the investment and the number of jobs created at the most favorable conditions (a 100-percentr reduction over 10 years) for investment of between EUR 150,000 and EUR 1 million if not less than 15 new jobs are created. The same is possible for higher investments if they include activation of inactive property owned by the state. However, the total amount of subsidies is limited by the map of regional subsidies which envisages stronger limits for subsidies for large enterprises. There is also the maximum amount of subsidies of EUR 7 million per year. Subsidies are possible even without the condition of creating new jobs if an investment of above EUR 500,000 contributes to the modernization of business operation. The Act also envisages direct subsidies for creation of new jobs (up to EUR 9,000 per new employee) and for in-service training of employees (50 to 70 percent of the recognized training cost). Additional subsidies for creation of new jobs are also included: subsidies for creation of new jobs for development-innovation activities, for business support and high value-added activities, and direct subsidies for capital expenditures in industry if not less than EUR 5 million is invested and not less than 50 new jobs are created. The productivity growth goal is directly supported by subsidies for automation, robotization and digitalization in industry, based on the scale of reduction of corporate income tax rate from 50 to 100 percent on the condition of increasing productivity per employee for the minimum of 10 percent after 3 years.

[12] Investment Promotion Act also envisages subsidies for labor-intensive activities in the form of reduced profit tax rates, depending on the increased number of new jobs (scaling of a reduced tax rate from minimum 100 to 300 workers

[13] The definition of the sectoral scope given in Article 3 of the Act is not clear enough. The wording of the article first suggests that all economy-related projects can obtain the strategic investment status, thus indicating an extensive application of the Act. But then it itemizes sectors (which do not include industry and ICT, for example) such as power supply, mining, tourism etc. and then it specifies the generic names of various types of in-

also be granted the status of strategic investment. However, private initiatives for obtaining the strategic project status are time-consuming and require communication with the administration for better understanding of the conditions to be met (Articles 8–10). There is also a possibility that the Government calls for applications of interested investors if it has prepared such a project (Article 6). **When support to investment is concerned, the most important characteristic of the Strategic Investment Act is the special procedure for granting concessions and issuing administrative decisions (Article 2), based on which the interdepartmental government coordination that facilitates the implementation of investment has been established**. Such procedure and coordination have not been envisaged for the investment promoted under the Investment Promotion Act. This is logical, given the numerous small and medium sized projects promoted under this Act. However, in case of investments that systematically contribute to modernization of the economy – because they are relevant in terms of their amount, effects on productivity, labor market, local supply chains and/or innovation and R&D – assisting them by using the interdepartmental government coordination would increase Croatia's attractiveness as an investment destination. This would reduce the dispersion of the limited resources of the public administration and strengthen the focus on the investments with the highest returns in terms of their effects on the long-term sustainable economic growth aimed at reaching 90 percent of the average European economic development level.

In line with the limitations arising from EU subsidies rules for large investment, **incentives should be extended to large and relevant projects that strongly increase competitiveness and productivity of the economy irrespective of qualification under Strategic Investment Act**. These are almost always the projects of large international companies with high concentrations of intellectual property, capital, substantial economic experience and capacity for quick access to foreign markets. This last item is of particular importance when investment is being attracted in order to increase exports. Direct subsidies for large international companies are limited by European regulations on subsidies and by international profit taxation principles that will probably become more stringent in the future. This is why the universal incentive measures which are applicable to all companies and can contribute to attraction of targeted investment should first be applied.

Reduction of corporate income tax rate for large companies from 18 to 15 percent is an example of a horizontally applicable measure with additional importance. If it is introduced as part of an extensive package of measures for attraction and promotion of investment, it will signalize the government's commitment to establishing a stimulative investment environment while maintaining equal business conditions for participants in the market. As part of a successful package of measures, such a measure will not constrict the fiscal capacity. On the contrary, the fiscal capacity could grow as a result of creation of a new tax base due to increased volume of business in Croatia.

In accordance with the principle of equal treatment of entrepreneurs, we should also consider the application of universal horizontal measures such as accelerated depreciation of long-term assets and the stimulative factors of recognition of expenditures (above 100 percent) for the purpose of reduction of the base for calculating corporate income tax when the tax-deductible expenditures are related to the use (e.g. rental) of the assets that substantially increase productivity. This also refers to other costs with the same effect (e.g. costs of marketing and sales in new export markets). These incentives should not be applicable to real estate (because investment in such assets in Croatia is sufficient already and, in addition, they do not have such a direct and strong effect on productivity as assets such as machinery, equipment and software does).

Some of the described incentives were mentioned earlier (Recommendation #26 on investment in digitalization of companies and research & development), but should nevertheless be extended and made more specific. For example, **tax incentives should include investment in modern industrial machines and equipment, cost of rental of such assets, and incidental expenses for the services of their maintenance and use which substantially increase the productivity of labor**. The Investment Promotion Act contains but a single (low) criterion for

frastructure, although such infrastructural sectors as transport, electronic communications, public utilities etc. are specified.

Recommendation # 34: Reducing corporate income tax rate from 18 to 15 percent

subsidies, related to productivity (a 10-percent increase over 3 years in case of investment in automation and robotization). In the new investment promotion model, **incentives could be extended, but with more stringent conditions – higher thresholds of growth of the productivity indicator**. For example – if foreign sales revenue per employee or productivity are realized in a percentage substantially higher that the industry average. An accurate definition of the indicator threshold would certainly require additional analyses and consultations.

Targeted relevant investment means much higher added value and higher incomes of expert employees. The high level of progressiveness of labor taxation in Croatia can deter targeted investment. The highly-paid labor in Croatia is not competitive compared to most of the competitor-countries in Central and Eastern Europe due to high income tax and contribution rates. Under the Investment Promotion Act, the one-time employment incentives in the form of lump sums that depend on county employment rates are not enough. We recommend that a limit for the base for calculating the health insurance contribution modeled on pension insurance be introduced and that the possibility of **cascade reduction of social contribution rates, depending on the amount of wage over a two-year period upon creation of a new, highly-paid job, be taken into consideration**. This would compensate for the initial fixed costs of starting a business and creating a very expensive job. Society would still profit momentarily if such job would otherwise not be created. Since the first day, creation of such job would bring new knowledge to the economy, and higher contributions for higher wages would be paid to the state budget, even with reduced contribution rates. The incentive should be applicable during a limited period, so that, after such period has expired, the contribution rates could grow to the level of the general rate applicable to all employees. In the long run, society would certainly profit from this structurally and fiscally.

Some of the high compensations to key expert employees in Croatia can be made in an alternative way if the owner–employer is willing to allocate stocks or shares to the employees. In such case, income tax is calculated at a 20-percent rate in net terms, thus increasing the effective rate. **By calculating the tax at the rate for income from capital (12 percent) if stocks or shares are allocated, a wider use of this type of participation of key employees would be stimulated.** This type of ownership participation leads to equalization of income distribution and creates a strong incentive for the growth of productivity.

Although most of the recommendations in this section are meant to be universal – equally applicable to all stakeholders in the market – some of them will, by the nature of things and due to other regulatory limitations, be applicable to targeted investment only. Such is the case with Recommendation #35 (tax-deductible expenditures connected with substantial technological progress and growth of exports) and Recommendation #36 (reduced cascade social contribution rates). This means that **investment will be followed by an investment program that specifies the intentions, conditions, deadlines, expected effects, and other relevant investment parameters which are to be assessed and monitored by the public administration**. For example, assessments will be made of the nature of the technology involved and the incidental costs of maintenance and other services (so that tax incentives could

Recommendation # 35: Extensive application of accelerated depreciation and increased tax-deductibility of asset-related expenditures
Applicable to investment and accompanying costs of projects that swiftly, substantially and permanently increase productivity and export of goods and services

Recommendation # 36: Temporary cascade (depending on wage) reduction of social insurance contribution rates for newly-created highly-paid jobs
With universal application of an upper limit for the base for calculation of health insurance contribution

Recommendation # 37: Taxation of employees' stocks and shares at a rate applicable to capital incomes

be determined), and of the description and amount of incomes of the employees occupying newly-created highly-paid jobs. It is important that the criteria and measures for their assessment are not numerous and that they are accurate and with high thresholds, so that only the projects that contribute substantially to the modernization of the structure of Croatian economy would meet the conditions for falling into the category of relevant investment that deserves incentives. This way, the administration could focus on attracting and implementing only the key projects. This is relatively easy to achieve when it comes to **two key criteria suggested here: a project's contribution to the growth of Croatian export of goods and services and contribution to the growth of value added (per employee, which is a measure of productivity)**. Of course, receiving the full amount of an incentive will only be possible if the expected effects are really achieved.[14]

Assessment and monitoring of projects make it possible for **some incentives to be based on quality-related criteria**. There should also be a small number of them and they should be ranked by their importance. We suggest that three criteria be considered: (1) hiring Croatian citizens who have emigrated abroad in the past 10 years; (2) an investment's contribution to expansion of local supply/value chain through investment and procurement of goods and services produced in Croatia; and (3) an investment's contribution to purchasing goods and services or to further direct investment that stimulate Croatian technological startups, innovation, and investment in research & development.

Organizational aspects of investment attraction

The new approach to attraction and promotion of investment requires concentration on a small number of targeted relevant investments. It also requires larger operating capacity and knowledge of competent operating bodies, and better coordination and clearer statement of priorities of the Government's economic policy.

The Directorate for Internationalization at the Ministry of Economy and Sustainable Development is in charge of stimulating investment and developing the entrepreneurial infrastructure. This infrastructure is very fragmented on the local level, thus causing difficulties for the coordination. **Each county and large city should establish a single contact-point – an office or a regional development agency – that would be in charge of regional coordination for operational support to investment processes**. Together with the Directorate for Internationalization, these 21 (or maximum 30) regional contact-points would constitute the **Regional Coordination for Investment**. This regional coordination would exchange information and best practice, thus contributing to the development of healthy institutional competition in attracting investment among local and regional government units and to stimulation of economic growth.[15] **Counties themselves should try to brand themselves as investment destinations and encourage such an approach of their cities and municipalities**. The first project of the Regional Coordination for Investment should be establishing a single database of central, regional and local investment supports and entrepreneurial infrastructure with an intelligent browser. Based on a simple Internet questionnaire with approximately 5 questions (amount and type of investment, sector, preferred location), the interested investors will be able to narrow down the set of information by using the "funnel" method, thus making this set of information relevant, and find contact information of the competent persons. The relevant information included in this project should contain overviews of local economies, labor market, local tax and non-tax levies, regional competitiveness indicators and the like.

The Regional Coordination for Investment is an example of increased efficiency of support processes for stimulation of investment. **Efficient operational support processes (permits, access to accurate and timely information etc.) are often more important that the fiscal incentives themselves**.

Increasing the efficiency of administrative support also includes: (1) efficient investment support and providing information to potential investors; (2) providing advice and assistance to investors as regards the procedures related to labor market functioning and finding employees; and (3) providing explanations and assistance to investors in using the development potentials of local supply chains. These are very complex tasks. It is hard to develop full capacities for efficient execution of these tasks within the Ministry of Economy and Sustainable Development. This is why the Directorate for Interna-

[14] For setting the indicator thresholds to optimal levels, additional research should be carried out.

[15] The projects of the Regional Coordination for Investment are described in detail in the analytical chapter in the second part of White Book.

tionalization should rely on a **network of external collaborators and partners when executing the tasks of attraction and promotion of investment**.

The network of external partners partly relies on similar mandates of public institutions (e.g. inclusion of economic diplomacy in the promotion of Croatia as an attractive investment destination and inclusion of the Croatian Employment Service in finding employees) and public-private organizations (Croatian Chamber of Commerce for international promotion). It also relies on targeted consulting contracts (e.g. data collection and analysis, lobbying). Thirdly – and largely – it relies on the organizations and individuals' private interest in participation in attraction and promotion of investment because this is what brings new business to them. This group includes business ambassadors and intermediaries, large corporations already present in Croatia, business associations, big consulting companies with international connections, experts for mergers and acquisitions, employment agencies, acclaimed law firms with international connections and the like. Such a network should be developed, managed, and used for exchanging information by organizing frequent business events in Croatia and abroad. For example, based on an analysis of the probability of attraction of individual types of investment and corporations from the targeted partner countries, annual promotion plans should be agreed upon and members of the network should be included in the realization of such plans. Priorities should be identified, too. Some countries will emerge as constant priorities of action, given the potential for generating new export and attracting higher value-added investments. Such candidates are the U.S. as the world's leading economy, India as the "new China" for the following 25 years (and China itself), and Germany as Europe's leading economy and Croatia's trading partner no. 1. Some other countries will also emerge as priorities on certain occasions. With its size and accumulated experience in investment processes, Turkey is an interesting non-EU partner that, like India, could recognize Croatia as a "partner gate" for its strategy of access to the European Union's single market.

The Invest Croatia website should be supplied with high-quality contents and modernized by implementing an intelligent browser based on a simple web-questionnaire that would enable actions like the above-described example of searching for the possibilities of obtaining subsidies. The website should include easy-to-survey economic data, forecasts and analyses, comparative data about the tax system (with an emphasis on Croatia's advantages), and service instructions important for foreign investors. Advanced intelligent web solutions should be able to adapt the contents to the location of the IP address from which a query is com-

Recommendation # 38: Introducing quality-related elements in assessment of investment programs
Effects on employment of returnees, expanding local supply/value chains, and effects on innovative technological startups and ecosystems.

Recommendation # 39: Establishing Regional Coordination for Investment
Unique regional databases and web-service for investors, exchanging information and best practices, vertical coordination of the operational support to relevant investment between Directorate for Internationalization and regional contact-points

Recommendation # 40: Developing partner network for support and promotion of investment

Recommendation # 41: Modernizing *Invest Croatia* webpage
Implementation of AI solutions, integration with CRM system, ensuring high-quality contents for potential and current investors and other stakeholders and incorporating it in an integrated communication plan

Recommendation # 42: Ensuring adequate budget, profile of experts and employee remuneration system

Recommendation # 43: Establishing National Coordination for Better Regulation and Key Investment

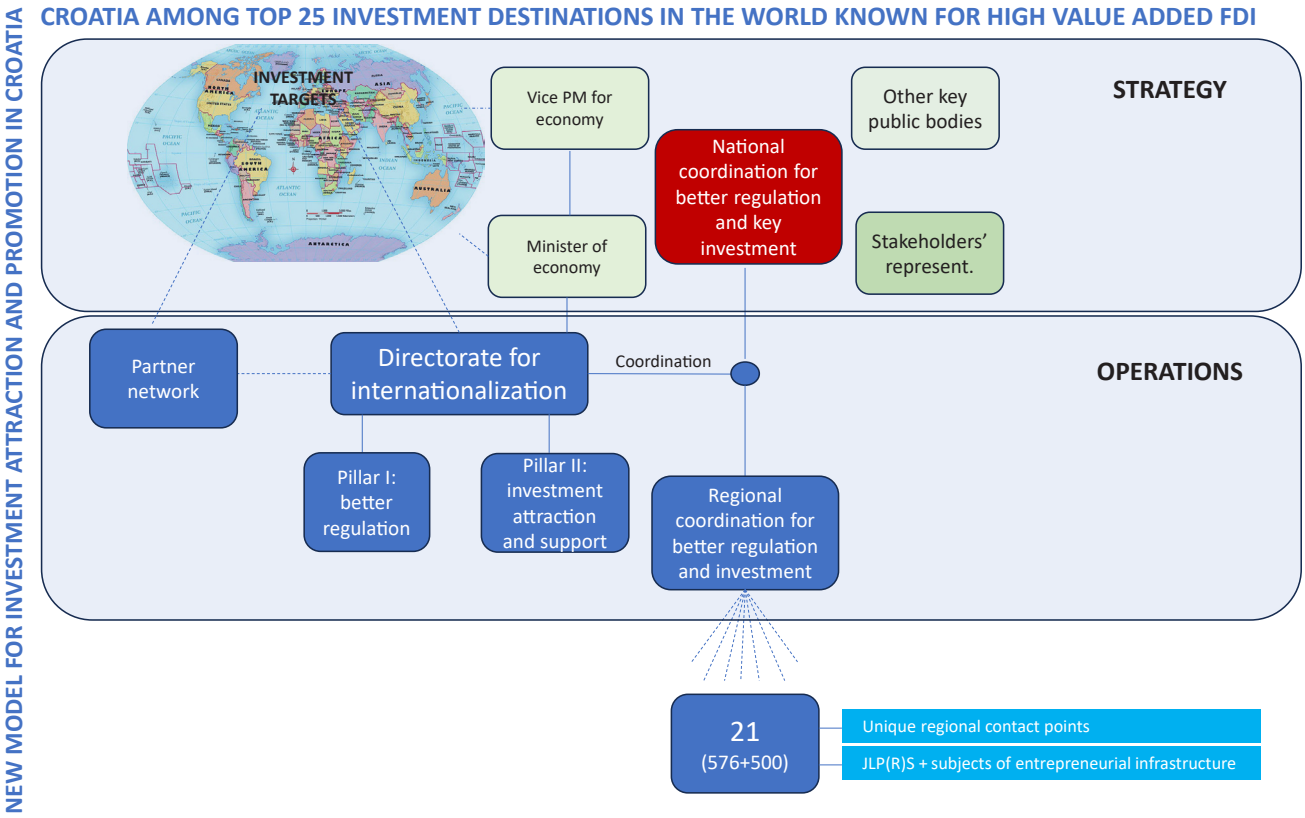
And pinpointing the Coordination's roles through National Investment Promotion Action Plan for 2024.

ing. The visitor will thus have instant access to the first set of information about the relations between Croatia and the country the query is coming from. As soon as the modernization of the website begins, integration with AI applications should be planned. This will enable optimization of the contents offered through the system's active algorithmic dialogue with the visitor – potential investor or stakeholder of investment processes. Integration of artificial intelligence in *Invest Croatia* web service will help the promotion of investment by presenting Croatia's possibilities for implementation of state-of-the-art digital solutions and will also serve as a basis for the use of digital marketing and innovative solutions in communication with the world of investment. The AI implementation should be planned in the earliest stage of the announced implementation of the CRM system of the Directorate for Internalization.[16] The development of *Invest Croatia* web page and its contents should be incorporated in the integrated communication plan for the promotion of Croatia as an attractive investment destination. **The budget of the Directorate for Internationalization, together with the profile of its experts and its employee remuneration system, should be adapted to the requirements of the described investment attraction activities**.

The last, but not the least important recommendation concerns the setting up of the vertical coordination of the investment attraction activities. In a fragmented public sector, a special place in the investment processes is occupied by various ministries and agencies and local public bodies and the state-owned enterprises controlled by public bodies at various government levels. For example, the investment processes involving new construction, which require space and infrastructure, necessarily include state-owned energy company HEP, water supply and sewerage utilities, a road construction company or local directorate and other points of local administration. More complex projects include activities such as development of environmental impact assessments, water-supply connection feasibility studies, compliances with various standards and, occasionally, zoning plan amendments and similar activities. In such a fragmented system, the coordination of the operational support to complex investment is very difficult. The Directorate for Internationalization is not even authorized to require anything from some of these institutions or to hurry them up. However, when action is taken in accordance with the Act on Strategic Investment Projects of the Republic of Croatia, the interdepartmental government coordination is activated, together with a special procedure for granting concessions and issuing administrative decisions. This procedure simplifies and expedites the investment process. What needs to be done is **finding the best way how to provide the same level of interdepartmental government support to the targeted key investment that does not meet the applicable criteria under the abovementioned Act (because it does not include activation of state property and construction)**. One way is to extend the Act by adding to it the criterion of relevant contribution of an investment to the growth of exports and productivity and modernization of Croatian economy. The other way is to establish a mechanism of special operational support through the **National Coordination for Key Investments**.

A National Coordination for Key Investments should also be established if the Government decides to extend the Act on Strategic Investment Projects of the Republic of Croatia. It should be called the National Coordination for Better Regulation and Key Investments. **The National Coordination would determine the goals and priorities of attracting investment, monitor their accomplishment, mobilize and coordinate operational support at government levels, and coordinate investment promotion activities with better-regu-**

[16] Annual report on the activities of the Ministry of Economy and Sustainable Development for 2022.



The analytical annex explains in detail how the regional single contact-points involved in the Regional Coordination for Investment coordinate the fragmented system of around 500 subjects of entrepreneurial infrastructure (incubators, accelerators, business zones and free zones) which is dispersed over 576 local and regional government units and cannot be coordinated by a single ministry.

lation activities (given the fact that these activities are related). The National Coordination is also important because it would involve a number of ministers in attracting and effectuating truly key investments of a systemic importance and coordinate the regulation improvement activities.

The National Investment Promotion Action Plan, currently in the pipeline, is supposed to recognize the importance of the National Coordination for Better Regulation and Key Investment and describe its functioning on strategic level. The proposed scheme envisages that the Coordination be open to external stakeholders and independent experts, so that the priority investment-attraction tasks could gain public support. The Coordination's openness to public is also important for ensuring public trust and support to the policies proposed. The general public should be convinced that the implementation of the investment attraction and promotion program is in public interest and that favoring any partial private interest is strictly avoided. **The Coordination is the central point expected to provide public explanations of the goals and reasons for directing resources to the key-investment attraction project: achieving real income per capita at the level of 90 percent of the European average, returning some of the emigrants, and enabling demographic recovery. Structural modernization of Croatian economy by means of new investment in the sectors and companies that generate higher added value is a precondition for achieving this strategic developmental goal.**

ANALYSES

FOREIGN CONTROLLED ENTERPRISES IN CROATIA: LATE BEGINNING AND SUBSEQUENT CATCHING-UP

Abstract

On average, foreign controlled enterprises are bigger, more productive and more profitable; they export more and pay much higher average wages to their employees. In Croatia, their share in the corporate sector employment has reached approx. 18 percent. However, if only relevant companies with annual revenue exceeding one million euros are taken into account, foreign owned companies employ as much as 27 percent of workers in the large enterprise segment. When considering their share in value added, revenue and export, this share is much higher than 30 percent. Of the 12,721 Croatian companies that recorded annual revenue above one million euros in 2022, the foreign owned ones account for more than a half of the sales revenue achieved in the foreign markets for relevant companies. Such companies are crucial for internationalization of the economic structure in the European Union's single market.

As it lagged behind other Central and Eastern European countries in the EU accession process, Croatia is also lagging behind in the process of the corporate sector internationalization. This is why the growth of share of foreign controlled enterprises – rather conspicuous in the past years – does not mark the end of the growth of relevance of international enterprises in Croatia. International comparisons taking into consideration the size, level of development and openness of an economy indicate that there is still plenty of room for the growth of foreign controlled enterprises. When it comes to internationalization of the corporate sector, Croatia is lagging behind the small and open economies of Central and Eastern Europe.

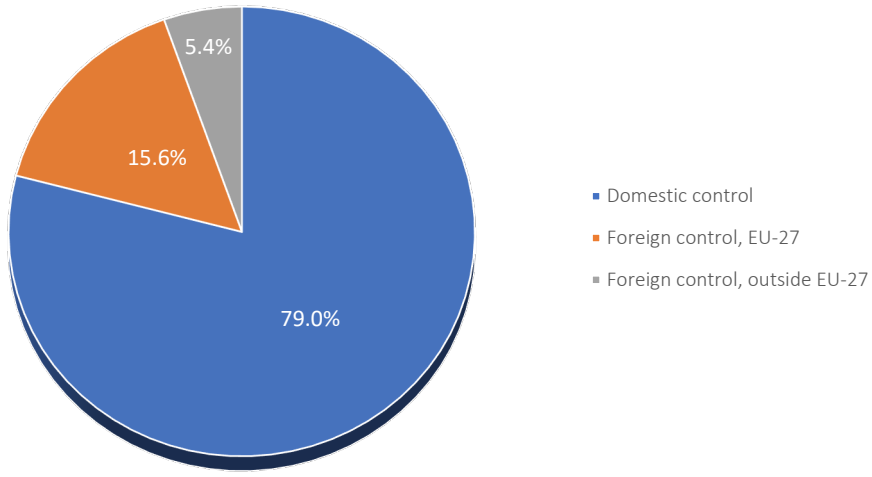
But the enterprise internationalization process is not limited to former transition countries alone. In the small and open economies of the European Union's developed part – in the countries like Netherlands, Denmark, Finland, Sweden, Portugal and Austria – corporate sectors are also very internationalized and export-oriented. Foreign direct investment is crucial in forming their economic structures, too. The same can be seen in successful small and open countries worldwide – e.g. Israel and Singapore. Consequently, while they may not boast cost advantages, the "expensive" investment locations such as Denmark, Netherlands, Ireland, or Sweden nevertheless attract foreign investment due to their educated workforce, rule of law, strong institutions, sound policies, efficient administration, and internationalized and innovative corporate sectors doing business in the EU single market.

Further internationalization of the corporate sector could improve Croatia's prospects for catching up with the average living standards in the EU. Foreign direct investment, export, and integration of its companies into the international value chains in higher value-added industries are the necessary conditions for Croatia's real convergence towards the EU average. For achieving this goal, better policies are required – particularly in the segments of education, labor market, and improvement of business regulation and active investment attraction and incentives.

According to Eurostat (and Croatian Bureau of Statistics – CBS), in 2021 there were 217,553 entreprises in Croatia, with a total of 1,214,455 employees. The average number of employees per company was 5.6. Of these, 206,515 enterprises (94.9%) were domestically controlled. They had 959,730 employees or 79 percent of the overall workforce in the corporate sector (the average number of employees per company being 4.7). The remaining 11,038 enterprises (5.1%) were foreign controlled and had 254,725 employees (21 percent of the overall workforce in the corporate sector).

In terms of number of employees, the average size of foreign controlled enterprises was considerably larger than the average size of domestically controlled ones: 23.1 employees per foreign controlled enterprise compared to the overall average of 4.7.[1] There is also a difference in terms of the origin of foreign control (EU or non-EU): there were 7,390 EU-controlled enterprises in Croatia in 2012. They accounted for 3.4 percent of the total number of enterprises and 67 percent of the foreign controlled enterprises. They also accounted for 188,850 employees (15.6 percent of workforce in the corporate sector), with the average number of employees per company being 25.6 in 2022. On the other hand, 3,648 enterprises (1.7 percent of the total number and approx. 33 percent of foreign controlled enterprises) were controlled by non-EU owners. They had 65,875 employees (5.4 percent of workforce in the corporate sector), or 18.1 employees on average.

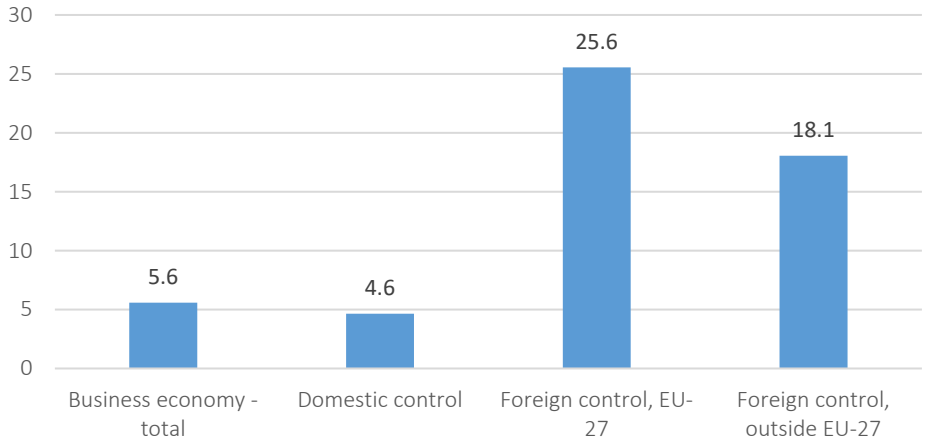
Figure I-1 Shares in corporate employment in 2021



Source: CBS

[1] Eurostat's term "foreign controlled enterprises" (iFATS) refers to the foreign controlling units the residency of which is determined based on the ultimate controlling institutional unit (UCI) of a foreign affiliate not controlled by another institutional unit moving up the foreign affiliate's chain of control. When identifying UCIs in its statistical research, the Croatian Bureau of Statistics uses a simple back-up criterion of establishing the whereabouts of the head office of the first foreign majority owner. UCIs are obtained from the EuroGroups Register (EGR). For corporate subjects not listed in the EGR, UCIs are identified using the back-up criterion based on the head office of the first foreign majority owner and as such can be obtained from the Statistical Business Register (SBR). In this context, Eurostat's term 'enterprise' is more comprehensive that FINA's term 'entrepreneurs' or enterprises (entrepreneurs submitting financial reports). Source: Croatian Bureau of Statistics, Priopćenje POD 2023-2-1.

Figure I-2 Average number of employees in enterprises in Croatia according to type of ownership control in 2021

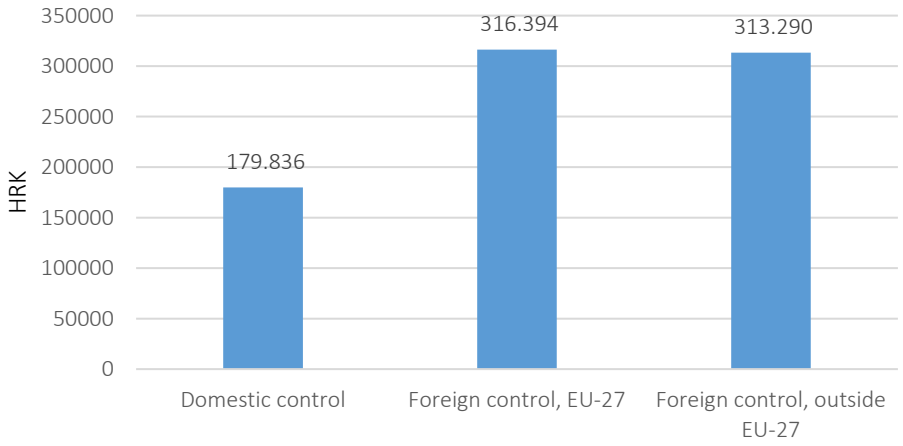


Source: CBS

Enterprise productivity

Foreign controlled enterprises record high labor productivity. Employing 21 percent of the corporate workforce, they accounted for 38 percent of the total volume of business and approx. 32 percent of gross value added (GVA) in 2021. In domestically controlled enterprises, the gross value added per employee was HRK 180,000; in foreign controlled ones it was approx. HRK 316,000 (75 percent higher). The origin of foreign control made no difference here. In 7,390 EU-based enterprises, the GVA per employee was merely 1 percent higher than the GVA per employee in 3,648 foreign controlled enterprises from outside EU.[2]

Figure I-3 GVA per employee per type of ownership control in 2021



Source: CBS

[2] The non-EU foreign direct investment in Croatia mostly comes from the United Kingdom, Switzerland, U.S., Russia, Norway, UAE, China and Turkey.

On average, foreign controlled enterprises are approximately five times bigger that their domestically controlled counterparts. This has to do with the difference in productivity. The EU-based foreign controlled enterprises are almost six times bigger. However, the fact that, on average, foreign controlled enterprises are bigger than the domestically controlled ones is not necessarily an indicator that higher productivity and business performance are caused by foreign control as such. It is a universal structural phenomenon witnessed in other countries, too. The reasons are as follows:

1. Domestic entrepreneurs dominate everywhere when it comes to the microenterprise sector: foreign owners rarely enter the market of another country in order to become microentrepreneurs.
2. Entering new market means higher fixed costs for starting a business on a new location. Such business strategies are selected by foreign entrepreneurs who perceive business growth and development based on new investment as a primary business idea – more important than bare survival of their businesses or maximization of short-term profit.[3] But this does not mean that domestically controlled enterprises with equal characteristics cannot be found in the market.
3. The business strategy described under (2) is a choice of international companies with more capital, technology, and managerial and other skills. In addition to being better prepared for investments, such companies provide transfer of knowledge and access to foreign markets. This creates more room for a company's growth and development by means of internationalization and orientation to export. But, again, this does not mean that domestically controlled enterprises with such characteristics do not exist.

Only by comparing similar domestically-owned and foreign-owned enterprises will we be able to tell if the origin of enterprise ownership has any effect on business performance.

International comparison of business sector internationalization

Contrary to the widespread opinion about very open and internationalized nature of Croatia's economy and a resulting weakness of domestic owners, Croatia is not a special case. The methodologically homogenous data of Eurostat enable international comparisons for 2019 or 2020.[4] The comparisons show three general results which are to be explained further in the text: (1) The degree of internationalization of the corporate sector is very high everywhere but in Greece and the largest countries; (2) It is particularly high in the countries with small or medium populations; (3) On average, Croatia is lagging behind similar countries when it comes to the corporate sector internationalization process.

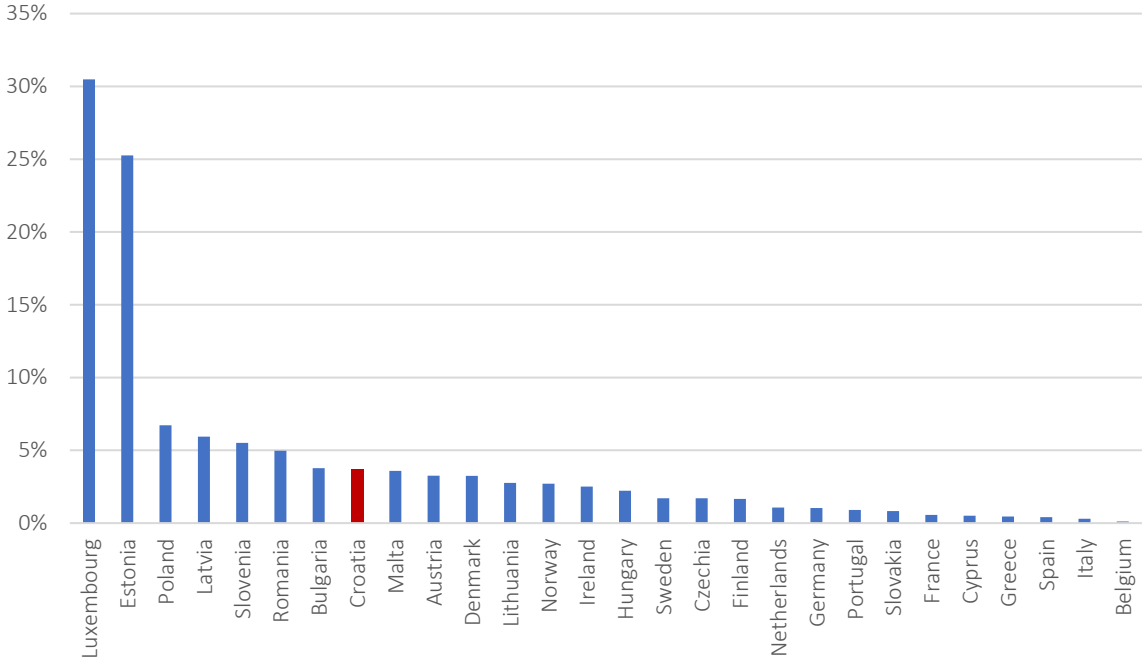
1. With its foreign controlled enterprises accounting for 3.7 percent of the overall number of enterprises registered in 2019, Croatia ranks in the upper half of the European chart, but it still lags

[3] Bare business survival is mentioned here because of "entrepreneurship out of necessity", rather common among domestic entrepreneurs. GEM (Global Entrepreneurship Monitor) research makes difference between opportunity entrepreneurship and necessity entrepreneurship (the latter one is not found in foreign controlled enterprises). Motivational index measures the relationship between these two motives: the higher the index, the larger the number of opportunity-based business ventures compared to necessity-based entrepreneurships. In the EU, the highest motivational index is recorded in Sweden (4.5 times more opportunity-based entrepreneurships than the necessity-based ones), and the lowest in Poland (1.1). As for Croatia, it ranks close to the bottom of the list of European countries with its index value of 1.7 for 2022 (Global Entrepreneurship Monitor Croatia, 2023: Što Hrvatsku čini (ne)poduzetničkom zemljom? CEPOR).

[4] Eurostat provides data until 2020. However, as the pandemic-induced lockdown could have caused economic anomalies, we used the data for the pre-pandemic 2019. (Eurostat Online data code: FATS_G1A_08)

behind the leading European countries (Luxembourg and Estonia) and other post-socialist countries which have attracted significant foreign direct investment over the past decades (Poland, Latvia, Slovenia, Romania, Bulgaria).[5] Croatia's ranking is in the neighborhood of developed European countries that can be considered small and open (Malta, Austria, Denmark, Lithuania, Norway and Ireland). Poland is the only larger EU country placed at the top of the list; other populous member-states are placed closer to the bottom, on the righthand side of the chart below. This is due to the mere mechanism of high populations: a rather higher share of microenterprises, dominated by domestically controlled ones, is connected with population size. In other words, it is statistically less likely that foreign owned companies will have a significant share in the economic structure of a populous country.

Figure I-4 Share of foreign controlled enterprises in total number in 2019



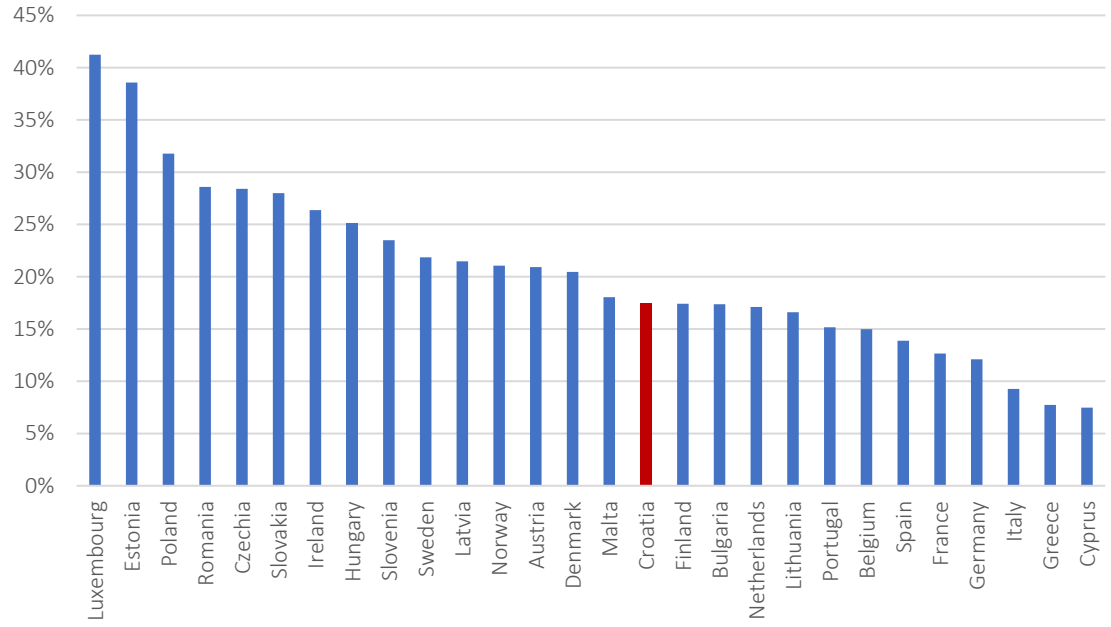
Source: Eurostat

2. The employees in foreign controlled enterprises accounted for 17.4 percent of the total corporate sector employment in Croatia in 2019. Based on this criterion, Croatia was somewhere around the European average, but it still lagged behind the Central and Eastern European countries (except Bulgaria and Lithuania). It also lagged behind some of the developed small and medium European countries with growth based on open economy (Ireland, Sweden, Austria and Denmark). This is why there is still substantial room in Croatia for increasing the share of employees in foreign controlled enterprises. But this cannot be automatically deduced from the fact that there is a negative connection between population size and the share shown in Figure I-5.[6] Besides size and development level, we should also take into account the managerial skills, access

[5] Interestingly, Slovakia is lagging behind Croatia in the number of foreign controlled enterprises, despite the fact that it has attracted substantial direct foreign investment. This is a result of large individual investments in a single industry (automotive).
[6] The linear correlation coefficient is -0.36.

to capital, policies, and typical knowledge-and-experience-based behavior of domestic owners. Their behavior can differ from that of foreign owners and, as such, can limit the growth of domestically controlled enterprises when compared to the growth of foreign controlled ones. Generally, the higher domestic limitations, the bigger the contribution of the corporate sector internationalization to a country's growth and development.

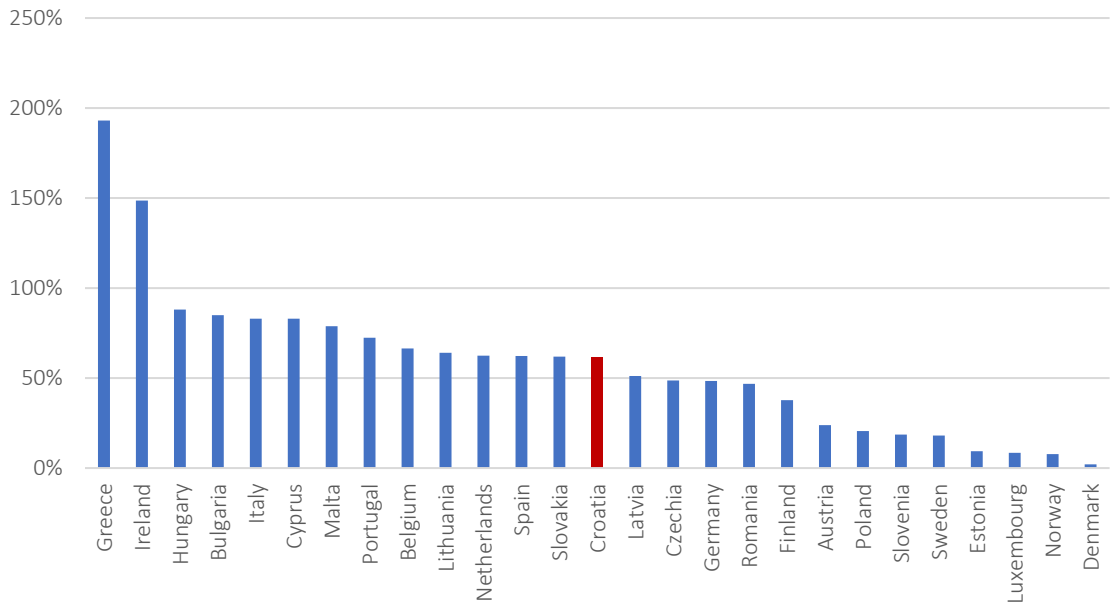
Figure I-5 Share of employees in foreign controlled companies in total corporate sector employment in 2019



Source: Eurostat

3. In all the countries observed, foreign controlled enterprises are more productive than the domestically controlled ones (Figure I-6). These differences span a wide range: from minor differences in Norway (due to high productivity of the domestically controlled oil-and-gas industry) and Denmark (due to a large number of domestically owned international companies doing business in a very productive economy) to substantial differences in Greece and Ireland. With its productivity difference of 61.4 percent in 2019, Croatia is ranked in the middle of the European chart. As regards production, it should be kept in mind that, on average, foreign controlled enterprises are bigger everywhere, which means it is easier for them to reach economies of scale. In terms of the number of employees, the general average size of an EU company is 6.1 – the same as the Croatian average for 2019. But the average size of a foreign-owned EU company is 80 employees – approx. three times more than the average size of a foreign-owned company in Croatia. We will return to the subject of the size of foreign-controlled enterprises later in this analysis.

Figure I-6 Gross value added per employee in foreign controlled enterprises vs. gross value added per employee in domestically controlled companies in 2019



Source: Eurostat

Trends and changes

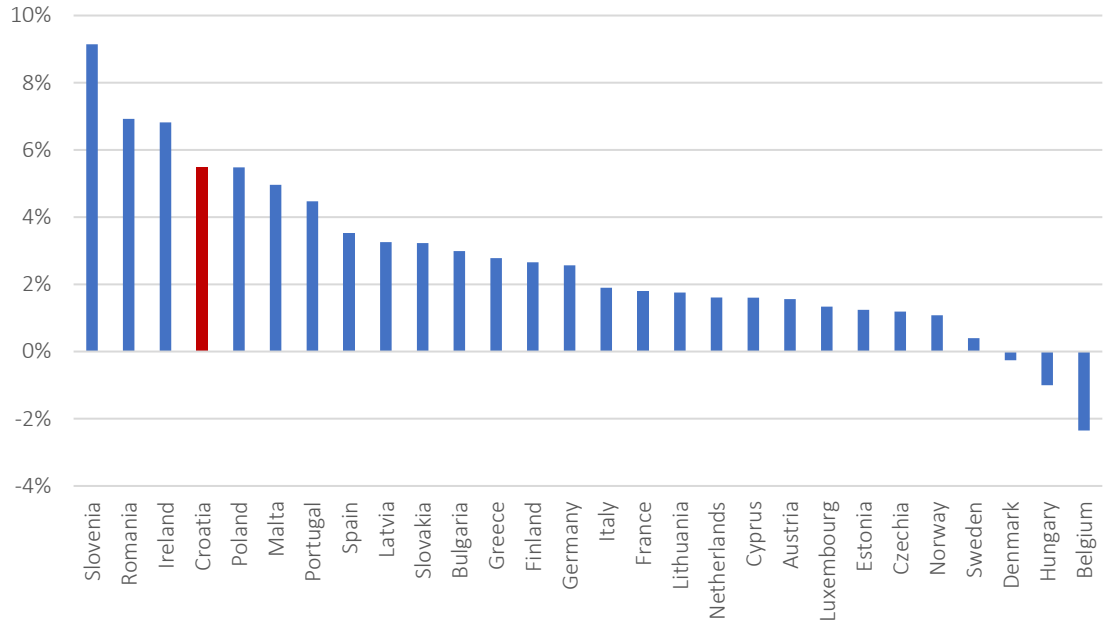
The results shown here put an end to the prejudice that there are structural differences between the allegedly powerful, sovereign, large and developed economies on the one hand and the allegedly powerless, small and open countries allegedly incapable of practicing economic sovereignty and therefore "selling family heirlooms" on the other. Even in the largest European economies such as Germany, France and Italy, the share of employees working in foreign controlled enterprises is 10–12 percent; however, the high population size naturally limits this share. In small and medium countries, this share is on average higher that in more populous countries (with the exception of Greece and Cyprus).[7] Croatia's share of 17.4 percent recorded in 2019 (or 21 percent in 2021, according to the latest reports) is not considered to be high; on the contrary, it lags behind the average share recorded in successful countries of a similar size. On average, smaller, open and very developed countries such as Malta and Netherlands have very high shares of foreign controlled enterprises given their populations.

Still, the share of workforce employed in foreign controlled enterprises in Croatia is growing. The question arises is there a process of enterprise internationalization going on in the country – a process that began in 2015, after Croatia's accession to the EU and its recovery from the long recession (2009–2014)? This could partly explain the rather high GDP and employee growth rates that the country has recorded since 2015, particularly in the past three years following the end of the pandemic lockdown.

[7] The main reasons can be the geographical distance from Europe's biggest corporate hubs and economic structure.

The Eurostat data for the 2011–2020 period (Figure I-7) indicate that internationalization of the corporate sector in Europe went on at a quick pace in the past decade. Only Belgium and Hungary recorded a decrease in the share of employment in foreign controlled enterprises. In Denmark and Sweden, this share did not change substantially, which can be explained not only by local specificities but also by the already achieved high levels of internationalization of their corporate sectors. Back in 2011, the share of employees in foreign controlled enterprises was 18% in Belgium, 26% in Hungary, 21% in Denmark and 22% in Sweden. In Croatia, it was 11.5%. In all other countries, the enterprise internationalization process took place at a fast rate. In this department, the European champion of speed for the period from 2011 to 2020 was Slovenia. This neighboring country largely modernized its economic structure and recorded a solid economic growth after dealing with the problems in the banking sector that had stifled its growth early in the 2010s. Romania, too, is a well-known example of a country that, owing to the internationalization process, has managed to achieve the fastest economic growth in Europe in the past years. The same can be said for Ireland, which managed to do it while at a higher stage of development, owing to internationalization in its modern industries (ICT, pharmaceutical industry) and its stimulating tax framework. Somewhat surprisingly, based on the rate of the enterprise internationalization process, these countries were flanked by Croatia in the past decade. However, in Croatia's case, this increase in the share of employees in foreign controlled enterprises by almost six percentage points (from 11.5% in 2011 to 17.0% in 2020) should be interpreted as a result of the country's late EU accession and equally late beginning of a faster corporate sector internationalization process. Only after the EU accession did this process pick up speed compared to its low initial value in 2011.

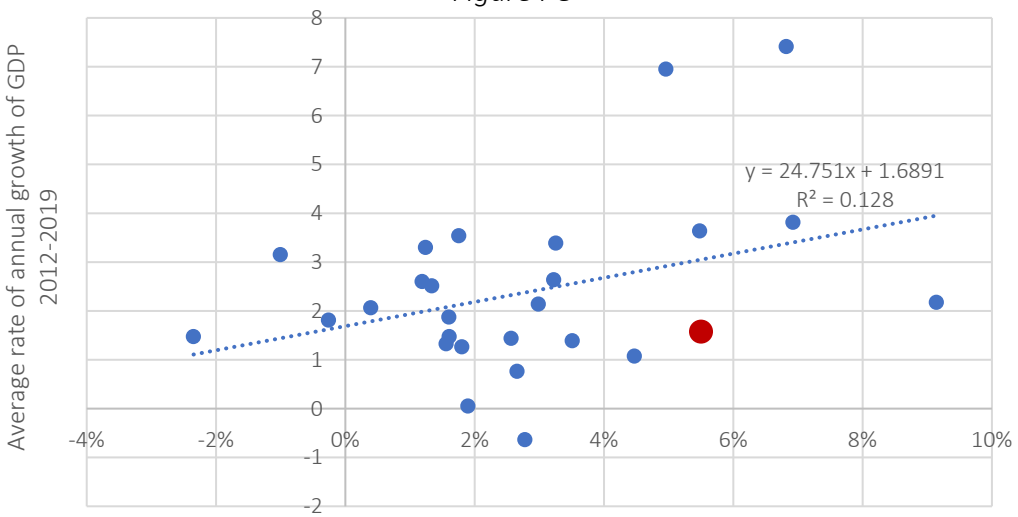
Figure I-7 Share of employees in foreign controlled companies, change from 2011 to 2020 in percentage points



Note: As date for Greece for 2011 is not available, the change in 2012 is shown. As the data for France for 2020 is missing, the last reported data – the one for 2019 – was used.
Source: Eurostat, own calculations

Figure I-7 can be interpreted as an indication of positive relation between enterprise internationalization and productivity on the one hand and economic growth on the other. The enterprise internationalization process creates a structural base for productivity and export growth in EU's single market. In Croatia, this was manifested in two sub-periods characterized by strong contribution of export to the economic recovery: at the end of the long recession of 2009–2014 and during the post-pandemic recovery. The former sub-period was followed by a recovery period from 2015–2019 and the latter one was characterized by one of the highest economic growth rates in European Union. Also, there is a positive relation between the internationalization rate (data from the preceding figure is shown on the x-axis in Figure I-8) and the average annual growth rate of real GDP (data on the y-axis in Figure I-8). Every country is represented by a dot and Croatia is represented by a red circle.

Figure I-8



Rate of growth of no. of employees in foreign controlled companies

Source: Eurostat, own calculations

The relation shown in Figure I-8 is weak because GDP growth is influenced by many other factors that cause dispersion of data around the line and Croatia's departure below the line. The level of economic development can be one such factor. Generally, the more developed a country, the less likely a fast economic growth. The opposite holds, too: for the countries beginning at lower levels of development (like Romania), growing (converging) is easier when they join forces with developed countries. Scholars call this phenomenon "beta-convergence". Another relevant factor is the length of the Great Recession that began in 2009. In Croatia, it was exceptionally long – which explains the country's position below the regression line in the above picture. The regression analysis the result of which can be seen in Box 1 confirms that the corporate sector internationalization growth has a long-term positive effect on economic growth after other effects on GDP have also been taken into account.

The mechanism of the effects on growth is well-known: the internationalized part of the corporate sector, which is usually more open and export-oriented, has fewer problems in finding finances for growth and fewer problems with excessive debts and excessive orientation to domestic market. It is easier for such companies to deal with the problems that the domestically oriented companies often face after lengthy periods of artificially created expansions of domestic markets that lead to macroeconomic imbalances. The foreign controlled enterprises often have stronger and more resilient capital base.

Such was also the experience of Slovenia – the European champion of the internationalization process in the past decade. A dozen years ago, Slovenia underwent a large cycle of relieving the excessive debts of companies that substantially reduced their investment. It created concerns both in Slovenia and in the European Commission, because of possible technological slowdown and deceleration of growth. Despite one of the lowest investment rates in EU in the past decade, Slovenia's internationalized corporate sector grew rapidly. It also recorded a rather high economic growth with the average five-year growth rate of 3.8 percent in the period from 2015 to 2019. The share of foreign-controlled enterprise employees grew significantly in that period – from 14.2 percent to 23.4 percent. Equation 2 (Box 1) explains almost entire Slovenia's growth with deepening and expansion of the foreign-controlled enterprise sector. The country's economy started to rely more on foreign investment and export.

BOX 1: CORPORATE SECTOR INTERNATIONALIZATION AND ECONOMIC GROWTH

A comparative regression analysis was carried out on a sample of 27 EU member states. The average annual growth rate of real GDP is the dependent variable. In the first equation it is calculated for the period from 2012 to 2019 and in the second equation for the period from 2015 to 2019. The second equation assumes that it took a few years' period for the effects of the Great Recession of 2009–2014 to pass. The positive effects of the corporate sector internationalization could only be manifested after Croatia's EU accession in 2013. The independent explanatory variables are: (1) gross national income per capita at purchasing power parity (GNI); (2) achieved level of the corporate sector internationalization measured by the share of foreign-controlled enterprise employees in the total workforce (L); and (3) internationalization rate measured by the growth of L in the period from 2011 to 2020 (dL). The results suggest that the internationalization rate has a long-term relation with economic growth, particularly after passage of time (Equation 2). The independent variable is a percentage, and the growth is a figure, so the parameter value of 34 means that one percentage point of the growth of foreign-controlled enterprise employees' share in the period from 2011 to 2020 increased the average long-term growth rate for the period from 2025 to 2019 by 0.34 percentage points.

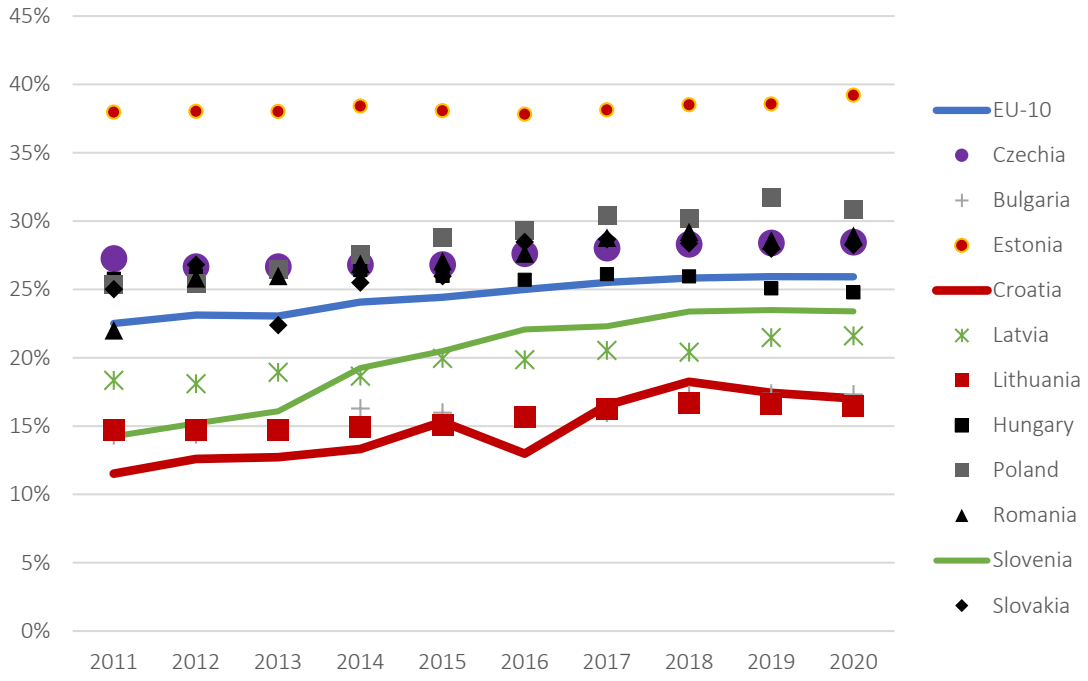
t-test in brackets	Equation 1	Equation 2
Dependent variable	Average growth rate of real GDP 2012-2019	Average growth rate of real GDP 2015-2019
Constant	-0.53	0.66
GNI	1.31E-05	1.36E-05
L	9.15	6.30
dL	22.07	34.05
N	27	27
R^2	0.34	0.30
F	4.11	3.31

The situation was rather different than before the crisis of 2009–2013, when a doctrine of antagonism towards allegedly harmful foreign investment, supported by politicians and media, prevented the initiation of any relevant wave of foreign direct investment in Slovenia. Such a view was promoted by local tycoons, who had been gaining control over a growing portion of economy together with politicians, and some ideologically motivated scholars. The developments after the 2009 failure of Slovenia's closed investment model that relied on state banks changed the country's attitude towards FDI. Almost one third of new foreign investment flowed into Slovenia's processing industry.[8]

[8] Damian, J., J. Konings, Č. Kostevc and K. Zajc Kejžar (2022): Explaining the Low Level of Investment in Slovenia. European Commission, European Economy Discussion Paper 169.

Croatia is still lagging behind Slovenia and other Central European countries when it comes to the corporate sector internationalization process. It is still at the bottom of the interval for 11 Central European countries (Figure I-9). Croatia still has a long way to go. It should therefore apply a new set of policies and measures, so that the next wave of internationalization could increase the productivity of its economy for good.

Figure I-9 Share of employment in foreign controlled companies 2011-2020



**EU-10 is the average share for the countries in the chart without Croatia*

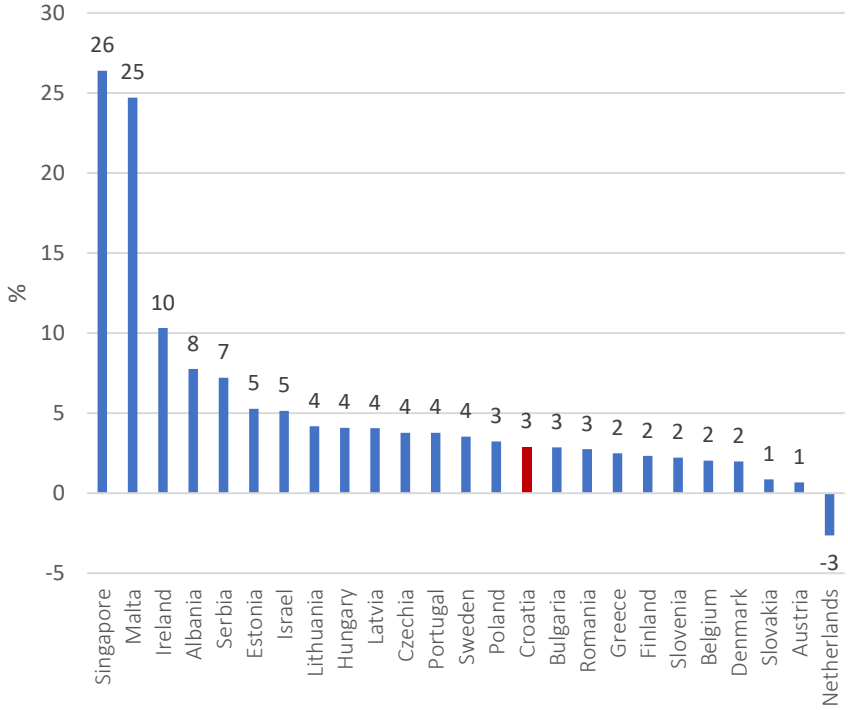
Source: Eurostat

The standard analysis of foreign direct investment leads to the same conclusion. The data in Figure I-10 represent five-year averages of the annual ratios of FDI inflow and GDP (as per UNCTAD reports).[9] The picture shows the period in which Croatian economy performed relatively successfully (2018-2022). Nevertheless, Croatia is placed in the middle of the chart, with the FDI share in its GDP being around 3 percent – yet another evidence of relatively slow corporate sector internationalization. It should be noted that two Southeast European countries – Serbia and Albania – have come very close to the three countries with the highest ratios in the chart (Singapore, Malta and Ireland) because they are undergoing an FDI/GDP ratio growth cycle. This cycle is comparable to the processes that the countries of Central and Eastern Europe underwent in the late 20th and early 21st centuries, when low taxes and relatively low labor cost were the main factors that attracted foreign investment to Eastern Europe. These factors are now at work in the non-EU countries of Southeastern Europe, but they are not applicable to Croatia anymore. Comparatively speaking, Croatia does not look like a country attractive for foreign direct investment. It is in a limbo of a sort: its costs and taxes are too high to be as attractive as the countries in the eastern parts of Central Europe were 20 years ago and as Serbia and Albania are today. Also, Croatia's

[9] The figures were calculated using the IMF's standard balance of payments methodology, which means that the "inflow" includes not only new foreign investment, but also the earnings of the existing foreign controlled enterprises.

policies and institutions crucial for attracting investment in value-added industries are not as good as the ones in developed small and open EU countries.

Figure I-10. FDI / GDP in %, avearge 2018-2022



Source: UNCTAD

FDI and export

In order to interpret the above picture correctly and explain why it includes countries like Singapore, Malta, Israel, Belgium, Denmark, Finland, Austria, Netherlands and Sweden which, despite of its size and level of development, have a higher FDI/GDP ratio than Croatia, the ratio should be observed over a longer period and not just in the context of integration and transition of the former socialist countries of Eastern Europe. True, the developmental concept of an FDI-based international integration established itself in the past three decades with the help of several widely known motivational investment stories. These stories include Volkswagen's early investment in Škoda (in March 1991), now accounting for 5 percent of Czechia's GDP and 9 percent of its exports,[10] and numerous automobile-makers' investments in Slovakia's automobile-assembling plants which turned this Central European country into the world's biggest car manufacturer per capita. But foreign investment also has its global relevance, particularly in EU. It has many developmental effects exceeding mere investment in crucial industries in Central and Eastern Europe. The only thing that many of the countries in the above picture have in common is the fact that they are not highly populated. They are in different stages of economic development. This is why the comparison of heterogeneous countries in Figure I-10 suggests that the developmental strategy based on opening and internationalization by means of FDI works not only when waves of FDI are based on relatively low cost of labor and favorable tax conditions. On the contrary, very "expensive" countries

[10] Škoda story-board: https://www.skoda-storyboard.com/en/press-releases/30-years-of-skoda-auto-in-the-volkswagen-group-a-european-economic-success-story/

such as Belgium, Denmark and Sweden also attract foreign direct investment owing to the factors like educated workforce, rule of law, efficient administration and – let us not forget – their EU membership.

In Figure I-11, the countries from Figure I-10 are divided into four groups for which five-year moving averages for the FDI/GDP ratio are shown: (1) Island Tigers – Ireland and Singapore; (2) EU-10 and Croatia; (3) "developed Europe" (Belgium, Austria, Denmark, Netherlands, Finland and Sweden, but without the biggest ones – France, Germany, Italy and Spain – because, due to the high-population, the FDIs in these countries end up "drowned" in the high GDP values typical of big countries); and (4) Israel, which is a story for itself for obvious geographic and historical reasons. Three relevant results are shown in the picture:

1. Island Tigers are the world champions in attracting foreign direct investment and their continuous highest FDI/GDP ratios are several times higher than the ones of other countries.[11]
2. Developed Europe[12] had development stages when its annual indicator of FDI inflow was 3 percent of GDP (1998-2012); indeed, in the period from 1998 to 2005, FDI was more important in these countries than in EU-10. This is an indication of the universal importance of FDI for small and medium countries with open economies, regardless of the structure of their economy, history and level of development.
3. In terms of relevance of FDI, Croatia continuously lagged behind the comparable countries. The decrease and lagging behind is particularly visible after 2009 and – in particular – between 2013 and 2020. Israel, for example, underwent a cycle of growth of FDI relevance at that time. The recent growth of indicators in Croatia does not deserve particular attention because it was induced by the growth of earnings of the existing foreign controlled enterprises in retail and banking. Even with this growth, Croatia is still placed at the bottom of the chart.

The relation between FDI and export was a universal model of transformation of Central and Eastern European economies in the past thirty years, but it also exists on the higher levels of economic development. Figure I-12 shows that the Island Tigers – Ireland and Singapore – lead in both of these ratios. Their export of goods and services has reached the remarkably high 160 percent of the GDP value. In this context, EU-10 and Developed Europe are also recording constant growth of the already rather high export-orientation indicators. In terms of export of goods and services as a percentage of GDP, Croatia is lagging behind both of these groups for 10–20 percentage points. Still, Croatia's export ratio began to grow after the country's EU accession and recovery from the protracted 2009–2014 crisis. This indicates that there is an embryo in the Croatian economic structure that could support a similar development based on the joint work of foreign investment, export and economic growth.

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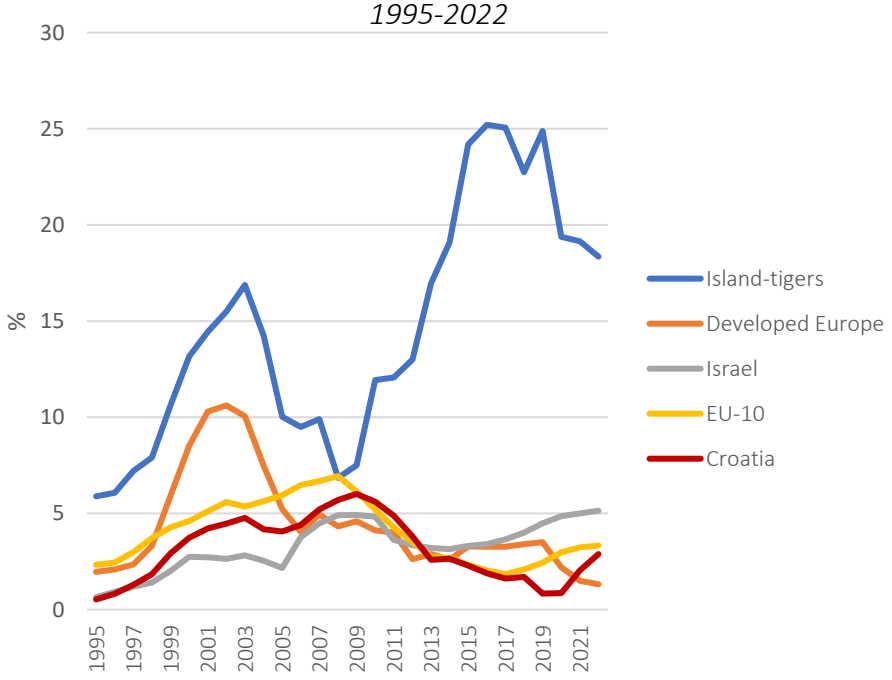
[11] It should be noted here that only the "Island Tigers" of relevant size were selected for this picture (Ireland: 5.1 million people; Singapore: 6 million people). Numerous small island states, such as Seychelles or Palau, do belong to the group where foreign investment is of great importance, but their developmental characteristics make them unsuitable for comparisons with Croatia.

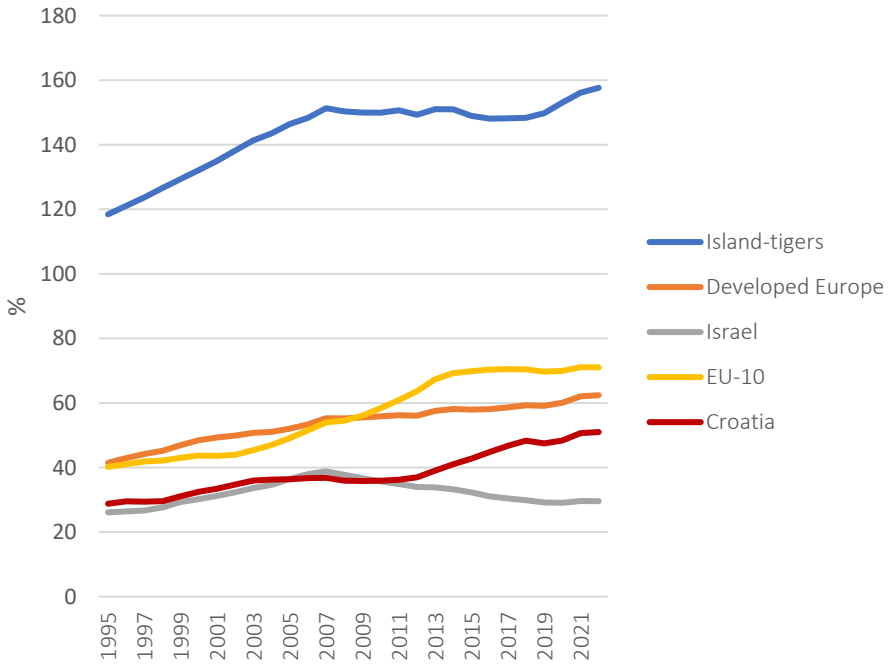
[12] Germany, France, Italy and Spain are not included in this group. The biggest country in the group is Netherlands (with a population of 17.6 million) and the smallest one is Denmark (5.9 million).

Figure I-11. FDI / GDP in %, 5-year moving averages 1995-2022



Source: UNCTAD, own calculations

Figure I-12 Exports of goods and services in % of GDP, 5-year moving averages 1995-2022



Source: UNCTAD, own calculations

Israel, relatively high-ranked in Figure I-11 and relatively low-ranked in Figure I-12, is a particularly interesting investment story. Its 30+ percent ratio of export and GDP should be interpreted in the context of its hostile environs that prevent the development of regional trade in the Middle East. Geography (the vicinity of trading partners), language and compatibility of regulations and institutions are the key moving forces of international trade. The lack of regional trade means that exports to overseas destinations account for more than 30 percent of Israel's GDP. The country's main trading partners are the U.S., India, Ireland, United Kingdom and Brazil. This is a huge success in exports, for no other comparable country boasts more than 30 percent of its GDP coming from exporting overseas. For example, Croatia's most important trading partners include Germany, Italy, Slovenia, Hungary and Bosnia-Herzegovina, and Slovenia's most important trading partners are Germany, Italy, Switzerland, and Croatia. Clearly, we in European Union have problems in surmounting geographical barriers.

Internationalization of the business sector and foreign direct investment deserve credit for most of Israel's success in exporting to overseas countries. American companies alone have opened 200 out of approx. 300 R&D centers in various industries in Israel, thanks to very educated workforce and a stimulating business and entrepreneurial environment with a dynamic startup scene. Also, the export of services is very important because it is easier for services such as IT to cover great distances. Israel's export of services reached USD 86 billion (around 20% of GDP) in 2022. This is almost equal to Croatia's GDP. IT and business services account for most of this export.[13] Israel's story can be both a role model and a motivation for initiating new investment stories.

Average size of foreign controlled enterprises

As a result of the corporate sector internationalization process, foreign controlled enterprises in different countries are of different sizes. The wide range that these differences span is not easy to explain: from 11 employees in an average foreign controlled enterprise in Luxembourg and 19 in Slovenia to 300 in Poland and 572 in Belgium (the latest available data: 2020). The average number of 29 employees per foreign controlled enterprise in Croatia in 2020 was higher not just than in Luxembourg and Slovenia, but also in Lithuania (28), Bulgaria (27), Malta (27) and Latvia (21).

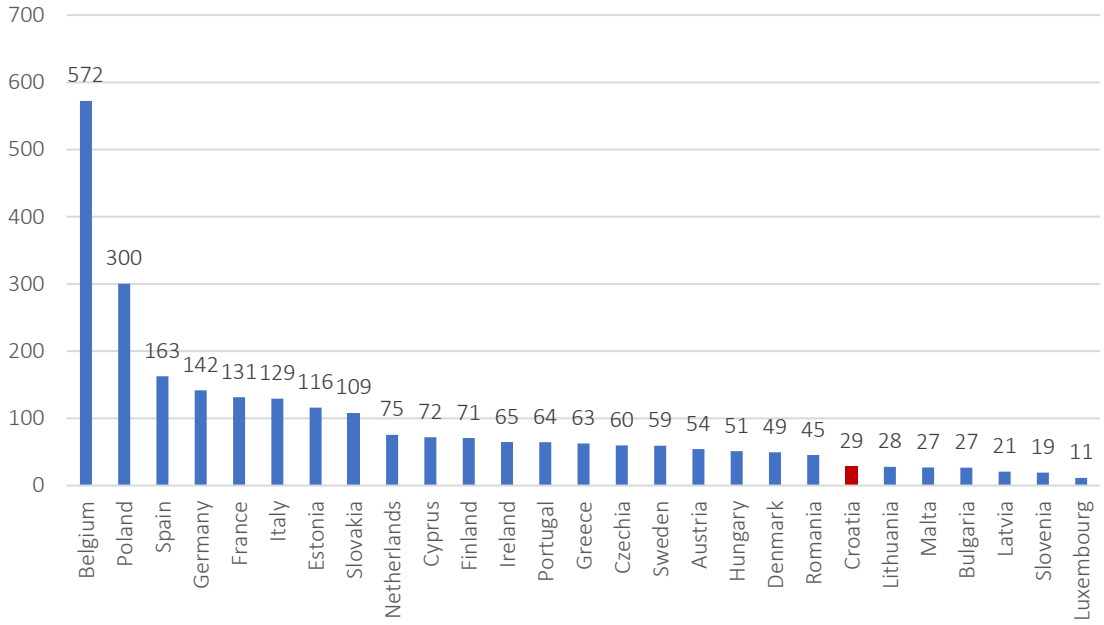
There is a positive relationship between the average size of foreign controlled enterprises in a country and the size of its population.[14] However, due to specific factors, there are substantial departures in some countries. For example, Slovakia and Estonia have very large foreign controlled enterprises compared to their small populations. Even the Polish average of 300 employees is a rather high figure, because Poland has a smaller population than Germany, France and Italy, where the average size of foreign controlled enterprises is smaller. The Polish case can be explained with the openness and high growth rate of its large market (Poland has a population of 38 million). This large domestic market attracted foreign companies; they entered Poland at the beginning of a long period of its fast economic growth 20–25 years ago. On the other hand, the size and growth of the domestic market have never really been important for smaller countries. This also applies to Slovakia and Estonia, where the size of foreign controlled enterprises can be explained with the radical and timely opening to foreign investment that

[13] US Department of State, Bureau of Business and Economic Affairs. Israel has the Encouragement of Capital Investment Law that exempts companies with investment projects of public interest from the universal profit tax rate of 23 percent.

[14] The linear correlation coefficient linking the average company size with the size of the population is 0.30. At the same time, the coefficient linking the company size with the gross national income per capita per purchasing power parity is 0.07, which is statistically insignificant.

helped establish companies oriented to exporting to the greater European market. Well-known here is the already mentioned case of Slovakia's automobile industry.

Figure I-13 Average no. of employees in foreign controlled companies in 2020



Source: Eurostat, own calculations

If we cross the limits of Central and Eastern Europe, we will notice that not even Belgian market (some 10 million people) is big enough to be attractive as such. The fact that they are European record holders in size of foreign controlled enterprises (with 572 employees on average) can be explained with the vicinity of the seats of European institutions (large companies in regulated industries tend to locate their head offices close to centers of power, where regulations are decided upon) and the vicinity of Antwerp and its port. These are the key factors of Belgium's attractiveness for investments despite high taxes and not-so-efficient administration.[15] Thus, Belgium houses the head European offices of Pfizer, Janssen, Toyota Motor Europe and ExxonMobile. Also, some leading German companies, including BASF, have their large-scale operations in Antwerp, which has a competitive international port – a leading EU port by some indicators.[16] On the other hand, some of the most competitive small countries, such as Denmark (49), Austria (54), Sweden (59), Czechia (60), Ireland (65) and Finland (71), do not have foreign controlled enterprises of a particularly large size.

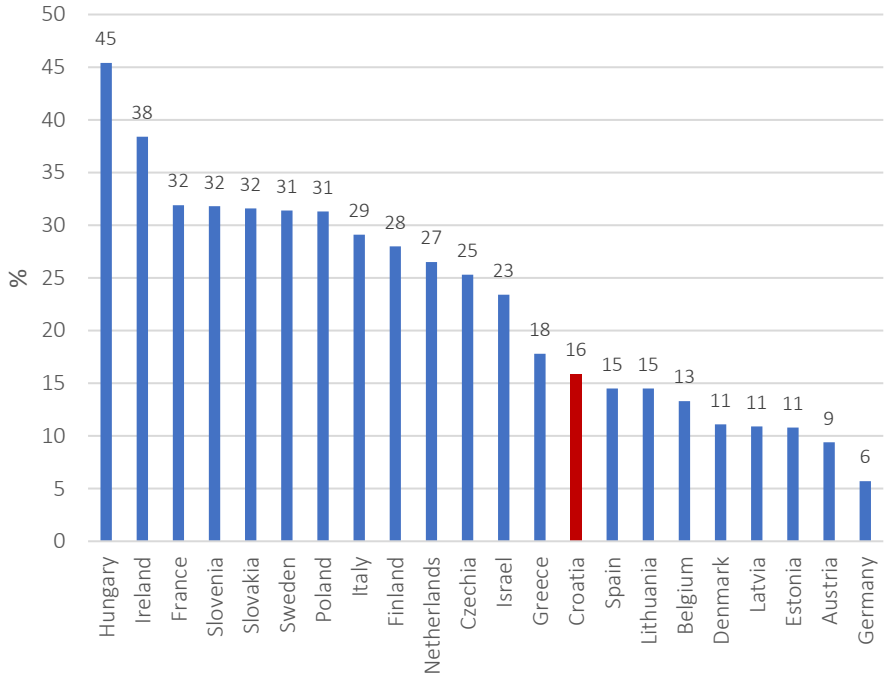
At first sight, the average size of foreign controlled enterprises cannot be linked with the sectoral structure of foreign direct investment either (Figure I-14). There is a hypothesis that the average company size is linked with the share of foreign direct investment in the processing industry. But then again, Belgium – as the European leader in this department – has a small share of industry FDI (only 13.3 percent)

[15] Belgium is among rather low-ranking EU member states in the latest edition of the World Bank's *Doing Business* report.

[16] https://www.hithorizons.com/eu/analyses/country-statistics/belgium

and many small and open European economies with high shares of industry FDI have, on average, smaller foreign controlled enterprises (Slovenia, Hungary, Sweden). Foreign investments in the service sector are dominant everywhere and many countries have their own specific stories. Generally, the smaller a country, the more specific its story. For example, Lithuania and Estonia have internationalized their economies through their service sectors – ICT in particular. Industry investments were more important in Central Europe. Slovenia is an example of a late model of such internationalization: it was carried out without particular cost advantages that had been crucial for the early internationalization and industrial modernisation headed by automobile industry, primarily in Hungary and Slovakia.

Figure I-14. Cumulative share of inward FDI in industry



**Based on the latest available data from OECD database (oecd-library) for all countries except Croatia, for which calculations were made based on HNB data, Table U6.*

Source: OECD, HNB

Role of relevant foreign controlled enterprises in the past few years

Figure I-14 shows that Croatia, with its current cumulative share of industrial FDI of approx. 16 percent, is lagging behind Central Europe. Foreign direct investment in the service sector is still predominant. The sum of the cumulative shares of FDI in the finance, trade, telecommunications and real estate sectors in Croatia is 58 percent. However, this structure originates from the turn of the century. In 2010, the cumulative share of these sectors in FDI was 62 percent, which means that the concentration in the service sector has decreased in the past decade. This is why, further in the text, we analyze in detail the period between 2018 and 2022, which saw Croatia's significant economic growth. In the period preceding this one, a new cycle of the capillary expansion of foreign controlled enterprises had begun.

The analysis is based on the data from the annual financial reports submitted by companies to FINA. The methodology used here differs from the CBS methodology used in the first part of the analysis:

1. As the Eurostat (Croatian Bureau of Statistics) methodology counts small business and self-employed among enterprises (entrepreneurs), their number (200,000+) is bigger than the one in FINA database (approx. 154,000 in 2022), which is based on entrepreneurs' annual financial reports.
2. The Eurostat (CBS) methodology counts in all entrepreneurs and FINA database enables segmentation of companies by their size (income).
3. While the Eurostat (CBS) methodology criterion rests on identifying the first foreign majority owner,[17] FINA's database uses the characteristic (variable) of the percentages of domestic and foreign ownership which enables identification of the three foreign ownership groups that we will be using further in the text:[18]
    a. Croatian companies with a foreign-ownership component, regardless of its relative size (foreign owners' share >0%)
    b. Croatian companies with a majority foreign-ownership component (foreign owners' share > 50%)
    c. Croatian companies with an exclusive foreign-ownership component (foreign owners' share = 100%).

The biggest segment – microenterprises – is excluded from the rest of the analysis because it does not include any relevant share of foreign controlled enterprises. The differences in size, productivity and other corporate behaviors arising from inclusion of microenterprises in the sample would be a result of a selection bias and not of real differences in corporate behavior. This is why we arbitrarily selected the annual revenue of one million euros in 2022 as a threshold above which "serious" or relevant enterprises (both domestically and foreign controlled ones) operate. The words "serious" and "relevant" are used here in the context of expectations that the enterprises of above-average size require significant capital, organization, technologies, managerial skills, and teamwork, regardless of the origin of their ownership. Instead of using the term "serious enterprises", further in the text we will call them "major enterprises with a revenue of not less than one million euros in 2022" or "relevant (major) enterprises."

In 2022, there were 12,721 enterprises in Croatia meeting the selected revenue criterion. The total sales revenue of these enterprises in 2022 was EUR 120.3 billion. The companies exceeding the EUR 1 million-

[17] See n. 1.

[18] A full application of the Eurostat methodology would require identification of the ultimate dominant owner (ultimate controlling institutional unit). However, due to its limited data-collection capacity, the CBS still conducts identification based on the first visible institutional owner. Thus, a company owned by a foreign company owned by a domestic entity will be classified as having a foreign owner, despite the ultimate domestic control. This adds confusion to the analysis of the ownership residency. However, it means that both the CBS and FINA statistics share the same problem of identifying residency of the ultimate owner. Although the most important cases of circular domestic ownership through foreign ownership are well-known (Agrokor in the past, Fortenova Group today) – which casts doubt on the accuracy of the results and of the conclusions derived from them – it is logical to assume that the impact of international structuring of the ultimate domestic ownership on the high numbers presented in the analysis will have no relevant effects on the results and conclusions. In any case, this assumption should be verified by some future analysis when statistical preconditions are met (in terms of accuracy of the source of the data for the ultimate controlling institutional unit (UCI, see n. 1).

revenue threshold had a total of 676,517 employees, which means that the average-size company in the sample had 53 employees and EUR 9.5 million of sales revenue. The selected company sample accounts for 8.3 percent of the total number of entrepreneurs listed in FINA's database for 2022 (the total number being 153,787 before consolidation). In other words, the relevant enterprises employed 67.5 percent of the total number of employees working in the corporate sector according to FINA (the total number of employees in the companies submitting financial reports to FINA was 1,002,771). These enterprises accounted for 86 percent of the total revenue achieved in the corporate sector and 94.5 percent of sales revenue recorded in foreign markets in 2022. Clearly, this is the largest and most productive segment of the corporate sector – the one responsible for almost entire export of goods.

In 2022, the sample of large enterprises with revenues above one million euros included 2,226 enterprises (17.5 percent of the overall sample) with a foreign ownership component higher than zero. Of these, 2,054 enterprises (16.2 percent of all the enterprises in the sample) had a foreign ownership component higher than 50 percent and 1,812 enterprises (14.2 percent of all the enterprises in the sample) had a foreign ownership component of 100 percent. In 2022, these 2,226 enterprises had 181,838 employees, or 26.9 percent of the total number of employees in large-enterprise sample (it is approx. 18 percent of the total number of employees when small enterprises with revenues below one million euros are included). This shows that, on average, foreign controlled enterprises in the large-enterprise sample are also bigger: with an average of around 82 employees per company, their size exceeds the indicator for the whole sample (approx. 53 employees per company) by 53.6 percent.

Interestingly, the average size of enterprises slightly decreases as the foreign ownership share in them grows. It drops from 82 to approx. 73 on average in companies with more than 50 percent of foreign ownership and to approx. 71 on average in companies with foreign ownership of 100 percent. One of the main reasons for this is the presence of INA d.d. in the up-to-50% segment. Regardless of INA, if the criterion of the number of employees is applied, the companies with foreign ownership above 50 percent are, on average, much bigger than the overall average company size in the entire sample of Croatian companies.

The difference is even bigger if the company size is measured by sales revenue. On average, foreign owned companies achieved sales revenues of EUR 21.3 million. Based on this criterion, they exceeded the average company size in the overall sample by 117 percent (compared to the earlier mentioned EUR 9.5 million per company). If only the companies with 50 and more percent of foreign ownership are observed, the average size is EUR 18.6 million – still approximately twice the size of the overall sample of large enterprises. Hence the substantial difference in sales revenue per employee.

The value added was roughly estimated using the difference between sales revenue and material expenses. Compared to the overall sample of large enterprises, the value added per company is 110 percent higher in companies with a foreign ownership component (EUR 4.9 million compared to EUR 2.3 million) and the value added per employee is 37 percent higher.

The substantial difference in productivity is translated into a substantial difference in net wages. In 2022, large Croatian companies recorded a net wage of EUR 1,016. For the companies with foreign ownership in the large-enterprise sample, the average is approx. 50 percent higher. The large companies with a foreign ownership component also invest more: investment per company (EUR 717,400) is 126 percent higher than the investment per all large companies in the sample. If only the companies with 50 or more percent of foreign ownership are observed (approx. EUR 539,000 per company), the difference is a bit smaller, but still substantial 70 percent.

Table I-1. Indicators for the sample of 12,721 enterprises with revenue in 2022 exceeding EUR 1,000,000: the role of foreign controlled enterprises.

Indicator	Total sample of large (relevant) enterprises	Foreign ownership > 0%	Foreign ownership > 50%	Foreign ownership = 100%
Number of companies	12,721	2,226	2,054	1,812
Share of companies in sample	100%	17.5%	16.2%	14.2%
Number of employees	676,517	181,838	150,430	129,192
Share of employees in sample	100%	26.9%	22.2%	19.1%
Employees per company	53.2	81.7	73.2	71.3
Sales revenue (in € M)	120,245	47,321	38,155	34,149
Share of sales revenue in sample	100%	39,4%	31,7%	28,4%
Sales revenue per company (in € M)	9.8	21.3	18.6	18.9
Sales revenue per employee (in € 000)	178	260	254	264
Value added (in € M)	29,540	10,842	8,582	6,991
Share of value added in sample	100%	36.7%	29.1%	23.7%
Value added per company (in € M)	2.3	4.9	4.2	3.9
Value added per employee (in €)	43,665	59,625	57,050	54,116
Average* net wage (in €)	1,016	1,525	1,557	1,600
Export** (in € M)	33,079	17,393	14,237	12,873
Share of export in sample	100%	52.6%	43.0%	38.9%
Export per company (in € M)	2.6	7.8	6.9	7.1
Investment*** (in € M)	4,043	1,597	1,107	918
Share of investment in sample	100%	39.5%	27.4%	22.7%
Investment per company (in € 000)	318	717	539	507
Gross return on capital****	13.0%	17.2%	17.0%	17.4%

*Simple average for the companies in the sample and sub-samples.

**Not the statistical concept of export; it is sales revenues from foreign markets.

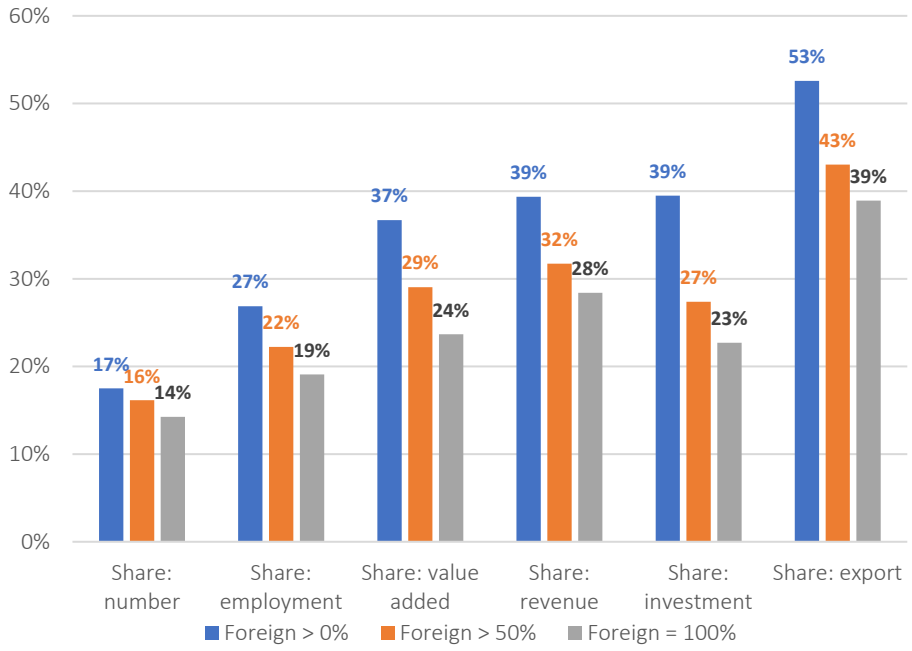
***Gross investment in new fixed assets only.

****Profit-and-loss sum in current year for companies in the sample divided by average of capital and reserves at the end of current year and in the preceding year.

Source: FINA, own calculations

The difference to the advantage of foreign controlled enterprises is the highest when sales revenue made in foreign markets are observed. For foreign controlled enterprises, this indicator is 201 percent higher than for the overall sample of large enterprises when the criterion of the average value of foreign sales revenue per company is applied. After all, it is no surprise that foreign controlled enterprises are more profitable. Gross return on capital was around 17 percent, compared to the average of 13 percent for the overall sample of large Croatian enterprises.

Figure I-15 Share of foreign controlled enterprises in the sample of enterprises with revenue > € 1M in 2022



Source: FINA, own calculations

The result is shown in a nut-shell in Figure I-15: 17.5 percent of large Croatian enterprises with a revenue exceeding one million euros have a foreign ownership component. These enterprises accounted for 26.9 percent of all the employees in the large-enterprise sector. They also accounted for 36.7 percent of the value added, 39.4 percent of the sales revenues, 39.5 percent of the gross investment in new fixed assets, and 52.6 percent of the foreign sales revenues recorded by large, relevant Croatian enterprises included in the sample. As our enterprise sample accounts for by far the biggest portion of the corporate sector (approx. 86 percent of revenue and 95 percent of revenue in foreign markets of all the enterprises), this analysis has shown that foreign controlled enterprises have a crucial role in the dynamics of the entire Croatian economy – exports in particular.

The following table replicates the indicators from the table for 2022, based on the 2018 data. The purpose of the comparison of 2018 and 2022 is to identify the differences that appeared in this five-year period, which was quite successful for Croatia's economy.

Table I-2. Indicators for the sample of 11,519 companies with revenue in 2022 exceeding EUR 1,000,000, that were also doing business in 2018: the role of foreign controlled enterprises.

Indicator	Total sample of large enterprises	Foreign ownership > 0%	Foreign ownership > 50%	Foreign ownership = 100%
Number of companies	11,519	1,883	1,717	1,484
Share of companies in sample	100%	16.3%	14.9%	12.9%
Number of employees	588,419	157,367	123,286	100,377
Share of employees in sample	100%	26.7%	21.0%	17.1%
Employees per company	51.1	83.6	71.8	67.6
Sales revenue (in € M)	70,922	27,733	21,415	18,527
Share of sales revenue in sample	100%	39.1%	30.2%	26.1%
Sales revenue per company (in € M)	6.2	14.7	12.5	12.5
Sales revenue per employee (in € 000)	121	176	174	185
Value added (in € M)	19,447	7,295	5,682	4,440
Share of value added in sample	100%	37.5%	29.2%	22.8%
Value added per company (in € M)	1.7	3.9	3.3	3.0
Value added per employee (in €)	33,049	46,357	46,091	44,231
Average* net wage (in €)	847	1,311	1,348	1,400
Export** (in € M)	16,988	8,703	6,311	5,413
Share of export in sample	100%	51.2%	37.2%	31.9%
Export per company (in € M)	1.4	4.6	3.7	3.7
Investment*** (in € M)	2,826	1,169	764	615
Share of investment in sample	100%	41.4%	27.0%	21.8%
Investment per company (in € 000)	245	621	445	414
Gross return on capital****	9.1%	13.2%	13.4%	15.3%

*Simple average for the companies in the sample and sub-samples.

**Not the statistical concept of export; it is sales revenues from foreign markets.

***Gross investment in new fixed assets only.

****Profit-and-loss sum in current year for companies in the sample divided by average capital and reserves at the end of current year and in the preceding year.

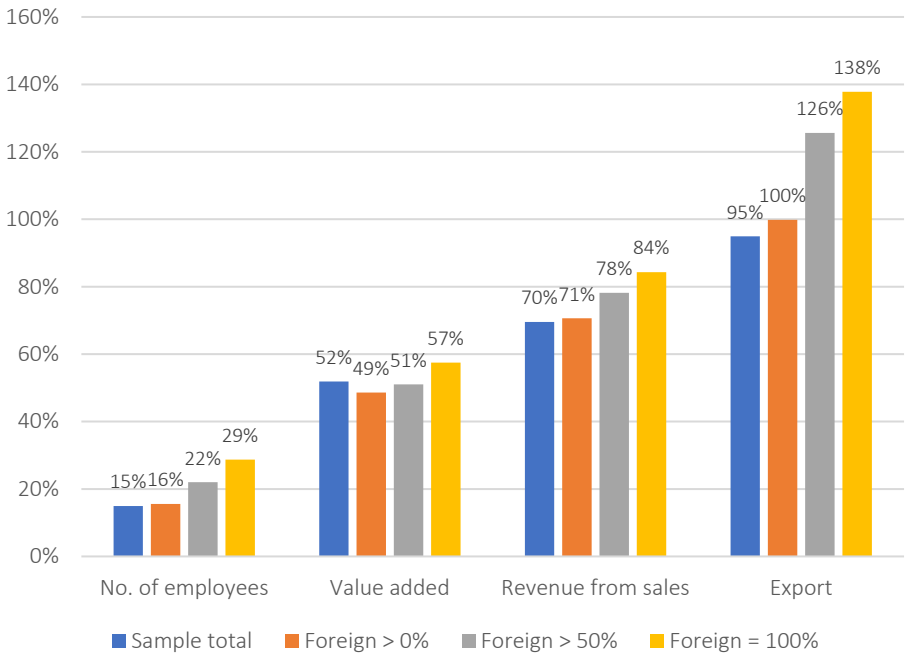
Source: FINA, own calculations

The first thing to be noticed in the table is that the share of foreign controlled enterprises in the large-enterprise sample increased by approx. 1.5 percentage points between 2018 and 2022. If we use the ">0%" criterion for defining the share of foreign controlled ownership, the share of employees in foreign controlled enterprises in the large-enterprise sample increased by 0.2 percentage points only (from 26.7 percent in 2018 to 26.9 percent in 2022). But the increase of this share was much higher in the foreign-owned subsegment ">50%" (1.2 percentage points: from 21 percent to 22.2 percent) and in the very strictly defined subsegment "=100%" (2 percentage points: from 17.1 percent in 2018 to 19.1 percent in 2022). In the past five years, the number of employees in the sample of large foreign controlled Croatian enterprises grew faster than the overall growth of the number of employees in relevant Croatian enterprises. This is why the average company size measured by the number of employees grew faster in the foreign controlled segment (with 100%-foreign ownership): while the average company size for the overall large-enterprise sample grew from 51.1 to 53.2 (4.1 percent), the average size of large enterprises in 100%-foreign ownership grew from 67.6 to 71.3 employees (5.4 percent). While the more comprehensive ">50%" subsegment recorded a somewhat slower growth (2 percent), the average company size in the most comprehensive subsegment (">0%") actually decreased.

The result indicates that large domestically controlled enterprises also recorded a substantial growth of employment between 2018 and 2022. A similar trend was visible in the sales revenue dynamics: the share of all foreign-ownership subsegments in the revenue of the relevant-enterprise sample recorded a growth. The highest was the growth of the share of revenue in the 100%-foreign-ownership subsegment (from 26.1 percent to 28.4 percent). This segment also recorded the fastest increase in the number of companies: from 1,484 in 2018 to 1,812 in 2022 (22.1 percent). In the segment defined by the ">50%" ownership criterion, the number of companies grew at a rate of 19.6 percent. At the same time, the number of companies in the entire large-enterprise sample grew much slower, from 11,519 to 12,721 (by 10.4 percent).

Accordingly, the already existing large foreign controlled enterprises keep growing (faster than the average of the relevant-enterprise sample), but new large, fast-growing foreign controlled enterprises are also emerging. This happens because of the newly established foreign controlled enterprises which soon achieve the minimum of one million euros in revenues or because of the foreign controlled enterprises which had had below-the-minimum revenues but grew rapidly after 2018 and managed to join the sample of relevant Croatian enterprises exceeding the one-million threshold. But when it comes to revenue, we should keep in mind the importance of foreign sales revenue for these enterprises. While the share of the ">0%" foreign-ownership segment in the total sales revenue made in foreign markets increased only slightly (from 51.2 percent in 2018 to 52.6 percent in 2022), the increase was much higher in the other two segments: from 37.2 percent to 43.0 percent in the ">50%" foreign-ownership segment and from 31.9 percent to 38.9 percent in the "=100%" foreign-ownership segment. The same can be seen when foreign-sales-revenue growth rates are compared. For the overall large-enterprise sample, this growth rate was 95 percent from 2018 to 2022. In the most comprehensive segment (">0%"), the growth rate was 100 percent. In the less comprehensive foreign-ownership segments, the growth was much faster: 126 percent in the ">50%" segment and 138 percent in the "=100%" segment.

Figure I-16 Cumulative growth of relevant enterprises 2022/2018



Source: FINA, own calculations

This analysis has shown that the growth of sales revenue in foreign markets is the main "factor X" responsible for the dynamic differences between foreign controlled enterprises and domestically controlled enterprises.[19] The contribution of the foreign controlled ones to the economic growth arises from structural change in the corporate sector. This change takes place simultaneously with the principal growth-related stories focused on countercyclical macroeconomic policies and the EU funds. This is good news, because the effects of the EU funds and domestic demand on growth will decline in the future and further growth of productivity will depend on structural characteristics of the corporate sector.

This does not mean that public policy is not important for growth. On the contrary, some public policy elements can be directly associated with the growth channel presented in this analysis. Financial stability and introduction of euro have certainly facilitated the corporate sector development described here. Just like efficient administration, rule of law, predictable regulation and educated workers and managers would certainly facilitate continuation of the development based on internationalization of Croatian companies. Numerous small and open (successful) countries – from Ireland, Denmark and Sweden to Estonia, Czechia, Israel, and Singapore – have built their successful development and the living standards of their citizens on the above-described attraction factors and promotion of internationalization of the corporate sector. Investment in infrastructure, education, social standard, green projects, and digitalized administration creates a social framework for better living and working conditions and, indirectly, attracts other investment.

[19] Other data for 2018 – value added, average wage and return on capital – exhibits similar relations as the data for 2022 presented earlier in the text (only the amounts and ratios are much bigger).

The capillary nature of internationally controlled companies: overview by industries

What remains to be done is to answer the question whether the described foreign controlled enterprises' contribution to the economic growth has managed to change the concentration of foreign investment in the four dominant sectors: finance, trade, telecommunications and real estate. In order to bring to light Croatian development potentials, it would be very important to be able to show that the sector-diversified foreign controlled enterprises have substantially contributed to the economic growth that in previous years was largely based on export. This would mean that an important shift in quality of some of the effects of FDI on Croatian economy has been taking place.

Using the National Classification of Economic Activities (NACE), "industries" are defined here as divisions with a two-digit code (01-99): e.g., 03 – fisheries, or 62 – computer programming, consultancy and related activities. The database used here is the one of FINA, segmented in such way that only relevant enterprises are included. As some divisions do not contain relevant Croatian enterprises, for this analysis we have divided the corporate sector into 82 divisions encompassing large enterprises with revenues that exceeded one million euros in 2022[20] (12,721 enterprises).

Expectedly, based on the number of classified enterprises, the following divisions have the highest shares of large enterprises with a minimum revenue of one million euros: 46 – wholesale trade, except of motor vehicles and motorcycles (19.5%); 47 – retail trade, except of motor vehicles and motorcycles (8.7%); 41 – construction of buildings (5.4%); 25 – manufacture of fabricated metal products, except machinery and equipment (3.7%); 45 – wholesale and retail trade and repair of motor vehicles and motorcycles (3.4%); and 62 – computer programming, consultancy and related activities (3.1%). Large foreign controlled enterprises are present in 73 out of 82 (89%) observed divisions of the National Classification of Economic Activities in which relevant Croatian enterprises are doing business. The share of such enterprises with a foreign ownership component in the total number of relevant enterprises is the highest in the following divisions: 66 – activities auxiliary to financial services and insurance activities (62.5 percent, or 5 out of 8 large enterprises); 21 – manufacture of basic pharmaceutical products and pharmaceutical preparations (52.9 percent, or 9 out of 17 large companies); 63 – information service activities (48.7 percent, or 19 out of 39 large enterprises); and 72 – scientific research and development (48 percent, or 12 out of 25 large enterprises).

The results further below are given for the 73 NACE divisions where relevant Croatian enterprises are doing business and where there are relevant enterprises with a foreign ownership component. All foreign owned companies, regardless of the share of foreign ownership, were included in enterprises with a foreign ownership component based on the most comprehensive definition (the ">0%" criterion). This is because the analysis has shown that the two less comprehensive definitions yield even more convincing differences. So, if the results comply with the most comprehensive definition of foreign ownership, it is reasonable to expect they will also comply with the two less comprehensive definitions (">50%" and "=100%"). Every result in the table below is given as the number and percentage share of the total of 73 industries in which the indicator (the values of which are shown in the tables above) is better for the enterprises with a foreign ownership component.

[20] The sample was reduced by 5 large business–physical persons that do submit their annual financial reports to FINA, but the industrial classification of which is unknown. The industrial diversification analysis was based on 12,716 large enterprises from the sample.

The observed indicators are better for the enterprises with a foreign ownership component in more than 53 percent of the 73 industries in which large enterprises with both domestic and foreign ownership are doing business. Investments per company are higher for "foreigners" in 44 industries (60.3 percent of the industries observed). Another manifested advantage is the average number of employees per company, which is bigger for enterprises with a foreign ownership component in 48 industries (65.8 percent of the industries observed). Capital per company is bigger in 54 industries (74 percent of the industries observed). It should be noted here that the advantage of domestically owned companies is concentrated in the segments with a high presence of state-owned enterprises such as forestry and logging, power supply, and land and pipeline transport. This often comes down to the advantage of a single dominant state-owned company such as HEP in the power-supply sector. Consistent with the abovementioned results are the three indicators manifesting the biggest difference between foreign controlled and domestically controlled enterprises: sales revenue per employee (a rough indicator of productivity) is higher for foreign controlled enterprises in 60 (82.2%) divisions; foreign sales revenue per employee is higher in 62 (84.9%) divisions; and average net wage per employee is higher in 67 (91.8%) divisions/industries.

Table I-3. Comparison of indicators per industry for large enterprises with revenues exceeding one million euros in 2022.

Indicator	Number of industries (NACE divisions) where indicator is higher for enterprises with foreign ownership component	Percentage share of number of industries where indicator is higher for enterprises with foreign ownership component (of the total of 73 NACE divisions)
No. of employees per company	48	65.8%
Sales revenue per employee	60	82.2%
Foreign sales revenue (export) per employee	62	84.9%
Investment per company	44	60.3%
Capital per company*	54	74.0%
Gross return on capital	43	58.9%
Average net wage per employee	67	91.8%

Source: FINA, own calculations

We can conclude that the presence and developmental advantage of foreign controlled enterprises are not concentrated in a small number of sectors anymore. Croatia's EU accession was followed by sectoral diversification and capillary expansion of the positive developmental effects of foreign-owned companies. Export was the key channel that stimulated the growth of this business segment. It may also be

inferred that, among relevant enterprises, the relations between indicators favoring foreign controlled enterprises are valid not only in the entire sample of relevant enterprises, but also in sub-samples segmented by industries.

Instead of a conclusion: the role of M&A transactions (mergers and acquisitions) and a new outlook upon FDI

The merger and acquisition (M&A) activities in which a foreign buyer usually purchases a part or the whole of a Croatian company support the experience-based conviction that a (good) foreign owner has a number of potential advantages. When such a transaction takes place, it reveals preferences of the two parties by showing that a Croatian company is worth more to the foreign buyer than to the Croatian entrepreneur who has developed it and is now selling shares. Although sometimes factors external to the company can cause such a transaction[21], the foreign buyer usually sees in the Croatian company a platform he could improve or develop (technologically, organizationally, managerially and/or by accessing new markets), in the ways for which its creator – the original entrepreneur – lacks capital, knowledge or patience. Patient capital is often required for a company's growth and development.

Croatian public is familiar with the biggest visible examples mentioned at the beginning of the chapter (Rimac, Infobip, Photomath and Nanobit). They do not have a common denominator because they organized their respective transitions from domestic to foreign ownership (while often maintaining significant components of the domestic share) with different motivations and business strategies and resulting in different ownership structures after the ownership transactions. This analysis included examining of notable M&A transactions[22] in Croatia from the 2018–2022 period – a total of 205 of them. Of these, in 73 cases the acquiring company was from Croatia and in 132 cases (65%) it was foreign. This is yet another evidence that foreign capital is crucial for creating structural dynamics in the economy: in two out of three notable M&A transactions in Croatia in the past five years, foreign investors played a key role. Also, some of the Croatian acquiring companies were Croatian only formally: in many cases those were actually Croatian investment funds with foreign capital that were just acting as acquirors. In such cases we can talk about an indirect internationalization of the corporate sector, which includes everything that usually takes place in a direct acquisition by a foreign investor: access to capital, improvement of business management, and – quite often – turning to export markets. By analyzing 132 recent acquisitions of Croatian companies where a foreign investor could be directly identified as the buyer, we established that these investors came from 34 different countries. This indicates there is a global interest in investing in Croatian companies, triggered by the country's EU accession. The diversification of the countries which are sources of foreign investment is a healthy economic process that follows the sectoral diversification of such investment.

This analysis has shown that the corporate sector internationalization has been going on in Croatia in almost every industry. Shortage of labor limits the possibilities of coupling FDI and export based on industrial greenfield investment that mobilizes massive labor force with comparatively low wages. This wave of foreign investment, most advantageous to Central and East European countries at the turn of

[21] For example, the company's creator – the original entrepreneur – can come up against the problem of succession, doubting that his heirs would be able to maintain his business. For this reason, he decides that selling it would be the best option for the family.

[22] The database was edited courtesy of the consulting firm Grubišić i partneri d.o.o.

the century and to Romania later on, is now an irreversible past. Croatian labor force will not be relatively cheap anymore – a necessary condition for preventing emigration (see the next analytical chapter for details). The sources of efficiency which are to attract new waves of foreign investment should be sought for in rule of law, elimination of corruption, rational regulation, stimulating tax framework, an efficient public system for attraction and stimulation of investment, high-quality education, and a functioning labor market. All this is required for creating a favorable business and investment environment and for positioning Croatia on the map of Europe as an attractive destination for doing business. This is a precondition for the continuation of the corporate sector internationalization process in Croatia.

While under way to an extent, the corporate sector internationalization process in Croatia is lagging behind the identical processes taking place in small, open economies not only in the East, but also in the developed West and South of European Union, as well as in successful small and open economies worldwide, such as Israel and Singapore. A number of countries that can be considered small and open – from Malta, Slovenia and Austria to Belgium, Netherlands and Nordic countries – can be used as internationalization role-models, indicating that Croatia's enterprises are yet to expect full benefits of the country's opening, given its size. Croatian enterprises are still not entwined enough with the international market – neither in terms of ownership nor in terms of export orientation and integration in the international supply chains. True, there were some positive developments after Croatia's EU accession in 2013 and its recovery from the long recession of 2009–2014. The process resulted in a very solid economic growth that took place between 2018 and 2022 and this analysis shows that the structural change in the corporate sector had a strong positive impact on the growth (particularly via the growth of export). But these are just indications of a possibility for further growth. Croatia will use this opportunity only if it turns into a business-friendly country with high-quality, efficient and unbiased institutional infrastructure modeled on the developed small and open EU countries like Austria, Slovenia and Czechia in Central Europe, Ireland and Benelux in the Northwest, and Denmark, Sweden, Finland and Estonia in the North. Israel can be used as a role model for turning start-up dynamics and strong R&D into a driving force for exporting services to overseas countries, thus achieving geographical diversification of its international trade and reducing dependency on its immediate geographical neighborhood. Singapore, on the other hand, can be used as a role-model for creating ultraefficient administration and open economy based on export of transport and logistics services. Croatia should also pay attention to its power-supply sector and seize the opportunities coming along in the context of green transition and attempts to reduce EU's dependency on Russian energy products. In order for Croatia to use its undeniable potentials, it should change its administrative practices so as to meet the highest international standards of transparency, efficiency and professionalism required from a country planning to join the OECD. The OECD accession process is a great opportunity for Croatia to move forward in its development and, by internationalizing its enterprises, ensure a basis for a sustainable productivity growth in a competitive framework. Only competitiveness can enable a permanent growth that will remain stable once the current EU fund influx cycle and growth of domestic demand are over.

THE CHALLENGES OF THE LABOR MARKET AND EDUCATION

Abstract

During the last five years of a relatively fast economic growth, Croatia was simultaneously affected by emigration, aging of its population, and a sudden increase in labor demand – and all that against the backdrop of a tense situation in labor market, unprecedented in Croatia's history. This brought the unemployment rate close to the EU average. It is estimated that the labor market tensions will persist. Other sources of workforce include: (1) a more rapid transition of young people from the world of education to the world of work and an increase in the employment rate for the young people of up to 29 years of age; (2) longer presence of persons of 55+ years of age in the world of work, including younger pensioners; (3) emigrants returning to Croatia and hiring of foreign workers with scarce skills; and (4) increasing efficiency of state-owned enterprises in order to retrain redundant labor and employ them – while increasing their productivity – in other enterprises in the market. Besides aggregate labor supply, quality will also be crucial in the years to come. The quality of education will determine the diversification of professions and dynamics of the growth of share of highly skilled experts (whose work creates higher added value) in total employment.

In addition to increasing the quality of education, labor market balancing measures also include: (1) discouraging early retirements; (2) tax incentives for hiring younger pensioners; (3) public investment and stimulations for private investment in eldercare systems and preschool education; (4) extending tax reliefs for employers' payments to workers, particularly the payments for child development costs; (5) simplifying recruitment of foreign workers during business cycle peaks; (6) introducing incentive programs for entrepreneurs investing in immigrant workers; and (7) facilitating validation of foreign degrees and licenses in order to attract foreign experts.

Labor market and education policies are expected to decrease stimulation of emigration and increase stimulation of targeted immigration to meet the requirements of a labor market driven by new, productive investment. The nature of new investment should enable Croatia's actual individual consumption, which is currently lagging behind the European average by 24 percentage points, to step up and reach 90 percent of the EU average (thus lagging behind it by only 10 percentage points) in the near future. As development gap reduction is crucial for stabilizing Croatia's demographics, reaching 90 percent of the EU's development level should be the country's main goal. Investment of foreign controlled enterprises – usually more productive, export-oriented and paying above-average wages – are crucial for creating the economic dynamics necessary for achieving more ambitious economic goals.

Croatia has a relatively low share of highly educated workforce and weaknesses in its higher and lifelong education system. Part of the problem lies in the rigid supply of educational programs and their insensitivity to the market signals indicating the demand for knowledge and skills. This problem can be eliminated by extensive application of dual education model supported by strong tax incentives for all sorts of employee education, payments of fees and scholarships, foreign language courses, and corporate investment and donations to educational purposes. The general framework of these measures should be complemented with a national program for stimulation of education (including incentives on the educational services demand side).

In the five-year period spanning the second quarter of 2018 and the second quarter of 2022, the unemployment rate in Croatia was reduced from 8.6 percent to 6.0 percent.[1] This reduction was faster than that of the EU average (from 7.5 percent to 6.0 percent). For the first time in Croatia's recent history, the average unemployment rate in European Union was achieved. At the same time, the employment rate measured as a share of employed working-age population in the total population between 20 and 65 years of age was increased from 65.5 percent to 71.4 percent. This increase for almost 6 percentage points brought Croatia closer to the EU-27 average unemployment rate (75.4 percent) in as little as five years.

This rapid catching up with the EU average had its downsides, too. In the past five years Croatia's labor market has undergone major changes. The country experienced simultaneous effects of three factors that had never before appeared at the same time: (1) the emigration wave that Croatia saw after its EU accession that started at the end of the long recession (2009–2014); (2) the ageing of the population resulted in a lower number of young people joining the labor market every year; (3) a strong upturn in the economic cycle that began in 2015 and led to a strong increase in labor demand. Evidence of the strength of the third factor in the past five years can be seen in the fact that the official administrative number of registered wage earners increased by 225,000 (15.7 percent) in the period from June 2018 to June 2023. According to an alternative methodology used in Labor Force Survey (which also includes shaddow economy), this increase was lower, but still significant. The exact number cannot be established due to changes in methodology. The fact remains, however, that currently there are approx. 200,000 pension contributors more than in 2014.

The tensions in the labor market will occasionally relax due to fluctuations in labor demand, depending on economic cycle. However, substantial change in labor demand has already taken place and is permanent. The labor demand in Croatia is more and more constricted due the structural reasons threatening to limit Croatia's capacity for economic growth and development in the long run. Labor market activity stimulation measures will be required to eliminate growth and development bottlenecks.

Age and sex structure of employees in Croatia

Employment rates in Croatia are not evenly distributed per sex and age. The employment rate of women between 25 and 54 years of age exceeds the European average by 2 percentage points. However, compared to the EU-27 average, these rates are substantially falling behind when it comes to younger women (11 percentage points below the EU average for women aged 15 to 24) and elderly population (9 percentage points below the EU average for women aged 55 to 64).

The employment rate of the men of prime working age (25 – 54 years) in Croatia is around 85 percent, which is only 2 percentage points below the EU-27 average. However, this backlog is large for young men (-6 percentage points in the age group 15–24) and very large for older men (around 14 percentage points in the age group 55–64). Clearly, there is a room for employment growth both for young and for older men.

The potential of activation of older men indicated by statistical differences is higher than the one objectively possible. The Homeland War of 1991–1995 left its mark on the generation that has now reached the age of 55+. The objective limitations of disablement are accompanied by protracted inactivation of numerous veterans' pensions beneficiaries, which makes them unwilling or not ready to face the challenges of the modern labor market. However, on average, the men of the wartime generation are nearing the legal retirement age (65 years) or have already reached it. The greatest challenge in the years to

[1] Labor Force Survey, Eurostat.

come is finding a way of retaining the next active generation of men (who were not in the war and are approaching the 55–64 age group) in the world of work as long as possible – at least until the legal retirement age. Restrictive measures such as higher penalties for early retirement and gradual shifting of the earliest age for early retirement from current legal full-retirement age minus five years to minus two or three years can be combined with incentive measures such as *subsidized (and/or tax-stimulated) educational programs: (1) in-service training programs; (2) lifestyle programs (learning about healthy diet, exercise and the habits beneficial to senior citizens), sports and health programs (with tax deductions for the companies that pay public and private supplemental health insurance that promotes health, improves medical treatments and reduces the risk of premature illness-induced disablement); and (3) abolishing or subsidizing social security contributions for the active pensioners who continue working part-time after statutory-age retirement.*[2]

Figure L-1a. Employment rates for men in 3 large age groups, Croatia and EU-27 average in %, Q2 2023

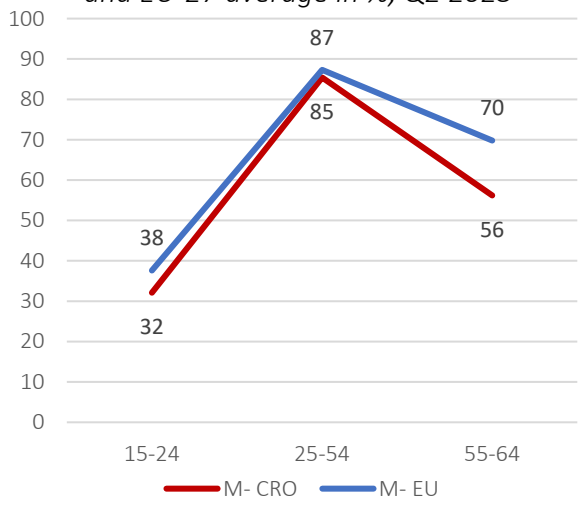
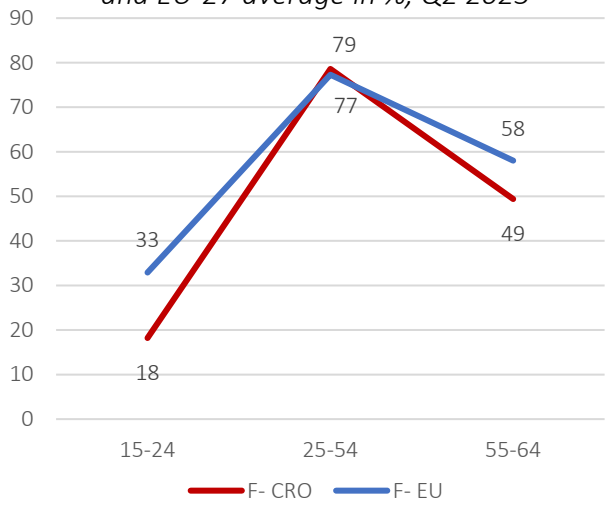


Figure L-1b. Employment rates for women in 3 large age groups, Croatia and EU-27 average in %, Q2 2023



Source: Eurostat

Note: employment rate is the number of employees compared to the total number of inhabitants belonging a particular age group

The lower-than-the-EU-27-average unemployment rate for older women is related to the lower legal statutory-retirement age and early-retirement age for women. The effects of the lower statutory-retirement age for women will gradually disappear. The statutory age for full retirement for women will be shifted for 3 months every year and will be brought to line with the current statutory age for men (65) in 2030. Still, the problem of easy access to early retirements will linger on. Both for men and for women, early retirement is determined by reductions compared to the statutory-retirement age over a period of five years, with a rather low pension reduction rate of 0.2 percent per month or 2.4 percent per year, or

[2] In such case, subsequent pension increases (recalculations) proportional to the time spent working after retirement could not be possible. It is uncertain how strong a pension recalculation motive is for working in retirement. An additional current income is probably a much stronger motive than a subsequent pension recalculation. However, full or partial subsidies for those who work after retirement in scarce occupations could be considered, so that the right to subsequent pension recalculation may be retained. The abolishment of health care contributions makes sense only for the pensioners who have reached the age for full retirement pension; this way, unnecessary stimulation of early retirement and post-retirement part-time work would be avoided.

a total of 12 percent in case of early retirement 5 years before the statutory-retirement age. Penalties can be increased because they are lower than in many other EU member states.

In addition to the abovementioned measures for discouraging early retirement, there is one specificity about older women leaving labor market early that calls for additional measures. It has to do with the traditional role of women in providing care in the family. Some time after turning 50 years of age, women acquire a second role. On the one hand, the precursory generation (parents) is about to reach an advanced age and need additional care, including the most demanding one – palliative care. The required high-quality care for the elderly provided by Croatian public institutions is not sufficient, so women of an advanced age often provide this care in the family. On the other hand, the next generation (children) is about to have their own children, so 50+ women often acquire another traditional role popularly known in Croatia as *grandma service*. This is why women of an advanced age often remain active in their dual family-care roles, but this takes place outside the labor market.

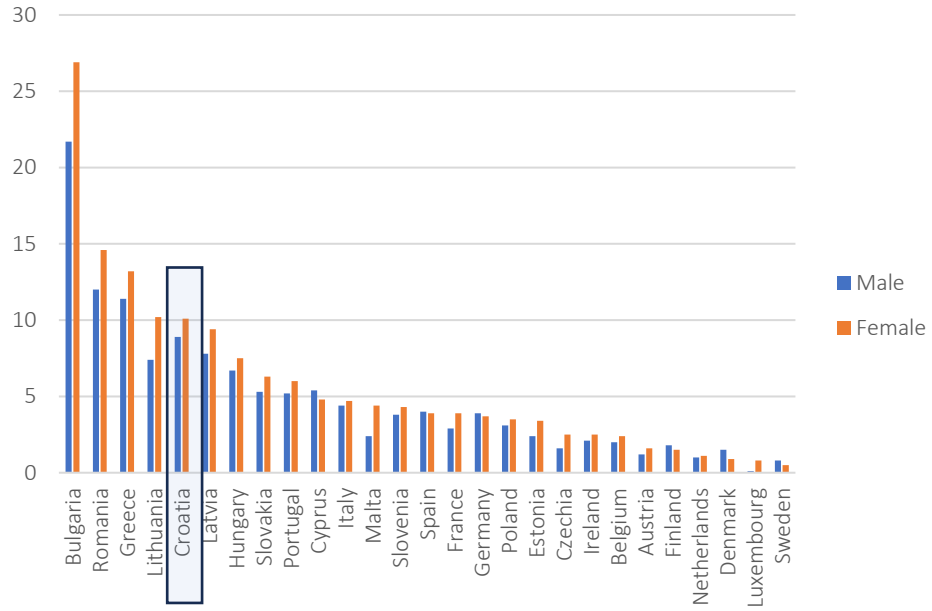
This inherited model is not efficient. The economy is deprived of its workforce and the care is provided by unqualified persons. Despite love and good intentions, it can cause excessive stress in the providers of such family care and result in poor individual and social outcomes. The experience of the northern EU member states shows that *public investment and/or subsidizing of private care for the youngest and oldest members of society can create multiple benefits*. The women belonging to the 55–64 age group remain active in the labor market for a longer period and have better lives with higher pensions.

The employment rate for women in the 55–64 age group presented here (Figure L-1b), which is only 49 percent in Croatia, supports the thesis that there is potential in this segment of the labor market. The EU-27 average is 58 percent. The employment rates for this group of women are 70 percent in Denmark, 71 percent in Germany, 73 percent in Finland, and 76 percent in Estonia and Sweden. According to the 2021 census, there were 297,000 women in the 55–64 age group in Croatia. Hypothetically, if the employment rate for the women of this age group was 70 percent instead of actual 49 percent, some 62,000 more women in Croatia would have a job.

If women were economically active for a longer period, it would substantially reduce the risk of poverty in old age because, when this risk is concerned, it is the old-age group women that are most vulnerable. When the severe material deprivation rate is observed, Croatia has the fifth highest poverty rate in the EU, ranking behind Bulgaria, Romania, Greece and Lithuania – with this rate by almost 2 percentage points higher for older women than for men. Longer presence of women in the world of work is the best way for Croatia's shift to the righthand side of Figure L-2.

While longer presence of women in the world of work has potential of social progress, it is often heard that a higher rate of participation of older women in the labor market is not in line with Croatia's sociocultural heritage. However, traditions do not appear from nowhere. Traditions are, among other things, a result of policies of the past, as well as of the lower levels of education of women of the earlier generations. This problem has been eliminated in the meantime. What still remains is the first problem, linked with middle-aged (and late middle-aged) women returning to the traditional dual role of family care providers. This is a result of insufficient public investment in the social care network for the oldest and ill persons and in palliative care, as well as of insufficient investment in nursery, kindergarten and preschool programs for children. These programs constitute an efficient replacement for the traditional *grandma service*, exposing children to more diversified social and emotional experiences early in their lives.

Figure L-2. Rate of severe material deprivation 2020. in % of total population 55+



Source: Eurostat

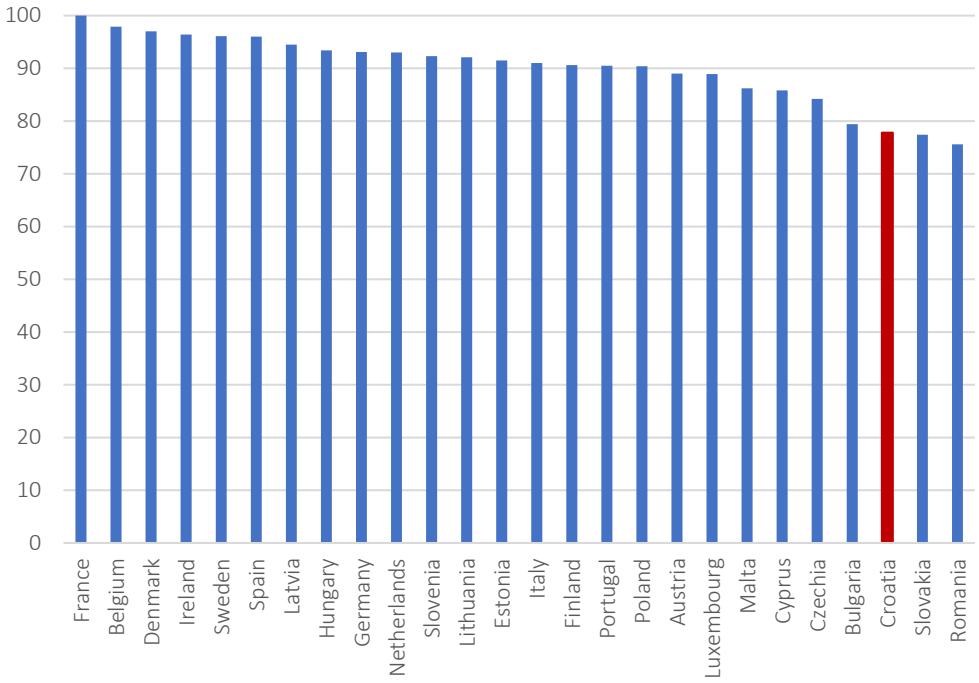
Increased public expenditure for both of these social institutions will create indirect social benefits through higher employment rates for women of an advanced age. The second area mentioned – public care for raising the young – has an additional importance. Besides indirectly relieving middle-aged women of their traditional role in the family, public investment in cost-effective nursery, kindergarten and preschool programs are an efficient measure of demographic renewal and a support for young women's inclusion in the labor market. This makes it easier for younger women to reconcile their roles of economically active persons and mothers. *Tax incentives should be provided for private investment in such programs and for the companies that cover the care and parenting expenses of their employees*.

Demographic change and youth employment

According to the 2021 data, 78 percent of children in Croatia are included in the kindergarten and preschool programs for the children from 3 years of age to preschool age. Lower enrolment rates have been recorded only in Romania and Slovakia. In Central and Eastern Europe, the highest enrolment rates of preschool children have been recorded in Hungary (93.4 percent) and Slovenia (92.3 percent). The example of several EU member states indicates that enrolment rates of 100 percent or near this percentage are possible (France, Belgium, Denmark, Ireland, Sweden, Spain, Lithuania – see Figure L-3). Croatia is lagging behind the EU average by approx. 20 percent but has substantial regional differences, ranging between 86.7 percent of enrolled children in Zagreb (like in Malta) and 61.9 percent in the Pannonian region. This is much lower than the share in any country shown in Figure L-3. In addition, predominant in Croatia are public preschool programs. The shortage of programs could partly be eliminated with *incentives for training of skilled personnel and starting private entrepreneurial ventures in preschool education*. For instance, Germany, Denmark, Poland, Spain and Belgium – all of them countries with high participation rates of preschool children – have combined offers of programs with significant shares of

the private segment. Besides entrepreneurs, private programs are offered by various associations, communities and the church. In Germany, the share of the children enrolled in private programs exceeds 60 percent. Although partly financed by local governments, private programs are mostly financed with a combination of local budgetary funds, central budget subsidies and parents' contributions.[3] Croatia should aim at increasing substantially the children's participation in preschool education programs while minimizing the parents' contributions. This could be achieved by *increasing tax incentives for the companies that cover child expenditure of their young employees-parents and by covering this expenditure by the state in the periods when young employees-parents are unemployed*.

Figure L-3 % of children from age 3 to compulsory education age included in early childhood education programs



Source: Eurostat

Since 2019, Croatian employers have been exempted from corporate income tax if they cover preschool education expenses of their employees. Employers' participation could also be increased in the segment of incentives for the employers who cover such expenses of their workers by *increasing the tax deductions for payment of the workers' allowances for the preschool education of their children and by expanding the untaxable receipts for educational benefits (e.g. textbook costs) and other similar expenses (extracurricular activities). Tax deductions in proportion of allowances paid by employers for childbirth could also be doubled and employers could be additionally stimulated by expanding incentives by enhancing the tax allowance rate for calculation of corporate income tax*.

The measures aiming at relieving working parents for a longer period of time will probably have stronger positive demographic effect than the one-time measures such as childbirth transfers. However, tax reliefs

[3] https://eurydice.eacea.ec.europa.eu/national-education-systems/germany/early-childhood-and-school-education-funding

and incentives are not strong enough to have fundamental effects on young people's late inclusion in the world of work.[4] Dealing with this problem requires deeper reforms in the education sector.

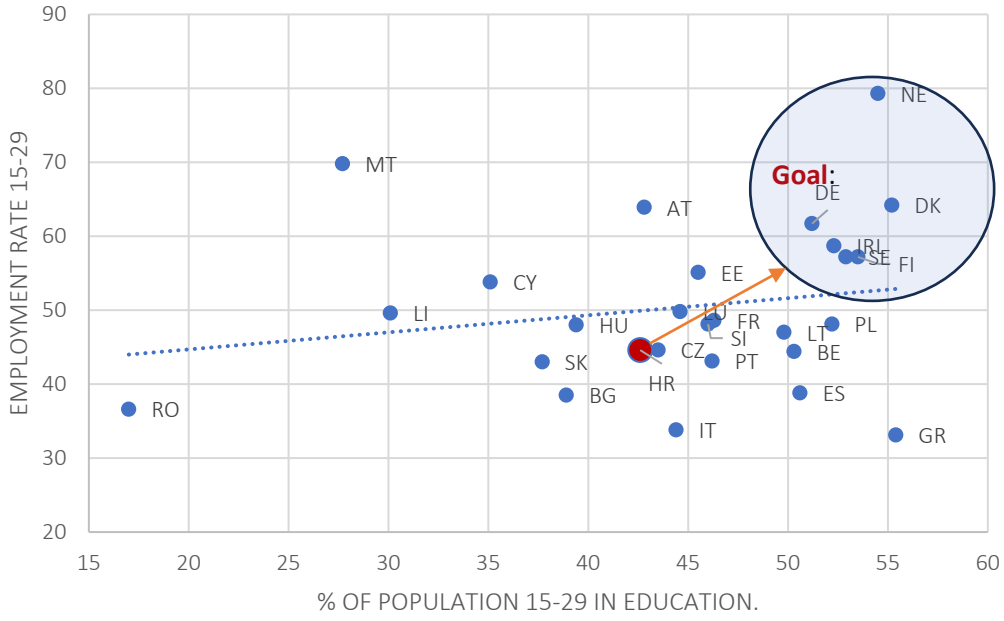
The problem of young people in the labor market is manifested in two ways: (1) their late inclusion in the labor market, and (2) reduction of young population due to years of reduced birth rates and emigration. Young people's late inclusion in the labor market is not a problem if it is a result of long-term education that trains young people for a productive life. A clearer picture of the situation can emerge if an extended age group (from 15 to 29 years of age) is considered. When the employment rate for this age group (42.6 percent in Croatia) is compared with the share of the population of this age included in education (45 percent in Croatia), it turns out that participation in education and participation in the labor market are not opposed to each other (Figure L-4). In six most successful EU member states in the segment of education and youth employment (Netherlands, Denmark, Germany, Sweden, Finland and Ireland – shown in the circle in the upper right corner of Figure L-4), the sum of the rates on the *x* and *y* axes exceeds 100. This means that the roles of education and labor do not exclude each other – they actually overlap. Many high-school and university students in these countries are employed – which is a distinguishing feature of dual education models. This duality means that labor and education operate together, unlike the traditional model in which the world of work and the world of education are strictly separated. In developed countries, such interconnectedness of labor and education is also found on the higher-education level.

The interfusion of the worlds of labor and education described here takes place in two ways. First, better education means higher employability soon after completion of education; second, many in the most developed countries work and attend high schools or universities at the same time. More on dual education models will be said in the section on the quality of education. For now, it should be noted that Croatia has a better combination of employment rate and (secondary and tertiary) education attendance rate of young people aged between 15 and 29 than most of the countries of Southern Europe and Slovakia. In the foreseeable future, by applying the *measures for strengthening the connections between employment and education* described in the second part of this chapter, Croatia can catch up with the developed countries approaching the upper right corner of Figure L-4 (Estonia, France, Luxembourg and Slovenia) and then strive to join the leading six in the circle in that corner. We can recommend here *strengthening of tax incentives for employing young people by lifting the age limit for full income-tax exemption from 25 to 30 years of age*.

The problem of young people's participation in the labor market appears here against the backdrop of a new demographic reality caused by the drop of birth rate. The demographic transition process can be observed in all EU member states. It stimulates the competition between countries in attracting workers in the single market. According to the 2001 census, there were 604,000 young people aged between 15 and 24 in Croatia. The 2021 census showed that this figure had dropped to 400,000 (by almost one third) over a 20-year period. To all appearances, this figure will continue to drop. This is why, when a solution for this problem is sought, it should be kept in mind that it is least pronounced in countries which are more developed and more open to immigration (Sweden, Belgium, Denmark, Spain, Italy and France – Figure L-5).

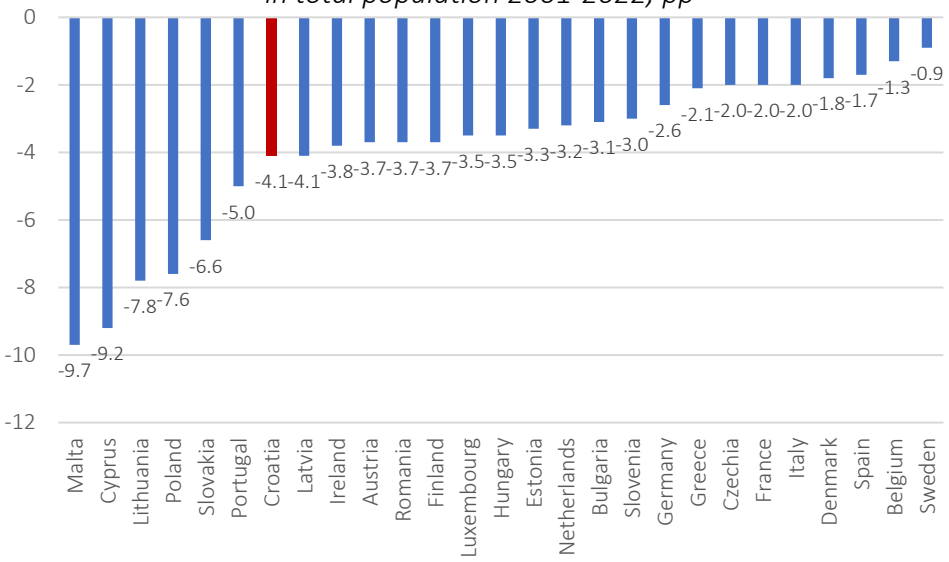
[4] A five-year period of exemption from social security contributions for the workers below 30 years of age employed permanently for the first time has been in place in Croatia for a while.

Figure L-4. Education and employment, age group 15-29 2021



Source: Eurostat

Figure L-5. Change in population share of 0-19y age group in total population 2001-2022, pp



Source: Eurostat

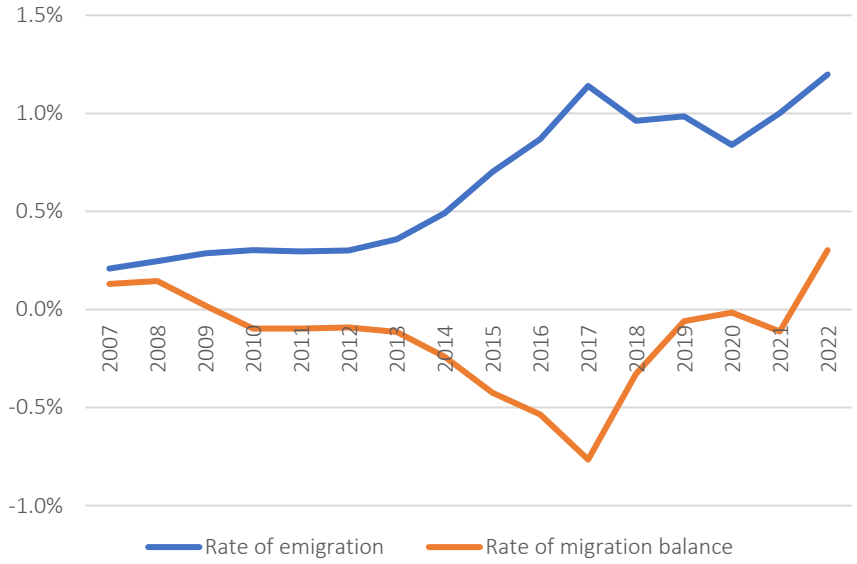
Migrations: If capital will not come to the people, the people will come to capital

Croatia is entering a stage of its demographic development in which the departure of 30,000–40,000 people who retire from their employment yearly will not be possible to compensate with the country's own young workers. Also, the countries more developed than Croatia will continue to attract people. Croatia should have an active response to this challenge. It should include the following measures: (1) stimulating investment in order to increase productivity and income, thus attracting better-educated

workers and motivating some of its own citizens who have emigrated in the past years to return; (2) increasing the quality of public services and policies, particularly in education and quality of institutions, in order to retain its own citizens; and (3) having in place an immigration policy that would ensure adequate hiring of immigrants and their social inclusion.

The intensity of emigration is shown in Figure L-6 in the form of a ratio between the number of emigrants in a calendar year and an estimated number of inhabitants at the beginning of the same year. Figure L-6 shows that intensive emigration is a relatively new phenomenon.[5] The emigration rate accelerated after the EU accession and immediately after the recession of 2009–2014. It had its first short-term peak in 2017. After that, it retained a relatively high level of approx. 1 percent of the population emigrating every year. It decelerated during the pandemic lockdown, only to accelerate again in 2022, when the emigration rate reached 1.2 percent. A new phenomenon was observed in the post-pandemic period: acceleration of immigration effected by a dynamic labor market. In 2022, immigration reversed the effects of the emigration rate. The migration balance rate improved: in 2022 it was positive (0.3 percent), which had not been recorded in Croatia for years.

Figure L-6. Rate of emigration and migration balance in Croatia 2007-2022



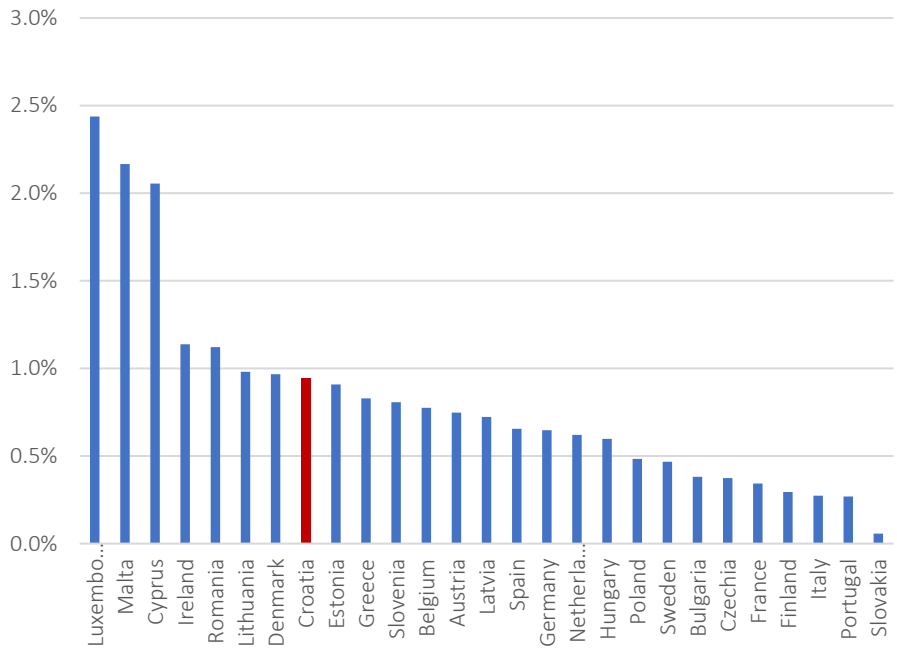
Note: The immigration rate – not shown in this picture – is a sum total of the emigration rate and the migration balance rate.
Source: CBS

A high emigration rate of approx. 1 percent is not Croatia's specificity (Figure L-7). Some eastern and southeastern EU countries in which such trends are to be expected due to development levels lower than the EU average (Romania – 1.1 percent, Lithuania – 1.0 percent, Estonia – 0.9 percent, Greece – 0.8 percent) have recorded similar emigration rates. What surprises is the fact that Slovenia ended up in this group, having a high emigration rate of 0.8 percent. Particularly surprising are the high emigration rates in wealthy countries: Ireland (1.1 percent), Denmark (1.0 percent) and Belgium (0.8 percent). The very high emigration rates in the smallest countries – Cyprus, Malta and Luxembourg – will not be analyzed here in detail because they are specific cases connected with the migrant crisis (Cyprus and Malta) or

[5] If we ignore the large emigration waves taking place in the past every 20 to 30 years.

with a high mobility of people caused by business-related reasons in tax, financial and administrative havens with rather small autochthonous populations (Luxembourg, Cyprus and Malta). Important for us are the abovementioned examples of Ireland, Denmark and Belgium, as well as those of Spain, Latvia and Austria (with average emigration rates around 0.7 percent). Their experience shows that emigration cannot be stopped – it takes place even in developed countries. This is why migration balance – the difference between immigration and emigration rates – is crucial for demographic dynamics, particularly in the countries where both rates are high because of their smaller populations and higher economic dynamics. Chances are that Croatia, as a small and open country, will gradually become similar to the small but developed European countries with high population rotation rates. This indicates the development of new policies with the following goals: (a) creating incentives for the return of the earlier emigrants; (b) ensuring social integration of immigrant workers coming to perform simple jobs that the domicile population does not want to perform; and (c) having in place an active policy for attracting foreigners – such talents and experts that the national education system cannot produce.

Figure L-7. Rate of emigration, average 2018-2021



Source: Eurostat, own calculation

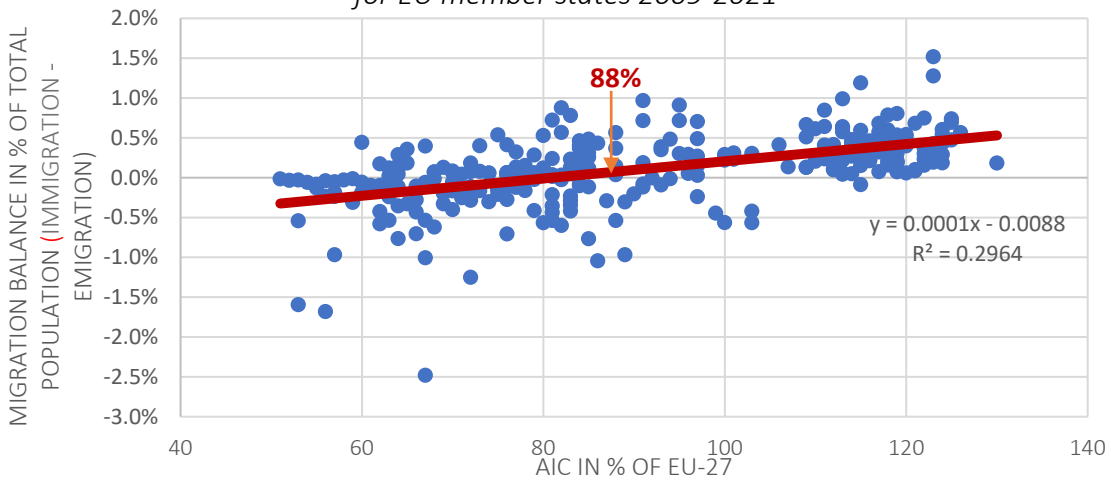
The migration balance depends on numerous factors, but one of them is fundamental: the achieved level of living standards. Living standards are the key factor of a country's attractiveness. Figure L-8 shows annual migration balances for 24 EU member states (without Luxembourg, Cyprus, and Malta, for the reasons explained earlier) in the period from 2009 to 2021.[6] These balances are related with the annual data on actual individual consumption (AIC). The AIC is shown as the percentage of the EU-27 average. It is an indicator of living standards closely connected with the GDP per capita at purchasing power parity. It is a comprehensive measure which includes not only the real individual consumption of market goods,

[6] The year 2021 is the last one for which data exist in the Eurostat database and 2009 was selected as the initial year because the average migration balance, calculated as a simple average from the data for 27 member states since 2009, later varied within the narrow range from 0.7 percent to 0.9 percent.

but also the social standards (the value of consumed public goods). A higher AIC is linked with a lower risk of net emigration (negative migration balance) because the *societies with higher living standards manage to retain and attract people*.

Figure L-8 shows that there is a level of actual individual consumption where the net emigration risk stops, and the zone of attraction begins in which the expected average migration balance becomes positive. The data in Figure L-8 show that this critical level of living standards is achieved when the AIC reaches 88 percent of the EU-27 average (Croatia's AIC is currently 76 percent). The regression line crosses the zero line of the migration balance rate shown on the *y* axis when the AIC is 88 percent. When the AIC is around 90 percent or higher, the average net migration balance becomes positive: the demographics become stabilized to an extent, and the contribution of migrations to the population drop disappears.

Figure L-8. Actual individual consumption (AIC) and migration balance for EU member states 2009-2021



Source: Eurostat, own calculations

The connection shown here is not of deterministic nature. The data around the regression line is dispersed. Specific circumstances other than the level of living standards can cause negative migration balances even when the AIC is higher than 88 percent of the European average. The opposite is also true. For instance, in the period between 2009 and 2021, Poland raised its AIC from 66 to 84 percent.[7] This means that the country had been below the statistical threshold of 88 percent, but it constantly recorded a positive migration balance due to its economic growth rate and vicinity of Ukraine as a permanent source of immigration. The process had been going on even before Russia's aggression on Ukraine, via the historically established route across Poland's southern regions around Krakow (former Austrian Galicia that incorporated parts of Poland and Ukraine). As for Greece, despite the drop of its AIC below 88 percent after 2012, it had a positive migration balance due to the inflow of refugees from Middle East and Africa at the peak of the pre-pandemic migrant crisis.

Despite local specificities, variations of migration balance rates are profiled in such way that the probability of a negative migration balance drops with the growth of living standards. The probability of a negative migration balance disappears almost completely with the AIC exceeding the European average (100 percent on the *x* axis in Figure L-8). In light of data for Croatia, which substantially – albeit not

[7] Dana before December 2023 revision. Final figure for Poland 2022 is 87%.

sufficiently – increased its AIC from to 76 percent of the European average in the period from 2009 to 2022, *raising living standards to the level of approx. 90 percent of the European average arises as a new national priority. It is not a goal as such; it serves higher social goals: stabilizing the population, retaining the people, achieving a more uniform economic and social development across regions, attracting new people and talents, and returning some of its emigrated citizens to the homeland*.

The failure of the government's direct subsidies for the return of emigrated citizens confirms that the causes of individuals' decisions to move abroad were predominantly of economic nature. Such decisions cannot be changed by government subsidies and supports. They are deep, deliberate and complex. People do not move to places with cheaper real estate and bigger chances for obtaining social assistance; they go to the countries where real estate is more expensive and where qualifying for social assistance is more difficult then in their own country, but where income, living standards and career opportunities are higher because the companies there are more productive. And the companies in the countries to where Croatian citizens are emigrating are more productive because more capital has been invested in them, resulting in higher sales and per-employee profits and, consequently, in more room for higher wages. For this reason, only investment, or capital increase in relevant high-productivity export-oriented companies competing in the greater European and global markets, can ensure retaining and returning people within the EU single market.

In other words, people emigrated from Croatia in high numbers because there was not enough capital employed in Croatian economy; they left for the places not lacking such capital. The places with more profit and knowledge that provide higher productivity levels. *The following universal principle therefore applies: If capital will not come to the people, the people will go to where there is capital employed in more productive companies*. The expected profits and expected higher wages are not opposed to each other here. In the development process, capital and labor go hand in hand. Knowledge as a fundamental resource is integrated in both of them; when these two sources are tuned, it yields the best results for the individuals involved and for society as a whole. *The return of emigrants as a result of starting and running highly productive companies and finding jobs in productive foreign controlled enterprises can be seen as evidence of greater social benefits brought by further internationalization of Croatian companies. In addition to tax incentives for young working parents, stimulation of investment – particularly foreign investment in more productive companies that usually pay higher wages – are the best measures for retaining young people, stimulating the return of emigrants and stabilizing Croatia's demographics*.

Foreign workers and other immigrants

Hiring workers from other countries is not a new phenomenon in Croatia. At the peaks of earlier economic cycles (like in the period from 2005 to 2008), the traditional sectors such as tourism and construction were hiring workers from the southeastern parts of former Yugoslavia and Albania. They gravitated towards Croatia because of its vicinity, well-established employment channels and familiar language and culture. In the meantime, the workforce pool in Southeastern Europe had mostly dried up. At the peak of the business cycle of 2022–2023, workers from the countries of former Yugoslavia and Albania have partly been replaced by immigrant workers from the more remote countries of Eastern Europe (primarily Ukraine and Russia), Asia and other parts of the world. For the first time in its history, Croatia saw significant immigration from the places like North and South America and Africa that had not been immigration-emitting regions (Figure L-9). New forms of immigration from developed countries appeared at the same time. This primarily refers to the earlier Croatian and Bosnian-Herzegovinian emigrants returning mostly from Germany and Austria, the arrivals of highly-educated workers and managers facilitated by

international corporations operating in Croatia, and the arrivals of elderly wealthy Europeans (mostly Germans, Italians and Slovenians) owning real estate in Croatia. Such immigrants are not a new source of local workforce because they usually come to Croatia late in their careers or after their careers, after having earned enough money for buying a second home. However, their spending and investment produce benefits for Croatian economy, which is why this form of immigration should also be greeted and encouraged. A smaller portion of immigrants come to Croatia to launch their entrepreneurial ventures, as well as to work from Croatia online for their employers in other countries.

The new forms of immigration have helped establish the *digital nomads*, who have found their place in Croatian immigration and tax provisions.[8] This confirms that Croatia, due to its beautiful and well-preserved nature, real estate prices (affordable by the standards of developed countries) and, above all, the quality of life, is capable of attracting people. And all this thanks to its membership in European Union. This comparative advantage should be nurtured, while maintaining openness to foreign arrivals and pursuing a rational immigration policy.

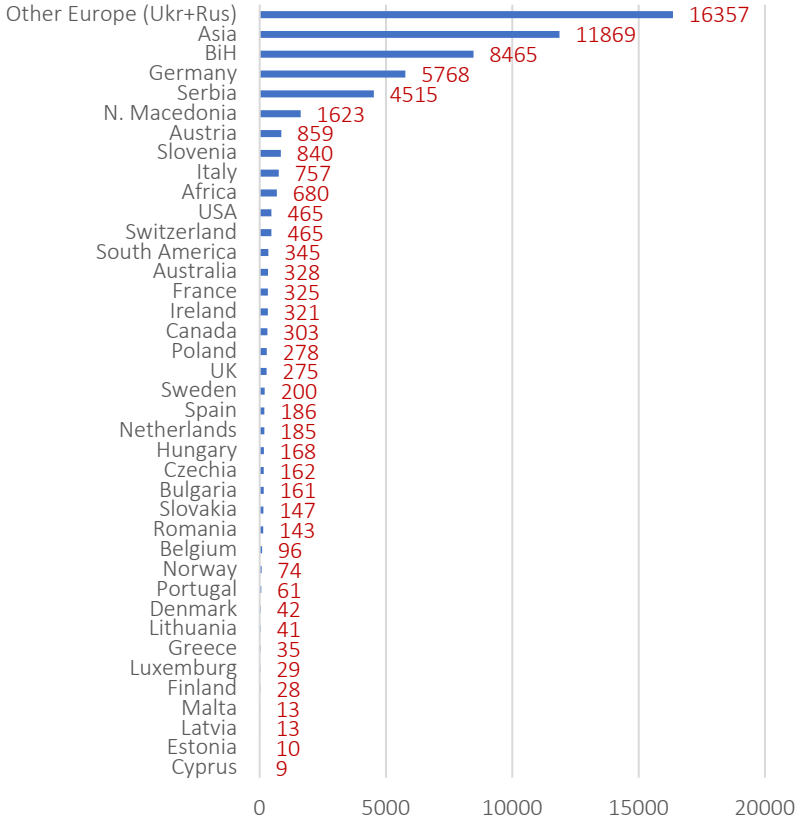
Croatia lacks concrete measures for solving the following social questions: (a) *how to maintain social cohesion and the capacity for full integration of the immigrant workers from faraway countries who come to Croatia to perform simpler jobs;* (b) *how to attract and facilitate the immigration of foreign experts with specific knowledge and skills scarce in Croatia, such as physicians and engineers of new technologies; and* (c) *how to link the quality of life with attracting a large number of relevant entrepreneurs-investors – immigrants with capital and skills who have established themselves in developed markets*.

In the context of diversification of the immigration-emitting regions (Figure L-9), it is important to notice that the motives for moving to Croatia are varied and complex and should be observed as such when appropriate policies are created. In this, specific characteristics of individual categories of people should be recognized. In the sectors with simple jobs for unskilled labor (such as tourism and catering industry, construction, trade, transport and warehousing) that lack domestic workforce, it is of crucial importance to promote social openness and racial and cultural tolerance and introduce regulations enabling – rationally and with low administrative costs – the hiring of immigrant workers in order to avoid deceleration of routine business processes. According to the Ministry of Interior, 120.400 temporary work and residence permits were issued in the first eight months of 2023 (20 percent of these being renewed permits). The low percentage of renewals means that only a small portion of foreign workers stay and work in Croatia for a longer period.[9] Permits for seasonal workers account for approx. 15 percent of all permits and the permits for new employees (the duration of their employment in Croatia yet remains to be seen) account for the remaining 65 percent.[10] As the arrivals of foreign workers are season-related to a significant extent and as a large number of these workers rotate within a year (some of them just "pass" through Croatia on their way to jobs in developed European countries), we can estimate that less than 100,000 of them (6 percent of the entire workforce) work in Croatia on average. This is still a low percentage compared to developed European countries, where higher numbers of foreign workers are employed. For demographic reasons, this percentage is expected to grow in the long run. The ageing of the population and the growing real wages will permanently attract foreign workers. Due to the cyclical

[8] Ministry of Interior: Privremeni boravak u svrhu boravka digitalnih nomada; RRIF: Digitalni nomadi.
[9] Ministry of Interior: Mjesečne statistike izdanih dozvola za boravak i rad. For the permit renewal, the labor market test is also not required.
[10] The immigrant workers from the countries of former Yugoslavia are still predominant. Workers from Nepal, India, Philippines, Bangladesh, Kosovo, Turkey and Albania are also coming in significant numbers.

(short-term) fluctuations of the economic activities, periods in which a stressed labor market will absorb much more foreign workers will alternate with periods of a lower demand for their services, when some of the job vacancies will be filled by Croatian workers. However, in the long run, the share of foreign workers will grow. For this reason, it is important that the regulations are flexible enough and that they enable filling of vacancies in timely manner and stimulate the best foreign workers to stay for good.

Figure L-9. Immigration 2022 by source country



Source: CBS

Croatian Employment Service makes the list of scarce occupations for which the employer who wishes to hire a foreign worker is not obliged to request a labor market test.[11] In scarce occupations, hiring of foreign workers is relatively quick and simple. *Quicker updating of the lists of scarce occupations on the county level should be ensured. However, by definition, labor market is national due to the assumed mobility which is also stimulated by tax reliefs for providing accommodation to the workers. The public interest of employing local population in underdeveloped counties should be effectuated by local subsidies for employment of residents and by stimulating entrepreneurship in scarce occupations, and not by unnecessarily complicating the administrative procedures for hiring foreign workers*.

The permit is issued after the work contract has been signed – in other words, after the company has borne the costs of selection and contracting. This creates risks and uncertainties for both parties to the contract and prolongs the procedure before the employment. *The rigorousness of labor market tests and administrative procedures should be either increased or loosened up, depending on the situation in the*

[11] Croatian Employment Service: Lista zanimanja za koje poslodavac nije dužan zatražiti provedbu testa tržišta rada.

economic cycle and labor market, in order to accelerate the market fluctuation of workers during cyclical upturns or decelerate it during cyclical downturns and troughs in order to protect the opportunities for hiring the local population. It is also recommended that the minimum duration of employment in Croatia required for issuing long-term permits to the best foreign workers intending to stay in the country be shortened from 5 to 3 years and that such long-term permits be issued directly to workers and not to their employers. Courses of English or Croatian languages for the immigrant workers who do not speak English should be stimulated. *Administrative procedures for issuing the permits should be standardized and accelerated by improving the organization of administration and by digitalization. This is because the practice has shown big differences in administrative procedures, resulting from different capacities of individual regional offices of the Croatian Employment Service and their different workloads*.

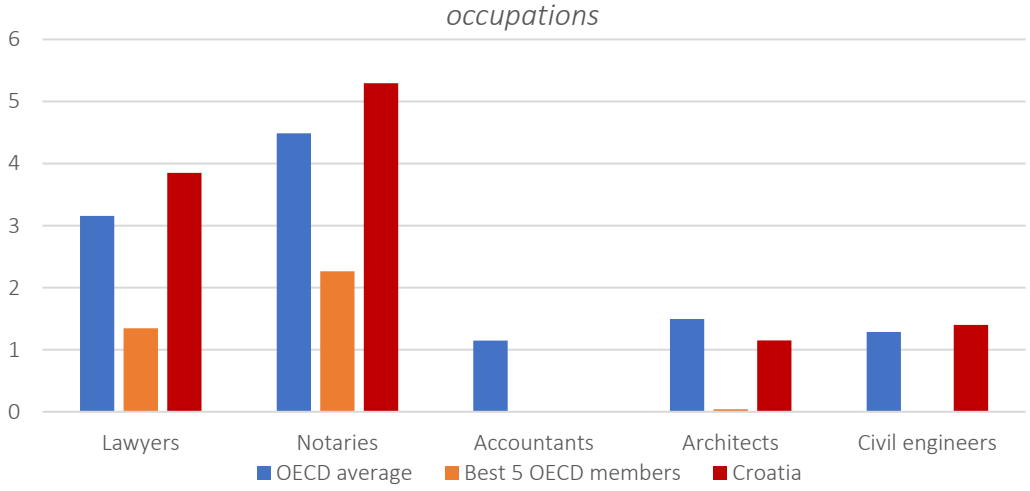
Immigration countries such as Austria and Germany have ministries, offices or agencies dealing with various aspects of the economic and social integration of immigrant workers in a coordinated way. Issuing permits and facilitating education with an emphasis on learning languages are but one segment of their activities. The problem of integration comprises much more than just the problem of integration in the working environment. The cultural integration includes a more extensive integration in the life of society. *Croatia also needs an institution or coordination that would implement an active policy of integration of immigrants in the life of society*. Such an institution or coordination must not be occupied only with the integration of immigrants coming from faraway countries and cultures and performing simple jobs in Croatia. Equal attention should be paid to attracting and integration of experts who, due to their language and learning skills, tend to integrate more quickly and easily wherever they come. Other problems are involved in the immigration and employment of experts, all of whom speak English and therefore have no language problems. Formal recognition of their degrees and professional licenses is one example. According to the OECD data (Figure L-10), the regulation of professions in Croatia is still restrictive, except for accountants. *It is essential to accelerate and liberalize to the maximum extent possible the procedures for recognition of degrees and professional licenses of the experts coming from the countries where educational and professional institutions have solid global ratings, equal or higher than their Croatian counterparts. Immigration of experts should be encouraged, particularly in scarce occupations (e.g. engineers in some professions, physicians and nurses). In general, the government should stimulate the immigration and integration of foreign experts with its policies*.

The somewhat neglected and statistically least known dimension of immigration is the immigration with entrepreneurial and investment motives. This form of immigration has development potential if the immigrant entrepreneurs are bringing with them their capital, ideas, knowledge and practices from the developed markets where they gained their entrepreneurial experience and where their capital was created. This does not apply to digital nomads (among others), because they are mostly self-employed or working for foreign employers. This is about the immigration of entrepreneurs and investors with large amounts of capital and entrepreneurial skills. Their immigration will expand the sector of foreign controlled enterprises which is usually more productive, pays higher wages and is more export-oriented.

When developing incentives for attracting individual entrepreneurs–investors, care should be taken to avoid the risk of contaminating the program with the arrivals of wealthy immigrants who would not stay, carry out entrepreneurial ventures and provide jobs in Croatia but would try to buy their regulatory status within the EU framework. This generally does refer to non-EU citizens. For tax-related and other business reasons, these nomad capitalists or nomad investors – as they are often called – sometimes use countries offering special programs for such entrepreneurs. Citizenship is offered to them only in small

and remote island states. Such programs should be avoided. Residence, however, is offered by serious countries, too – provided they invest certain amounts of money and meet the business criteria. Even some EU member states nurture such practice, with mandatory minimum investments ranging from EUR 250,000 in Greece and EUR 285,000 in Portugal to EUR 500,000 in Spain and EUR 512,000 in Bulgaria. These amounts are rather small; they do not guarantee starting of serious entrepreneurial activities and they raise doubts about the investors' motives as countries usually offer quick (3–9 months) administrative procedures for obtaining residence, which often includes family members. The questionable motives of the residence permit applicants and absence of any tangible results induced the Irish government to cancel the ten-year-old Golden Visa program and its mandatory minimum investment of EUR 1,000,000.[12] But these open questions should not induce Croatian authorities to give up the measure dubbed by us *immigrant entrepreneurs program*. The problems observed when similar programs were implemented in other countries can be used for learning from mistakes. Laying emphasis upon the *immigrant entrepreneur* concept signalizes the intention that Croatian *program for granting permanent residence to foreign entrepreneurs should be based on investing substantial amounts of capital (the minimum investment being EUR 1,000,000) in a Croatian company, providing that public interest such as hiring a certain number of workers and/or launching export of goods or services is met. The complementarity of public interest on the one hand and the motives of immigrant entrepreneurs on the other can also be achieved by granting permanent residence to foreign entrepreneurs whose projects qualify for the incentives under the Investment Promotion Act that will be discussed in detail in the final chapter*.

Figure L-10. Stingency of professional regulation in selected occupations



Source: OECD Product Market Regulation

The appeal of living in Croatia's Adriatic region for tourist, real estate investment or nautical reasons – well-known globally – can be yet another motive for large entrepreneurs to invest and reside in Croatia. However, for the *immigrant entrepreneur* measure to yield results, Croatia should transform into a country recognized as an attractive investment destination, not just tourist destination. More on this can be found in the chapter on administration efficiency and investment attraction. We will merely point out here that the immigrant entrepreneur program as such will not yield results if Croatia fails to improve the efficiency of its public administration and management of state-owned enterprises and create a predictable and stimulating regulatory framework. *Some of the barriers to non-EU citizens arriving in Croatia include complicated procedures,*

[12] Source: Citizenshipinvest.com.

lack of easy-to-understand information about the conditions for obtaining residence in the country, and slow administration – something the immigrant entrepreneur program should also deal with.

Internal workforce reserves: state-owned enterprises and the unemployed

Hiring immigrant workers as the single flexible short-term source of labor in the conditions of a constricted labor supply is not enough to meet the labor demand. The administrative and social capacities for inclusion of a large number of foreign workers in a short time are limited. This is why another option should be considered – meeting the labor demand by workers from stagnant and less productive industries and companies, who undergo retraining and move to the growing, highly productive industries and companies.

Such transitions take place daily in the labor market. They are part of the open competition in the market, where employers seek new employees. However, in the case of the public sector, such transitions are not spontaneous. The number of employees and wages in the public sector are not a result of market signals but political negotiation. This can lead to a disproportion between wages and the marginal productivity of labor. Only after the restructuring of the parts of the public sector with surplus manpower can the transitions and retraining in question begin.

The restructuring of the public sector can be carried out by improving management and organization and ensuring technological progress based on digitalization and other methods reducing labour requirements due to employment of capital equipment and higher productivity of labor. This is why the upcoming OECD accession and the application of best principles of corporate governance in state-owned enterprises should be used for professionalization and depoliticization of these enterprises, thus strengthening the motives for optimizing the number of employees. However, it is not easy to establish if there is surplus of employment in the public sector at all and – if so – in what parts of it. International comparisons can offer a basic insight into the segments with surplus manpower and the extent of this surplus. Analysis in the remainder of this section has confirmed that surplus manpower is probably found in only one isolated segment of the public sector – state-owned enterprises.

The source of data is Labour Survey. The Survey reports on the number of employees in the sectors owned and controlled by the government. The analysis includes five sectors. In the first three of them, employment is predominant in public administration and in services like defense, security, administration, health care, social welfare and education. These are public services which are mostly provided by ministries, agencies and public institutions like schools and hospitals. The remaining two sectors are the ones where employment in state-owned enterprises is predominant:

Public institutions and bodies

- Public administration and defense; compulsory social insurance
- Education
- Health care and social welfare activities

Public and state-owned enterprises

- Electricity, gas, steam and air conditioning supply
- Water supply; sewerage and waste management

There were 416,000 employees working in these five sectors in Croatia in 2022 (a vast majority of them in public sector entities). The number of employees in individual sectors is compared to the number of inhabitants in such way that the number of inhabitants is represented as the numerator. The ratio of the

number of inhabitants and the number of employees in the public sector shows how many inhabitants are served by one employee in the public sector. The higher the ratio, the higher the efficiency of labor in the public sector: there are more inhabitants per employee. But a very high ratio can mean that that part of the public sector is underemployed. Underemployment can affect the quality of a public service. On the other hand, a low ratio – a small number of inhabitants per employee in the state sector – can be an indicator of overemployment, but also of a higher quality of public services.

For the above-described interpretation to make sense, the countries Croatia is compared with must be of a similar size. A comparison of efficiencies was made for Croatia, Slovenia, Slovakia, Ireland and Denmark. These are the countries of a similar size, with populations ranging from 2.1 million (Slovenia) and 5.9 million (Denmark).[13] The size of the population is relevant; otherwise, the distribution of fixed costs over a large number of people in populous countries could create a semblance of a possible efficiency not achievable in less populous countries. In addition to their populations, it is the geographical vicinity, political history and level of development that make Slovakia and Slovenia relevant for the comparison. As for Ireland, we use it as a source of approximate indicator values for a highly developed and efficiently organized state known by consistent use of the Anglo-Saxon principle of a relatively small state sector. In order to create a balanced picture, Denmark was also included in the comparison: it is another developed and well-organized state, but this one consistently uses the Scandinavian principle of a rather large state sector.

The results shown in Figure L-11 indicate inefficiencies of the sectors dominated by state-owned enterprises in Croatia (power and water supply). The poorest (lowest) ratio is found in the water supply and waste management sector. In contrast to this, the efficiency of the employees in public administration and defense in Croatia approximately corresponds to the indicators in Ireland, Denmark and Slovenia (Slovakia is lagging behind Croatia). Croatia boasts a higher efficiency (with a relatively lower number of employees compared to the number of inhabitants) in education, health care and social welfare sectors. Where it lags behind in terms of the number of employees is – particularly – in health care and social welfare sectors, which is consistent with the earlier presented reports on the informal role of middle-aged women in providing such services in the family, which deters their participation in the labor market. It can be assumed that the advanced-aged women's traditional role in care arises from inadequacy of the public and private professional care services. This is why, in the future, the number of employees in this sector will probably grow due to ageing population (growth of the demand for health care and social welfare services), the tendency to reach the social and health-care standards of the developed EU countries, and higher participation of new generations of women in the labor market (in their careers, which they will not give up in their early advanced age).

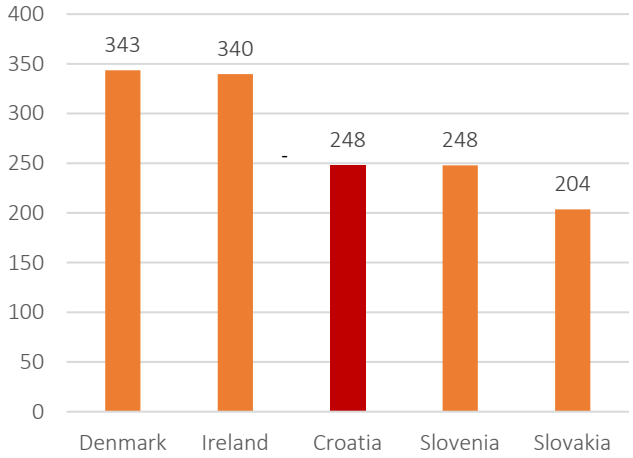
The indicators shown here are only basic and should be interpreted with caution. They are not sensitive to the value (quality) of public services. It is this factor that probably justifies and causes the physically lower efficiency (a relatively higher employment in health care and social welfare sectors in developed countries). However, this does not mean that some conclusions cannot be drawn from the ratios presented here. This particularly applies to the large difference recorded in water supply and waste management sector (in Croatia, 1 employee serves the smallest number of inhabitants). This is why there is an indication of surplus employment in state-owned enterprises. As for the more strictly defined public services financed from the consolidated central budget, such as education, health care and public administration, there are no such indications. *The implementation of the OECD's recommendations that*

[13] In 2002, Ireland had a population of 5.1 million, Slovakia 5.4 million, and Croatia 3.9 million.

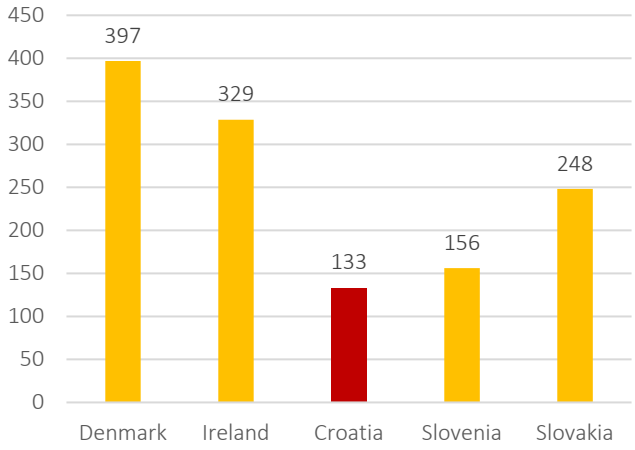
the state-owned enterprise management be improved should be used for a more reliable identification of surplus employment in state-owned enterprises and for their retraining, so that they could make their contribution elsewhere in the economy in a more productive way.

Figure 11 Population per 1 empoloyee

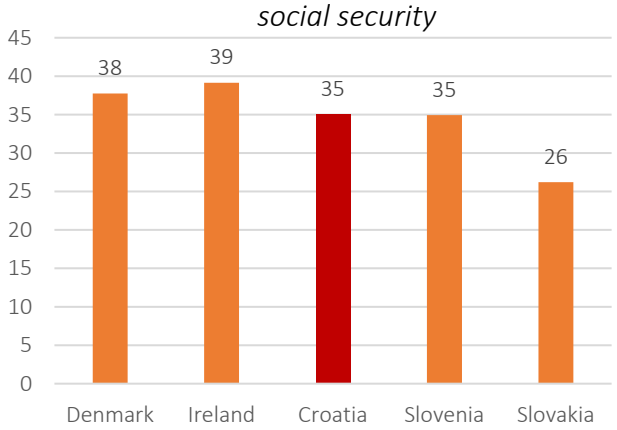
a) in electricity and gass production and distribution



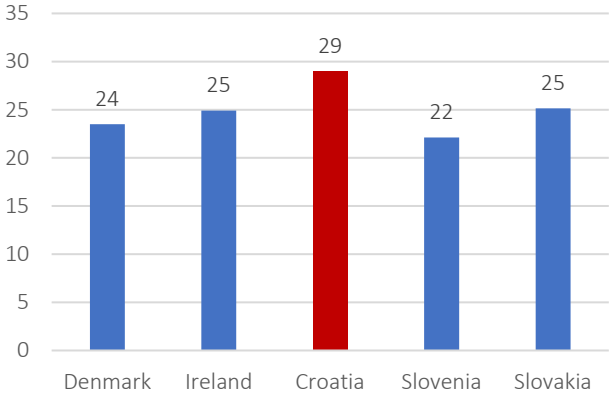
b. in water supply and waste management



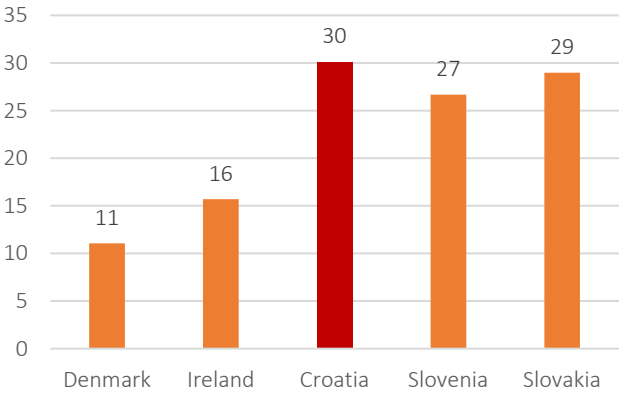
c. in public administration, defense and social security



d. in education sector



e. in health and care



Source: Eurostat, Labour Force Survey, own calculations

The relatively small number of employees in Croatia's health care, social welfare and education sectors can partly be explained with a relatively low private supply of this type of services. This is reflected in the share of private-hospital beds in the total number of hospital beds: 2 percent in Croatia, 7 percent in Denmark and 11 percent in Ireland.[14] Similar small shares of private sector are also found in other sectors offering traditional public services such as education. It can be inferred that strengthening of the private supply of health care and education services has become a necessity in Croatia. *Stimulation of the private supply of health care, education and care services by elimination of regulatory barriers and stimulation of private investment is one of the segments where higher added value is created and which could be of interest to acclaimed foreign investors given the expected growth of demand in the context of ageing population and expansion of education*.

Further in the text we analyze the role of state-owned enterprises in our sample of 12,712 large companies with annual profits exceeding one million euros, discussed in detail in the first analytical chapter. In 2022, there were 326 relevant state-owned enterprises with minimum annual revenues of one million euros in Croatia. These 326 relevant state-owned enterprises do not include enterprises with mixed state and private ownership such as INA d.d. There are 312 relevant mixed-ownership enterprises with a total of around 44,000 employees. Enterprises fully-owned by the government employed 86,282 workers in the sample of relevant enterprises (accounting for approx. 90 percent of employees in the overall state-owned enterprise sector and 12.8 percent of the total number of employees in the entire segment of 12,712 relevant Croatian enterprises). The remaining 7,000 or so employees in state-owned enterprises are distributed across approx. 600 small state-owned companies, mostly local public utilities, controlled by numerous units of local government. Individually, such enterprises do not reach the annual revenue of one million euros.

In 2022, 326 large state-owned enterprises recorded EUR 7.2 billion-worth sales revenues. Of this, EUR 411 million (6 percent) was earned from sales in foreign markets. It is about twice as little as their share in employment. This is why the average size of a relevant Croatian enterprise – when measured by annual revenue per employee (EUR 83,000) – is about twice as small as the average size of enterprises in the total sample of large enterprises (EUR 177,000 per employee) and about three times smaller than the average size of large enterprises with a foreign ownership component (EUR 260,000 per employee). One of the reasons for the observed differences lies in the fact that state-owned enterprises were not created for exporting but for servicing the local market. Of the 326 relevant state-owned enterprises with revenues exceeding one million euros, only 55 of them earn some sort of revenue in foreign markets. Their share in the total export of the large enterprise sector is negligible (approx. 1 percent). However, large state-owned enterprises have a high value of capital and reserves – EUR 17.8 billion (approx. 30 percent of the total capital of the sector of large Croatian enterprises). This means that state-owned enterprises engage abundant factors of production – capital and labor – but not very efficiently. It is, however, very hard to assess accurately the scale of their inefficiency as it is difficult to compare the efficiency of private enterprises which maximize their profits and the one of state-owned enterprises that have other goals.

If we used analytical shortcuts – e.g. if we claimed that an average state-owned enterprise, should it have twice as little employees (approx. 40,000 workers less than the existing number – approx. 86,000), would approach the revenue-per-employee ratio predominant in the entire sector of large Croatian enterprises – we would probably be wrong. Some large state-owned enterprises, such as HEP, have high, technology-driven fixed costs manifesting in a high value of the capital employed. Their capital also binds

[14] Source: Eurostat.

a fixed cost of labor somewhat higher than the average in other relevant enterprises. The earlier mentioned different mandates, or goals, can also limit the labor productivity in state-owned enterprises. Nevertheless, figures indicate that there may be a surplus of 20,000 employees in the state-enterprise sector. These workers could be more productive on other jobs. These jobs could be in market-oriented enterprises, but also in other segments of the public sector where there is a shortage of workforce.

A good example is current introduction of a new model of electronic road-toll system. Some 900 employees currently work in toll booths.[15] The new toll-collection system will change the labor demand in HAC and ARZ: instead of workers performing simple cash toll transactions, programmers and engineers will be needed. This will create other social benefits, such as lower fuel consumption and lower pollution around toll booths, and lower demand for cash for toll payments. However, if we keep in mind the famous Samuelson's metaphor that a society with limited resources must choose between guns and butter (because production of butter cannot be transformed into production of guns overnight and with no costs), it is the sixty-four- thousand-dollar question if toll-booth workers can soon be retrained to work in the social welfare sector where additional workforce is needed (retraining is probably not possible). However, good human resources planning and management can work it out, too, in a long run, in order to increase the supply of workers with adequate skills in the market.

The problem of inefficient state-owned enterprises has been observed by the European Commission and OECD. Improvement of state-owned enterprise management is a part of the National Recovery and Resilience Plan. In the OECD's latest Croatia report for 2023, the following is said: *Experience among OECD countries suggests that SOEs can be particularly vulnerable to being used for the advantage of political and private interests through weaknesses in governance, for example lack of oversight, poorly defined performance indicators, or lack of autonomy of boards. In Croatia, indicators of politicization include changes in government frequently leading to changes of SOE boards, public controversies about appointments of senior positions, and high-level corruption cases involving SOEs. Such weaknesses are likely to contribute to broader corruption perceptions.*[16] We expect that surplus employment will be found in organizations with the above-described characteristics.

The problem of low labor productivity in the sector of state-owned utility companies was also observed by the World Bank in its economic memorandum – a report entitled ***Laying the Foundations: Boosting Productivity to Ensure Future Prosperity in Croatia***. According to this report, presented in 2023, the water supply and waste management sector showed the biggest departure from the productivity criterion (value added per worker) in Germany among all the sectors of Croatian economy analyzed in it.[17]

It can be concluded from the observations of experts from leading international institutions that our rough estimate of a surplus employment in the state-enterprise sector is quite correct. This is an important short-term internal reserve of labour supply. However, in order to release the capital and labor employed in state-owned enterprises and allocate them in an optimal way to the sectors and companies where they will create a higher added value, *it is necessary to modernize, professionalize and coordinate*

[15] https://www.tportal.hr/vijesti/clanak/doznali-smo-sto-ce-biti-s-radnicima-nakon-ukidanja-naplatnih-kucica-ali-i-kolike-su-kazne-za-svercanje-foto-20230407

[16] OECD Economic Surveys Croatia, p. 90.

[17] Svjetska banka (2023): Croatia Country Economic Memorandum, Overview, p. 6.

the system of management and governance of state-owned enterprises, while emphasizing professionalization, independence and coordination of the human-resource management functions in order to implement the retraining program.

Also, by adopting its National Recovery and Resilience Plan 2012–2026, Croatia committed itself to improve its state-owned enterprise system. Its sub-component C.24 envisages revision of the list of enterprises of special state interest, improvement of corporate management in state-owned enterprises, strengthening of governance capacities, and partial privatization.[18] In 2021, the government also adopted the Action Plan for Implementation of OECD Recommendations in the segment of state-owned enterprises. The Plan's effects are not known because, at the moment of writing of this report, the program's evaluation had not been published yet.

Even if the OECD's principles of good governance in state-owned enterprises were implemented momentarily, the question is if the labor market institutions have sufficient capacities for retraining of employees in order to reduce the duration of their unemployment. These capacities depend on the entire *labor market ecosystem* – active involvement of enterprises and of mediators, including providers of workers' education services. The entire labor market ecosystem should be strengthened. One possible measure – of comprehensive importance, because it can help finding jobs for some of more than 100,000 unemployed persons – includes tax incentives for participation of enterprises in covering costs of education. If an enterprise wishes to choose its employees among the candidates who are to attend an educational program (because the best way to discover potential candidates is through education), payment of the costs of such program for non-employees will be considered a second income and will therefore be liable to taxation and contributions. It should be the other way round: such educational programs should be stimulated so that investment in education can be used as part of the process of finding the best candidates. It is recommended that tax incentives be extended to include payments for education of non-employees.

Skills gap and education

"Lack of coordination between education and the needs of the labor market" is a well-known phrase in Croatia – to such an extent that, together with the syntagms "structural reforms" and "knowledge-based society" – it has become imperceptible. Even worse than that, deprived of comprehension and true meaning. Some believe that Croatia needs more programmers and engineers (generally in STEM disciplines: science, technology, engineering and math). Such knowledge is a prerequisite for new technologies and growth of productivity. Others point out that, without competence in "soft" domains such as foreign cultures, languages and customs, journalism and digital media, teamwork, psychology, nurturing good interpersonal relations, and art forms, there can be no modern product design, marketing and services in the new markets the pentration of which is an imperative for economic growth. Yet others believe there is no growth without good management, which includes leadership, persistence, vision, creativity, and competence in project and business process management. We should also not forget the principal skills of the managerial and macroeconomic analyses lying behind key business decisions. However, economics education in Croatia is still far on Europe's outskirts. Acclaimed international business schools – long present in Warsaw, Budapest, Prague and other Central and Eastern European capitals – still do not provide their services in Croatia. Top managers in Croatia's leading companies are mostly

[18] Nacionalni plan oporavka i otpornosti 2021.-2026., pp. 694-708.

foreigners or local people who educated themselves in foreign centers or acquired their business experience and built their careers at major international corporations. For the same reason, the public sector is deprived of top managerial competencies. Limited wages and rewards for the results prevent it from attracting good and experienced managers – something that, together with omnipresent political pressures and criteria – favors negative selection. *The public sector should introduce new mechanisms for rewarding results and attracting managerial talents*.

The problem of the skills gap and education is a universal one, spanning all sectors. It is much discussed in Croatia but there is no clear and focused program and measures in place that would solve it effectively.

The wider repercussions of the skills gap can be seen in Eurostat's comparative statistics of job vacancy rates.[19] Figure L-12 shows average job vacancy rates in the period from 2018 to 2022.[20] In the five-year period observed, Croatian economy recorded one of the highest growth rates in the EU, so it is to be expected that structural imbalances between the demand and supply of knowledge and skills in the labor market would have crystalized in this period. They can be identified by comparisons with the identical data submitted to Eurostat by the countries similar to Croatia. Unfortunately, as Slovenia, Ireland and Denmark – used in our earlier comparisons – do not submit their data to Eurostat, we had to make comparisons with Estonia, Latvia, Lithuania, Hungary, Slovakia and Romania (CEE-6)[21], as well as with Finland and Sweden (SCAN-2).

The differences in job vacancy rates shown here reflect current differences in the economic structures of individual countries and the situation in their respective labor markets. Scandinavian countries have much higher job vacancy rates than Croatia and CEE-6. Croatia has a similar rate like CEE-6, indicating that the situation in Croatian labor market has manifested no special features in the past years. As Finland and Sweden are more advanced economies compared to the other ones in the picture in terms of technology and organization, this clearly confirms that the thesis that technological progress pushes workers out is completely wrong. The Scandinavian experience shows that technological progress increases the demand for workers – only the character of the labor in demand has changed. The examples of Finland and Sweden show that the biggest shortage of workforce is found in the block of sectors under the umbrella name of *business service sector*. It includes ICT sector (with the job vacancy rate in SCAN-2 as high as 4.0 percent), professional, scientific and technical activities (2.9 percent), administrative and auxiliary service activities (4.6 percent), and artistic, recreational and cultural services (2.9 percent). In contrast, the biggest shortage of workforce in Croatia is found in tourism and catering industry (3.3 percent) and – like in Scandinavia – in administrative and auxiliary service activities (2.9 percent). Croatia's ICT sector records an unusually low job vacancy rate (0.5 percent), which means that the demand for workforce in this sector has dwindled.[22] Clearly, further development of the ICT sector requires a new boost in demand. This will be discussed in the following chapter on digitalization. The relatively small number of vacancies in Croatia's finance and insurance sector is a result of cost-related and consolidation pressures,

[19] The number of announced but still vacant jobs compared to the total number of employees.

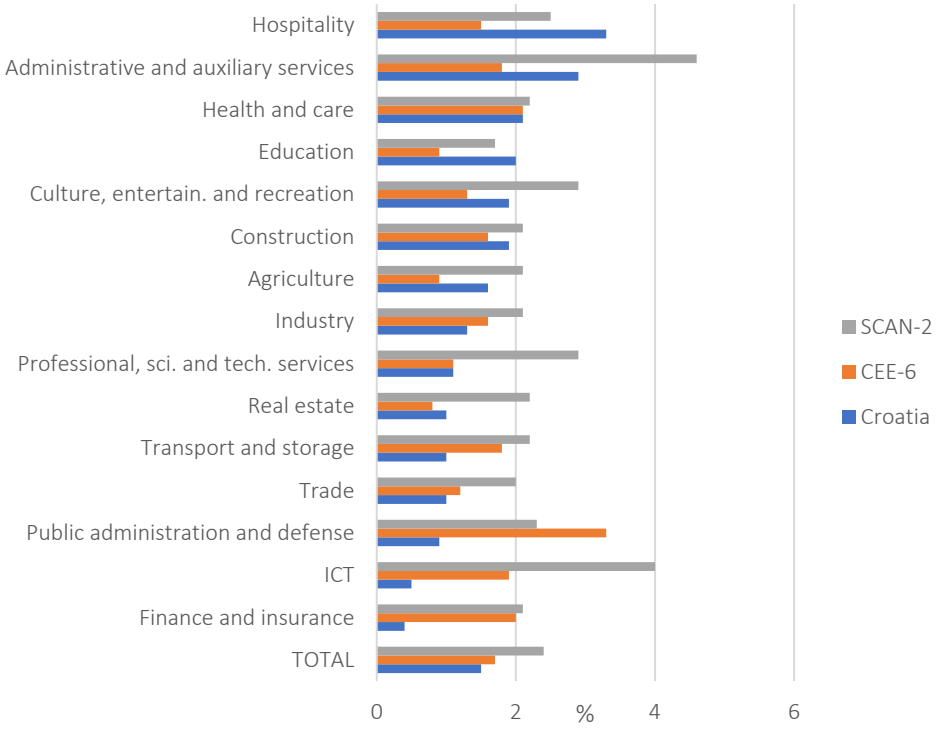
[20] The use of a five-year period ensures that the indicators are of the annual character, so that annual variations would not be manifested.

[21] Eurostat also provides data for Czechia. However, we did not use this country in this comparison because it has an extremely high job vacancy rate (10.5 percent) which is in total contrast with the data for every other country. Czechia's inclusion in the sample of CEE countries would thus make the average statistically insignificant.

[22] According to the latest data, the ICT sector is still recording a high growth rate of the number of employees – between 5 and 6 percent.

poor growth of financial markets, and an undeveloped capital market in a highly-regulated sector that has been recording reduced numbers of employees for years owing to the pressure of technological changes and the imperative of efficiency. *The capital market development should be one of the main policy goals in the upcoming period. This is also one of the key recommendations of the OECD*.

Figure L-12 Job vacancy rates, average 2018-2022



Source: Eurostat

The comparison suggests that the following two subjects should be observed separately: one is the problem of meeting current demand for workforce (the essence of this problem is outlined in Figure L-12), and the other is the problem of a long-term strategy of education and the development of knowledge and skills that would continually support the transformation of the economic structure to better serve the sectors and companies in which a higher added value is created.

Education and the demand for labour: the dual model

As the structure of Croatian economy is relatively simple and the productivity is – consequently – relatively low, the labor market problem currently comes down to the shortage of workforce in the areas such as tourism and catering industry, construction sector, and auxiliary administrative services. In addition to importing workforce, such labor market problems are usually solved with in-service training based on the dual model. The dual model of education rests on the assumption that entrepreneurs know the best what workers, knowledge and skills do they need. Entrepreneurs also know what occupations will they need in the future. In the dual model, they directly participate in the educational process by providing premises, mentorship, allowances and scholarships for practical in-service training. For companies, it is worth their while because it helps them find talented workers sooner. Croatia has recently introduced

the dual model and it is now being used in in-service training and lifelong education. [23] An in-depth evaluation of the model has not been done yet.

The activities of companies and business associations in the dual model depend on the activities and knowledge of their human resources departments and on the tax incentives motivating them to invest in the employee selection and education procedures. Currently there are tax incentives for entrepreneurs' participation the dual educational model:

- Rewards for students during their practical training, apprenticeship and dual education of up to HRK 1,750 per month,
- Scholarships for students of up to EUR 560 per month,
- Scholarships for students for excellent achievements and grades, awarded to them based on open competitions available to all under equal conditions, of up to EUR 840 per month,
- Remunerations paid through high-school and university student associations of up to EUR 3,360 per year.[24]

It is in the interest of large companies with developed human resources management departments to actively participate in the dual education model. To stimulate such participation, the government should reward companies' proactive behavior towards the educational sector and young people by increasing the tax incentives and rewards paid by companies to scholarship recipients and to their employees enrolled in educational programs. This can also be achieved by increasing the factor of tax deductions for reducing the base for calculating corporate income tax.

The development of the dual education model will enable transferring of the signals of the knowledge and skills required in the labor market in an efficient way by means of companies' decisions to participate in mentorship programs. This way, Croatia will also come closer to developed EU countries when it comes to the young people's employment rate.

Education for a better society of the future

The second problem is more difficult: How to ensure the development of knowledge and skills which are to stimulate the modernization of the economic structure to better serve the industries with higher added value and productivity? The data for Finland and Sweden in the picture above also outline Croatia's future: (1) there are not many sectoral specificities as far as job vacancy rates are concerned (workers are needed in all sectors); (2) the biggest gap is found in the modern sector of business services which includes ICT, professional, scientific and technical services, administrative and auxiliary services, and art, entertainment and recreation.

The bad news is that Croatia can expect an even bigger skills gap in the future because it is lagging behind in the field of higher education.[25] In terms of the share of highly educated people in the overall population, Croatia is at the bottom of the EU list, with only Romania and Italy behind. What causes particular concern is the fact that, in the past decade, Croatia has failed to increase the share of the highly educated with the dynamics achieved by more competitive member states (Figure L-13).

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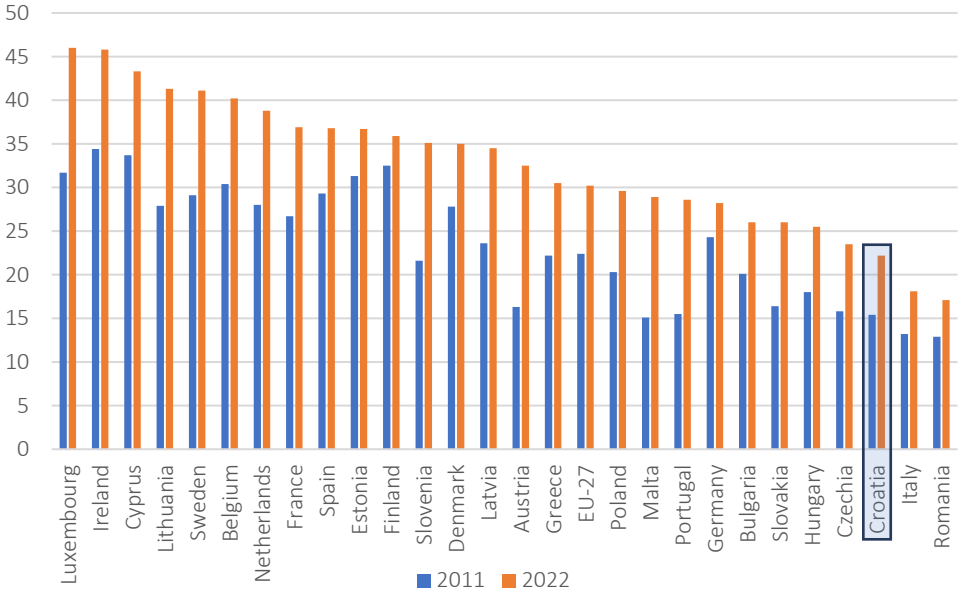
[23] Ministarstvo znanosti i obrazovanja, Model hrvatskoga dualnog obrazovanja (2018).
[24] Source: RRIF.
[25] Tertiary education, according to ISCED 5-8 classification.

Figure L-13. Share of population 15-64y with tertiary education in %



Source: Eurostat

Despite the fact that younger generations are better educated,[26] the change is so slow that the generational change will not have any substantial effect on Croatia's position shown in Figure L-13. Most other member states have been changing their shares of the highly educated more rapidly. Croatia's trends differ not only from those in developed countries – which, despite the already high levels of education of their populations – are still increasing their shares of the highly educated (Luxembourg, Ireland, Cyprus, Lithuania, Sweden, Belgium, Netherlands and France) – but also from those in the countries that, after lagging behind until 2011, managed to make substantial progress in the past decade (Slovenia, Austria, Malta and Portugal).

Croatia's slow pace could be a result of an inadequate supply of programs in the segment of higher education, but also of the factors behind an inadequate demand for higher education. According to the latest data in *World Development Indicators* – a World Bank database – as much as 72 percent of young people in Croatia enroll tertiary education programs. This is more than in Slovakia, France, Lithuania, Poland, Hungary, Czechia, Portugal and Italy, but still not enough for the upper half of the EU list. On the other hand, the suspicion that the supply of educational programs is inadequate has some support in anecdotal information about the rigidity of Croatia's public academic sector (public universities). The academic sector is too slow in transforming the program supply in the public segment. In addition, Croatia also has a relatively low share of private institutions of higher learning. Places in many programs at public institutions of higher learning are not filled up. Croatian universities and faculties are not placed high on the rank-lists of quality in Europe and the world. There are honorable exceptions – both in the category of individuals and in the category of departments – but not on the university level. In such conditions, it is possible that some of the students fulfill their needs for advanced education either

[26] In the population between 30 and 34 years of age, those with higher education account for 34.2 percent. However, this is still lower than the overall shares of the highly educated in the working-age population in Luxembourg, Ireland, Lithuania, Sweden, Belgium, Netherlands, France and Cyprus.

abroad or by studying online and attending internet courses. Knowledge and the methods of its transfer are nowadays easily available and affordable online.

Using the Eurostat data on the use of internet, we have examined the hypothesis that the problem primarily lies in inadequate supply and not in weak demand. If Croatia ranked higher among the European countries in the use of the Internet for educational purposes than it did in the general indicators of education of its population and in the use of the Internet for everyday purposes (such as exchanging messages), then the hypothesis that the problem is in the supply and that the demand is thus being met by means of alternative channels would have a firm foothold. To identify the answer, an indicator was constructed, showing the average share of the survey respondents who were using the Internet for educational purposes (Figure L-14).[27] We compared the indicator with the share of the respondents using the Internet for exchanging messages. The data refers to 2021. Croatia's ranking is similar to the one in the picture showing the share of the highly educated: with the share of the respondents using the Internet for educational purposes being 16.2 percent, Croatia is ranked lower than every EU member state except Bulgaria and Romania. The result cannot be explained by a generally low use of the Internet because, when the intensity of the use of the Internet for exchanging messages is observed, Croatian respondents are as active as the citizens of the developed EU member states. Accordingly, while there are prerequisites in Croatia for a more extensive use of digital formats for educational purposes, the Internet is nevertheless not being widely used for these purposes.

Figures L-13 and L-14 show correlation between the general share of the highly educated and the use of the Internet for educational purposes. This is supported by the very good results of Slovenia, Austria and Portugal shown in Figure L-14 – these are the countries that have made a very good progress in the segment of higher education in the past decade. Obviously, these countries recorded an increase in the general demand for higher education, both in the official educational system and online. Their experience confirms that the inherited conditions can be changed. If we add to these countries Malta as the fourth country that made a marked progress in terms of the share of the highly educated, we will be able to see that this group of countries is characterized by a high share of tourism in their GDPs. This means that a developed tourist sector is not an obstacle for expansion of higher education. Clearly, Croatia has yet to experience a major change on the side of demand for higher education. *This is why a national program for the promotion of higher education should be launched – the one that would not only address the usual methods for achieving excellence on the side of supply of educational services but that would also stimulate the demand for higher education services by means of an educational campaign that would explain the close connections between higher education, incomes, and duration and quality of life*.

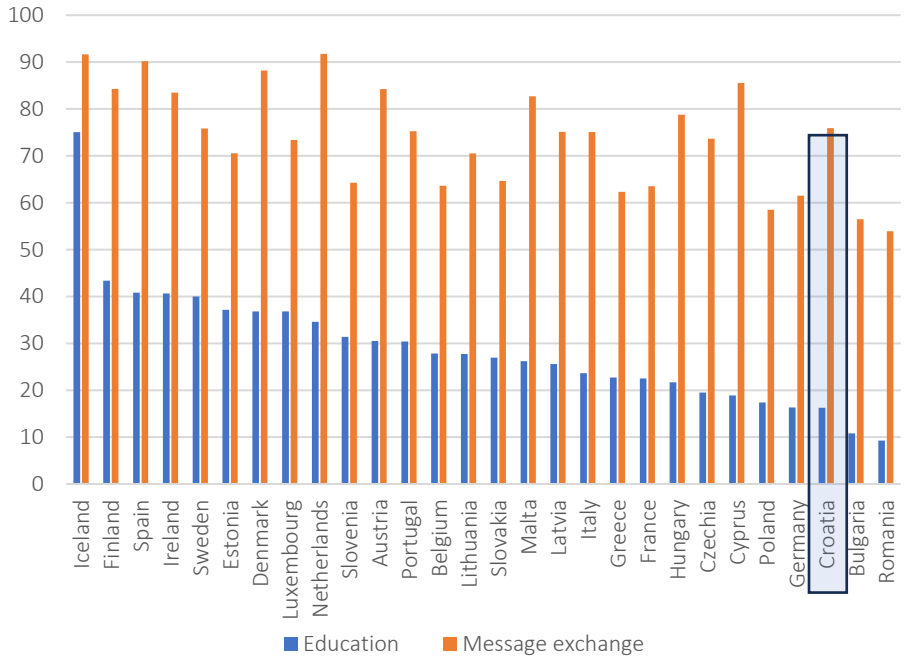
The fact that Croatian citizens create a relatively low demand for higher education services is confirmed by Croatia's lifelong learning score: the country is at the bottom of the EU, with only Greece and Bulgaria behind (Figure L-15). In the four weeks preceding the survey in 2022, Croatia had a share of 4.4 percent of those included in lifelong educational programs – around five times less than Slovenia's share and around eight times less than that of Sweden as the leading country.

The problem of higher education and lifelong education in Croatia will probably turn out to be the key limitation of the country's future growth and development. Prognoses of occupations and skills of the future indicate a growing complexity of the skills and knowledge expected to be required for working in

[27] Average participation in online courses and use of online materials for learning.

a modern economy and for participation in the public life of a democratic society. The following is expected: a growing use of IT tools in most professions; a growing need for learning a number of languages in an internationalized economy; a decrease of routine work and an increase of problem-oriented teamwork; and growing demands for self-reliance and creativity. This particularly applies to the export-oriented sectors and companies in the single market, in the sectors and companies creating a higher added value. For this reason, the desired convergence of incomes towards the European average cannot be imagined without strong expansion of higher education and lifelong education.

Figure L-14 % of population using internet for educational purposes and for exchange of messages in 2021



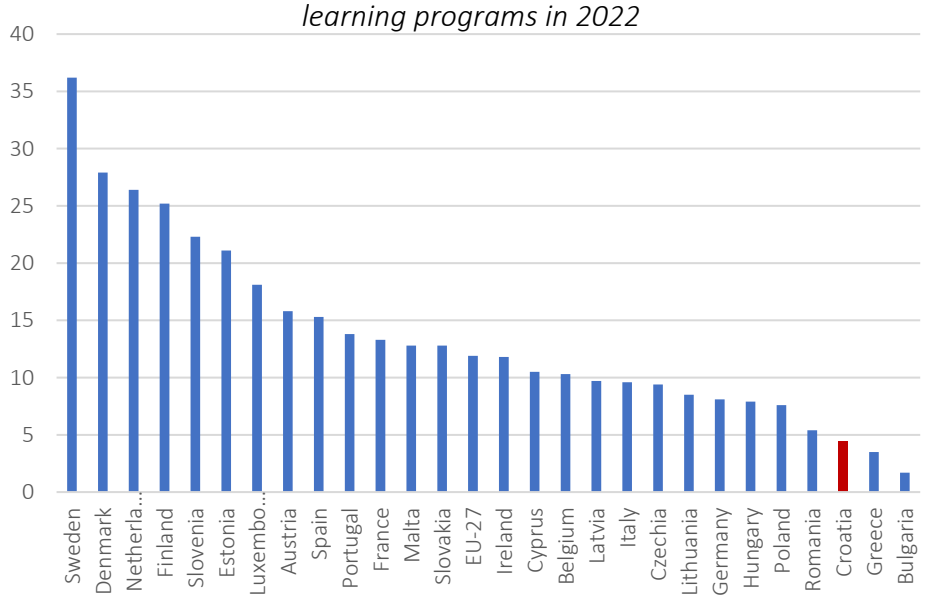
Source: European Commission, DESI

Although extensive knowledge of foreign languages does not specifically belong to higher education, underlining this is very important. In terms of the share of its high-school students who learn two foreign languages (93 percent), Croatia is currently ranked only behind Scandinavian countries, Estonia, Slovenia, Czechia and Slovakia and is placed among top 10 EU member states, much above the European average. When it comes to the knowledge of foreign languages, the new generations have created a significant competitive advantage. However, an earlier survey (2016) showed that the older generations stick to the EU average when it comes to speaking a second foreign language (Figure L-16). While fluency in English – even in the older generations – indeed is Croatia's advantage, it will not be enough with the continued internationalization of society and the economy. Therefore, it is essential to encourage learning of second and third foreign languages through lifelong learning programs. *Voucher and tax incentives programs in the personal income tax system should be recommended for learning foreign languages, together with the introduction of public ratings of private schools that offer foreign language courses for adults*.

The education supply cannot be adapted to the expected knowledge and skills demand on the basis of a detailed and rigid plan. It is, however, possible to develop a flexible educational system that would swiftly react to the signals from the labor market by using its rapid-adaptation capacity and its modern

curriculum. We are talking about the *dual education model being expanded to higher education in such way that students start working while still studying and that companies seek talents in the early phases of students' lives and – indirectly but actively – participate in the creation of educational programs*. Such trends will intensify as the number of young people continues to decrease due to demographic factors. Shortage of labour will force companies to intensify their competition for talents and to identify and recruit (mentor, award scholarships) – in the earliest possible phase of higher education – the individuals that suit best the needs of their vacant and expected jobs. *Companies should be offered tax incentives for all types of inclusion in education*.

Figure L-15. % of adult population included in lifelong learning programs in 2022



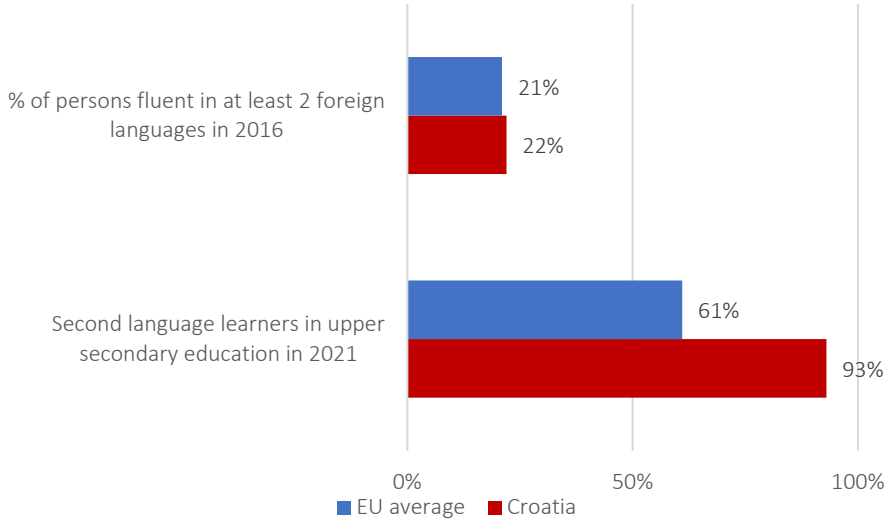
Source: Eurostat

In the new world of work, every rigid prognosis about the future needs for occupations, knowledge and skills should be taken with reserve.[28] The educational structure should be observed at the basis of premise that all expert knowledge is potentially important. The health care and social welfare sectors will see a large growth of demand for highly-educated workers due to ageing of the population; this growth will spill over onto biotechnological, food processing and pharmaceutical industries, as well as onto leisure time industry and cultural services which, in turn, will provide a wide range of sophisticated and integrated services aiming at improving health and quality of life. Finance, trade, logistics and warehousing will continue to function as civilizational infrastructure, together with transportation, energy production, real estate and civil engineering. It should be noted here that changes in these sectors will create demand for new engineer's knowledge in the segment of green building and environmental protection. Everybody will need more mathematics, statistics, and information-communication skills and the ICT sector will join the block of civilizational economic structure, just like it happened with transport and power industry during the First and Second Industrial Revolutions. In the 21st century, processing industry – particularly its parts that cause environmental load – will continue to move to the cheaper locations in India and Africa after Chinese po-

[28] One such useful prognosis is the one made by CEDEFOP (European Centre for the Development for Vocational Training).

litical and economic capacities for supporting the global industrial development shall have become exhausted in the near future. The exceptions expected to remain in the West will be the parts of the industry capable of undergoing robotization and adapting to the environment. In this segment, mostly highly educated managers and specialists and IT and other experts will remain, together with a small number of service personnel. They will all still need managers, economists, accountants and auditors, lawyers, architects and designers. Entertainment and leisure industry will permeate people's lives – something that has already been happening in a large part – and art forms and production and content communication will become crucial in social communication, sales, and product design. The share of technical knowledge in products and services in an information society will rapidly grow. Every skill – be it seemingly "simple", such as culinary art (to mention but one example familiar to Croatia's tourist industry) – will, in a matter of decades, evolve from statical knowledge being transferred via traditional channels to the constantly changing sophisticated and creative forms. Eventually, learning about learning itself – the knowledge of efficient ways of continually teaching oneself and others – will become the most important.

Figure L-16. Fluency in the 2nd foreign language



Source: Eurostat

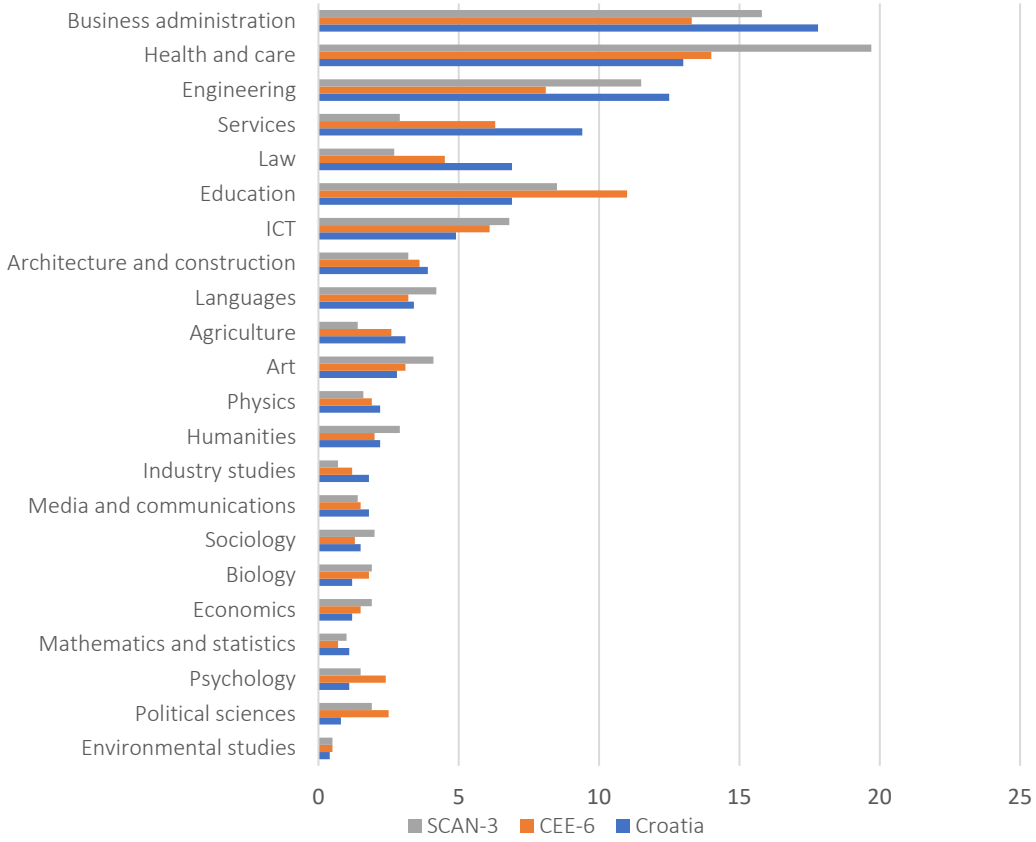
Elementary- and secondary-school education falls outside of this report because, based on some parameters from international comparisons (e.g. number of students per teacher), Croatia is doing very well. We should mention, however, the necessity to relieve the student overload, modernize subject matters, stimulate their creativity, promote learning with comprehension instead of rote learning, encourage the creativity of their teachers and stimulate rewarding of teachers. Part of the growing demand for educational services is certainly connected with the quality of elementary- and secondary-school education where the foundation for further education is formed. In this context, it is important to mention the e-School project, financed from EU funds between 2018 and 2023, within which modernization of the technological capacities of Croatian schools is being carried out.[29]

The fact is, however, that Croatian high-school students (15-year-olds) do not do well in science and mathematics when taking standardized PISA tests. In 2022, their score in mathematics was approximately the same as the one of the generation of Croatian 15-year-olds tested in 2018. They are now

[29] https://pilot.e-skole.hr/hr/e-skole/opis-projekta/

ranked around the 35th place among their age-mates from eighty or so countries of the world. With such a score, they are in the company of their colleagues from Iceland, Israel, U.S., Slovakia and Turkey. Their reading skills tested slightly worse then in 2018, but the ranking is better – around the 25th place – in the company of Norway, Latvia, Portugal and Spain. In science, Croatia has improved its ranking and is now around the 30th place, in the company of Portugal, Norway, Lithuania and Italy. However, not in one tested subject did Croatian high-schoolers exceed the OECD average. As Croatia's strategic goal is to surmount the new developmental barriers, the country should set more ambitious goals in all aspects of social life, particularly in education, and should strive to exceed the OECD or EU average. Better results and better foreknowledge will indirectly increase the demand for continuation of education.

Figure L-17. Structure of tertiary education enrollment % 2022.



Source: Eurostat

It is interesting to compare the structure of enrolments in higher education programs by disciplines in small and open economies of European Union. Croatian structure of enrolments by disciplines is being compared with the group (the average for) SCAN-3 (Denmark, Finland, Sweden) and with the group (the average for) CEE-6 (Austria, Slovenia, Czechia, Slovakia, Poland and Hungary). In Croatia, most of the enrolments are in business administration, law and services programs (the last one reflecting the local importance of tourism studies). These three leading groups of higher-education programs account for approx. 35 percent of new students, while the comparable percentages in these programs in CEE-6 and SCAN-3 are lower by 10 or so percentage points. Croatia is paying the resource "price" for such a specific allocation of new students with relatively small shares of students enrolled in ICT, medicine and care, and psychology programs that prepare them for the professions of the future. The good news is, on the other hand, that, by the structure of

students enrolled, Croatia is not lagging behind in industrial studies, engineering, architecture and civil engineering, and mathematics and statistics. These professions are also professions of the future.

The World Bank document *Laying the Foundations: Boosting Productivity to Ensure Future Prosperity* also offers an inspiration for solving the problem of education.[30] The World Bank's simulation model showed that Croatia could double the growth rate of its GDP per capita in the period from 2025 to 2060, approach the EU development average in the 2030s and even exceed it before 2050. The education reform should play a crucial role in this. On the other hand, the latest OECD report for Croatia[31] underlines the problem of inadequate demand for educational services, but it attributes it to the high cost and lack of adaptability of the programs as the characteristics of the supply. The OECD is focused on in-service education and lifelong education that should be stimulated by *strengthening the voucher program which is being introduced as part of the National Recovery and Resilience Plan and by the general strengthening of capacities and resources of the education system*.

On the one hand, it is clear that, in a long run, Croatia needs less students enrolled in economic, law and services studies and more of them in other programs. On the other hand, it is also obvious that the number of those leaving school is higher where enrolments are relatively higher than in other member states. When the structure of graduates is observed, Croatia with its share in the total population of the EU being 0.85 percent, indeed records above-proportional shares in the total number of graduates in the EU when it comes to the programs at faculties of humanities and social sciences (ranging from 1.1 percent in history and archaeology to 1.6 percent in religion and theology), management and business administration schools (1 percent), and faculties of tourism and hospitality management (1.2 percent). But the shares of graduates exceeding the shares in the total population are also recorded in mining (4.3 percent), food processing (2.3 percent), earth science (2.2 percent), environmental protection (1.1 percent) and nature (1.1 percent), and chemistry and biochemistry (1 percent). Croatia records a solid share of 1 percent in energetics and industrial engineering (1 percent each), including, particularly, electronics and automation (1.6 percent), mechanics and metals (1.7 percent), and ICT (0.9 percent, which approximately corresponds to the share in the EU population), including, particularly, database and network management (1.6 percent of all EU experts in this area earn their degrees in Croatia). The group the share of which approximately corresponds to the share in the total number of inhabitants also includes mathematics and statistics (0.9 percent), and architecture and civil engineering (1 percent); higher shares are found in agriculture, forestry, fisheries and veterinary science (1.5 percent) and textile, fashion and design (1.5 percent). On the other hand, the country is substantially lagging behind in medicine (0.5 percent), psychology (0.5 percent), biology (0.5 percent), and materials (0.3 percent). Substantially low shares (only 0.4 percent) are also recorded in two areas of economics – sales skills and accounting and taxes. All in all, the analysis has shown a high level of diversification of the supply of higher-education programs. There are disciplines in which Croatian faculties have relatively high shares of graduates compared to the number of inhabitants. Some of them are very propulsive and can play an important role in attracting foreign investment – for example, ICT, engineering, biochemistry, food processing and agriculture, mining and geology. Given the starting point described, a comprehensive reform program that would stimulate higher education (particularly the internationalization of higher-education programs) could yield reasonably short- to medium-term results.

[30] See n. 17.
[31] See n. 16.

The internationalization of higher-education programs in English language is an important instrument for improving the quality of a university. Such programs are usually taught and attended by the best and most ambitious professors and students. Such programs can retain some of our most ambitious students who would otherwise decide to study abroad. They can also attract foreign students. International programs should be particularly stimulated.

The role of the government is to inform and raise awareness about the importance of higher education and lifelong education. Its key role is creating a flexible regulatory framework for introducing the dual education model to higher education and lifelong education, accompanied by a *stimulating financial and tax framework*. The role of the government is also to create a framework for productive mutual permeation of private and public institutions in education sector and to carry out a reform of the public academic sector in order to eliminate from it political and private interests, and make it less rigid and more flexible to the signals from the labor market, thus avoiding low enrolment rates at institutions of higher learning. In order to ensure that changes and demands for new types of knowledge in markets and in other aspects of the social life are transferred to the adjustment of the educational program supply as fast and as accurately as possible, the *internationalized sector of large companies must use its human resource management departments to develop capacities for actively influencing the educational program supply and ensuring a predictable demand for services in the education sector*.

The tax framework is but one piece in the puzzle of these changes, albeit a very important one. In addition to the earlier mentioned changes in the tax treatment of scholarships, Croatian tax system also envisages a framework for the donations considered to be tax-deductible expenditure when calculating the corporate income tax base up to the amount of 2 percent of the previous year's revenues, if such donations were made for cultural, scientific, educational, health care and other noble purposes. As Croatia has a serious problem with higher education and lifelong education the scarcity of which can thwart the most important developmental goals, business donations for educational purposes can be additionally stimulated by enhancing a tax relief factor (e.g. two or more times higher), so that every euro donated for educational purposes reduces the base for calculating corporate income tax for more than one euro.[32] With a sufficiently stimulating tax framework in place, we can imagine a wave of corporate donations to private and public institutions which are not merely a part of corporate communication campaigns but are deliberately directed towards the institutions offering programs of a confirmed market value (in terms of creating the knowledge and skills needed in the labor market). We can also imagine establishing of corporate academies and similar educational institutions relying on the business sector. In order for companies' expenditure and investment to yield results, it is very important that Tax Administration removes any dilemma as regards the tax treatment of connected persons if the companies were involved in the establishing of such institutions, either directly or indirectly, through business associations or education businesses with several founders.

At the moment, Croatia has in place a tax support system for education and training that allows reduction of the corporate income tax base.[33] However, this incentive is unnecessarily burdened with bureaucratic details and different treatments of entrepreneurs, based on their size and the types of justified costs. Difference is also made between general education and special education and training. Large entrepreneurs are granted reduction of the tax base in the amount of 50 percent of justified costs in the case of

[32] With the tax rate of 18%, the factor of 5.56 would mean that one euro donated for educational purposes reduced the profit tax by one euro.

[33] Državna potpora za obrazovanje i izobrazbu, Tax Administration.

general education and 25 percent in the case of special education or training. For small entrepreneurs, these percentages are 70% and 35%. The different treatment of general and special education should be either abolished or simplified. Other provisions should also be simplified so as to include all types of education. Percentages of tax-deductible expenditure should be increased up to 100% for all companies, regardless of their size.

If Croatia manages to attract big investment that can transform its economy and increase its productivity, a substantial growth of demand for better paid experts is to be expected. This will bring into focus again the problem of very progressive taxation of higher wages. The progressive taxes and contributions have turned Croatia into an unattractive investment location in Central and Eastern Europe – particularly for investments in companies with higher value added per employee. A top expert in Zagreb, with no children and with a salary of approx. EUR 5,000, will encumber his employer with a total labor cost of approx. EUR 10,000, mostly due to social security contributions amounting approx. 31 percent of the so-called "gross salary II". No substantial universal tax relief is possible because of the structural deficit of the pension and health care systems. However, incentives for new employment in highly-productive sectors can be set in such way that, under the Investment Promotion Act, the hiring subsidies for a highly-paid expert are not limited with a low absolute amount as is the case now. This is explained in detail in the next chapter on stimulation of investment. In the context of the general labor taxation system, we should also mention the already introduced possibility of participation of highly paid experts in employee stock ownership plans. This excellent model for retaining, attracting and rewarding of key employees should be improved in such way that, instead of current net-based income taxation (leading to an increase in effective tax burden at conversion into gross terms), the general rate of 12 percent at which capital gains are taxed is applied on the awarded stocks or shares.

PUBLIC ADMINISTRATION EFFICIENCY, DIGITALIZATION AND PROMOTION OF PRIVATE INVESTMENT

Abstract

The rule of law and efficient public administration are important investment attraction and promotion factors in the innovative industries and enterprises that generate high value-added per employee. Such industries and enterprises can afford very high location costs in developed countries – something Croatia, too, strives to achieve. *This is why a business environment that supports large investment, innovation and business dynamics will be crucial for Croatia's convergence towards the average EU productivity in the years to come*.

The existing system of investment promotion and support is fragmented. It lacks coordination with the highest ministerial levels and coordination on the lower organizational levels in the public sector. The public sector is a complex, fragmented territorial system. State-owned enterprises, utility companies, local and regional government units and subjects of entrepreneurial infrastructure are active participants in it. Croatia needs projects for simplification of its regulations and those for digitalization of its public administration in dealings with the corporate sector. The country should also focus on a smaller number of large investment projects of multinational companies the investments of which substantially contribute to Croatia's productivity by using new technologies. This chapter presents recommendations for setting up efficient investment coordination and strengthening the capacities of the Ministry of Economy and Sustainable Development in order to attract targeted investment that would substantially increase value-added per employee and wages.

If the goals of regulation improvement and attraction of key investment are adequately determined, Croatia will manage to join the world's top 25 investment destinations by the end of this decade. The new investment promotion model should be integrated with the National Investment Promotion Action Plan in order to establish vertical coordination for attraction of investment and assign the highest priority to the goals of regulation improvement and attraction of key investment. The coordination is important as there is no better investment promotion than improved regulation and excellent business climate. This chapter suggests specific measures for improvement of an investment attraction and promotion model for enabling high value-added production.

When the cost-related investment promotion factors, very important for attracting investment in a situation of abundant labor supply, weaken up due to incomes and cost convergence towards the level of developed countries – as has happened to Ireland, Finland, Sweden and other developed countries of today, as well as to Czechia, Estonia, Lithuania and Slovenia recently – then the qualitative investment attraction and promotion factors become crucial. Well-educated employees and high-quality public institutions – the rule of law and efficient public administration – are of particular importance for promoting investment in the high added-value innovative industries that can afford high location costs in developed countries (which is Croatia's goal, too).

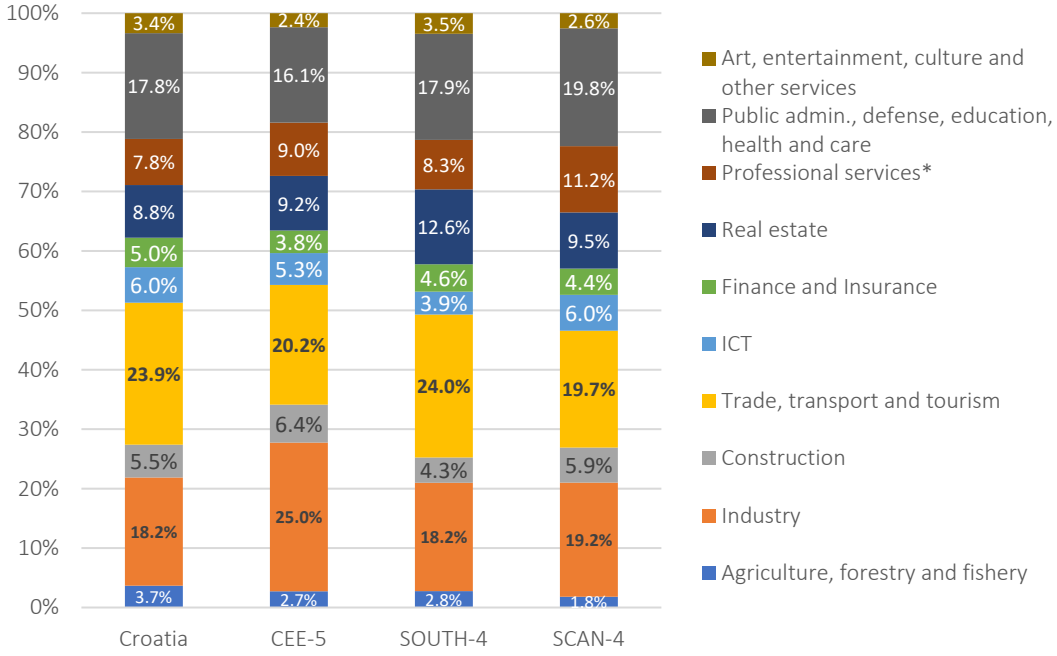
Only the most developed countries such as Ireland and Netherlands achieve excellence in all relevant elements of investment attraction. The most visible investment stories in Croatia, such as Infobip, Rimac automobile, Photomath and Nanobit (to mention the few that have received the most media coverage), indicate that excellence in only a couple of elements (which, in these stories, comes down to local entrepreneurship and innovation) can yield results. But the conviction that the "Kostelić syndrome" (autochthonous entrepreneurial individualism) can be a foundation for a modern economic structure is a pure idealism. There is a danger that individual economic success stories in the new industries fail to trigger deep-enough change in the economic structure or that it will be too slow. This is why it is necessary to improve public institutions and policies in order to strengthen the roots from which a sustainable and competitive economic structure that generates a higher added value will eventually emerge.

The structural change connected with increasing productivity and incomes does not mean a radical change of the sectoral structure of the economy. Figure P-1 shows rather small departures of Croatia's economic structure from three landmarks: the averages for CEE-5 (Czechia, Poland, Hungary, Slovenia and Slovakia), South-4 (Italy, Spain, Portugal and Greece) and SCAN-4 (Sweden, Finland and Denmark plus Netherlands, added to them for this purpose). Expectedly, due to its lower level of development, Croatia has a share of agriculture, forestry and fisheries higher by one percentage point. The share of tourism – structurally significant – is determined by geographic, climate and historical factors and increases the share of the country's TTT sector block (trade, transportation, tourism). But this share is not substantially higher than the South-4 average. The share of industry in Croatia is comparable with both South-4 and SCAN-4 groups. The share of industry is lagging behind the one in CEE-5, which is higher due to the foreign investment wave in the transition period of the 1990s and 2000s – the one that Croatia failed to join. However, when it comes to the share of its ICT sector (6 percent), Croatia can compare with the SCAN-4 group and is actually ahead of the CEE-5 and South-4 groups.

The relatively highly-developed ICT sector certainly is a competitive advantage, although its productivity is substantially lower than the one of the ICT sectors in developed European countries. This is why further development of the ICT sector should be based on strengthening joint efforts with the new high value-added industry that Croatia is lacking. Otherwise, the growth of the ICT sector will soon run into obstacles. The prospects of the ICT growth are also important in coupling with the public sector that needs to modernize its services through digitalization. This is the first change that will soon take place if institutions and policies take this action. The second important change is the expected growth of the sector of professional services connected with ICT and industry.

The sectoral shares shown in Figure P-1 are not policy goals. As the problem of low productivity lies in companies, the solutions for productivity growth should also be sought in them, not in the sectors.

Figure P-1 Structure of gross value added in current prices 2022



**Professional, scientific, technical and other auxiliary administrative services*
***Other personal services are also included*
Source: Eurostat

According to a World Bank survey,[1] the productivity in almost all Croatian sectors is lagging behind the German standard. The reasons for this low productivity should therefore be sought in companies and in the institutional framework that regulates business operations. While the tourism and real estate sectors have almost reached the German value-added per employee, professional services, finance sector and power supply are at 50–60 percent of German productivity. Still below 50 percent of German productivity are the following sectors (listed here from the highest to the lowest productivity rates): agriculture, transport and warehousing, construction, ICT, mining, industry and – at the end of the list – water supply and waste management with approximately one-tenth of German productivity.[2] The entire Croatian economy is characterized by this productivity gap. But this is also an opportunity for the country to fertilize investment in all of its sectors as part of its efforts to converge with the average socioeconomic level of European Union which is still way ahead of Croatia.

The findings on the importance of enterprises – not the sectoral structure – are in line with the ones in the latest OECD report for Croatia (September 2023) which points out that the *business environment reform holds the key to Croatian economy's productivity growth*.[3] The share of low-productivity companies in Croatia is high and the ones with high productivity have problems accomplishing growth. To a small extent, Croatia's productivity gap can be explained with the sectoral structure of the country's economy, because it is the companies –not the sectors – that hold the key to growth, concurs the OECD report.

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[1] The World Bank (2023): *Croatia Country Economic Memorandum: Laying the foundations: Boosting productivity to ensure future prosperity*, fig. 10, p. 6.
[2] The result corresponds with the estimates of surplus manpower in state-owned enterprises given in the chapter on the labor market and education challenges.
[3] OECD Economic Surveys Croatia, p. 61.

In its report, the OECD points at the universal problems faced by Croatia in adoption of new technologies (a relatively low digital intensity of Croatian companies and also a low level of research & development) and at poor managerial skills. The report recognizes two crucial limitations for growth in Croatia: (1) low level of integration in global value chains, and (2) low intensity of foreign direct investment compared to similar countries.

The conclusion is in line with the analysis of the corporate sector internationalization process described in this document. As its first analytical chapter shows, Croatian foreign controlled enterprises usually have less problems surmounting the limitations and they bring the desired change into the dynamics and structure of the Croatian economy. However, while present in almost all sectors, this segment of enterprises is still not big enough to contribute to a radical transformation of the economy in terms of a higher productivity. The OECD concludes: *improving the business environment in such way that it can offer support to large investments and business dynamics will be crucial for Croatia's convergence towards the average productivity in European Union*.

The OECD has observed that, in practice, Croatian regulations and policies often differ with those envisaged in decisions and rules. The OECD gives three reasons for this: (1) slow administration, (2) impossibility to anticipate the application of regulations (causing lack of trust of investors about protection of their rights), and (3) low level of digitalization of public services. This identification of the key "trinity" of administrative obstacles therefore suggests three goals of the reform of the public sector – in other words, of public administration and state-owned enterprises: *speed (of procedures), foreseeability (of regulations) and digitalization (of everything)*.

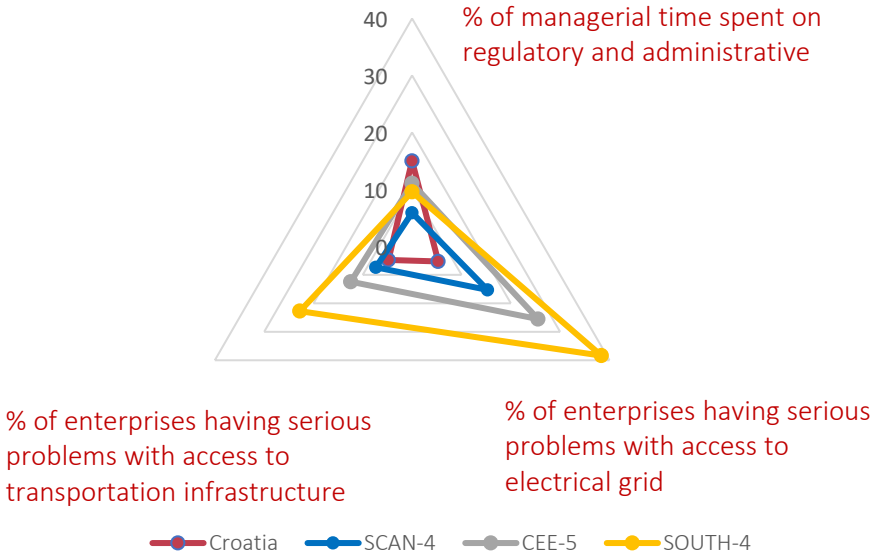
The findings and recommendations of the OECD are along the lines of the recommendations from the 2020 edition of *White Book*. Entitled *Competitiveness Has No Alternative: How to Do Fast and Predictable Business in Croatia*, the recommendations were as follows:

1. *Acceleration of administrative processes and decisions will reduce the costs of regulation and wasted time and free up time and money for research, development, business experiments and innovation.*
2. *Acceleration of tax administration, court decisions and their enforcement, with an emphasis on collection and insolvency proceedings, is a necessary condition for acceleration of business processes.*
3. *Acceleration of business and administrative processes should be accompanied by strengthening the rule of law and fighting corruption.*
4. *Personal accountability in the public sector needs to be strengthened by rewarding the speed of administrative processes and decision making.*
5. *The regulatory reform should include the "two for one" program – cancelation of two old regulations for every new one.*

Figure P-2 offers a deeper insight into the structural problems of the business climate in Croatia. The Croatia line indicates two important competitive advantages compared to the three EU member-state groups (the same ones as in Figure P-1): availability of transport infrastructure and power supply. These advantages are particularly important in the context of Croatia's EU membership that makes the country an attractive business "haven" oriented towards access to the EU single market. If other well-known competitive advantages – not measured here – are added to the picture, such as its global visibility, quality of life and its position of Europe's "southeastern gate", it is too bad they cannot be exploited due

to Croatia's poor ranking in administration and part of regulation, even compared to the inefficient South-4 group. Croatian managers spend most of their time coping with regulations and administrative procedures; bureaucracy stifles business activities and raises barriers to the development of potentials.

Figure P-2. Strengths and weaknesses of doing business in Croatia



Note: The data from the World Bank Enterprise Surveys refers to different years because the surveys are carried out at different times for different countries (for Croatia it was 2019), but the period is the same (2019–2022).
Source: The World Bank

The comparison indicates two priority areas where obstacles should be eliminated:

1. Improving the quality of regulation – its clarity and predictability – and reducing regulatory costs (in short: better regulation for innovation and growth).[4]
2. Accelerating and digitalizing the simplified administrative processes with an emphasis on direct support of policies and administration to investment.

Productivity growth through digitalization and innovation

Croatia's relatively developed ICT sector generates approx. 6 percent of the country's GDP. It has 8,706 entrepreneurs with some 51,000 employees (approx. 5 percent of total corporate employees). Of these, 3,472 entrepreneurs (approx. 40 percent) earn some sort of revenue from sales in international markets.[5] This relatively developed sector has substantial development potentials. As shown in the comparison with the productivity of German economy, the ICT sector could almost double its productivity and

[4] The terms *regulations* and *regulation*, both used in this book, have different meanings. Regulation is a wider term which also extends to the ways regulations are used and to the regulation performed with no regulations (such as common regulation and self-regulation).

[5] The size of this sector as indicated by the data from FINA's annual report for 2022 is smaller than it actually is because the report did not include the IT experts who are traders, self-employed, employed directly at foreign companies not doing business in Croatia, and foreign citizens performing this type of work as digital nomads in Croatia. According to the more comprehensive data of the Croatian Bureau of Statistics, there are approximately 57,000 employees in this sector.

create a strong developmental thrust at the same time. However, strong support in the economy and exports should be ensured for further growth of information & communication products and services.

The new demand in the domestic market will come from two sources: 1) private sector – through private companies' investment in digitalization; and 2) public sector – through investment in IT's digital infrastructure (the factor enabling development) and digitalization of public administration (the factor that directly stimulates the ICT sector development by creating a new demand for such services as they are required for digitalization of administrative processes). Very encouraging here is a number of projects of digitalization of administrative procedures and documentary transactions currently being implemented. Foreign Investors Council Croatia welcomes projects like digitalization of Tax Administration[6] and e-School project. The projects are financed from EU funds.

Figure P-3 indicates that, in Croatia, the digitalization gap in the public sector is bigger than in the private sector. The four subindices of the Digital Economy and Society Index (DESI – shown here for 2022) are divided into the private segment (digital skills / human capital, and digitalization of business sector / integration of digital technology) and public segment (digital infrastructure / connectivity and digital public services).[7] In terms of human capital / digital skills, Croatia has exceeded the EU average by approx. 6 percent. This can be explained with relatively high shares of citizens with developed digital skills and ICT graduates – yet another proof of the sector's potentials. In terms of integration of digital technology in the business sector, Croatia is a bit ahead of the EU average. This can be explained with the fact that online sale is relatively widespread among Croatian companies. But this is a relatively narrow measure of digital integration in the corporate sector because it does not measure digitalization of the production processes that have a more direct effect on productivity. This is why this data should be interpreted with caution. Nevertheless, it can be concluded that the digitalization in the private sector is Croatia's moderate competitive advantage, or potential, particularly if the general level of economic development is taken into account.

Croatia is lagging behind the EU average in both public segments: infrastructure (which is explained by a below-average availability of fast broadband Internet) and digital public services (which is mostly explained by impossibility of fully-digitalized performance of administrative procedures). The detailed illustration of the components of DESI indices at the end of the chapter shows that Croatia is lagging behind the EU average in the segment of digital forms and official delivery of documents, particularly for enterprises. The gap in this segment has been reduced by implementation of e-Health project and growing availability of digital services for citizens. Still, the gap with the EU average is by far the biggest in digital public services (53.6 against 67.3 percentage points, or approx. 20 percent).

The comparison of DESI subindices for 2018[8] shows that Croatia's relative position compared to the EU average has improved for some of the subindices that reflect the situation in the private sector and has deteriorated in the public sector. Although the subindex values from the 2018 and 2022 reports are not directly comparable due to methodological changes. Figure P-3 shows an unfavorable change in Croatia's

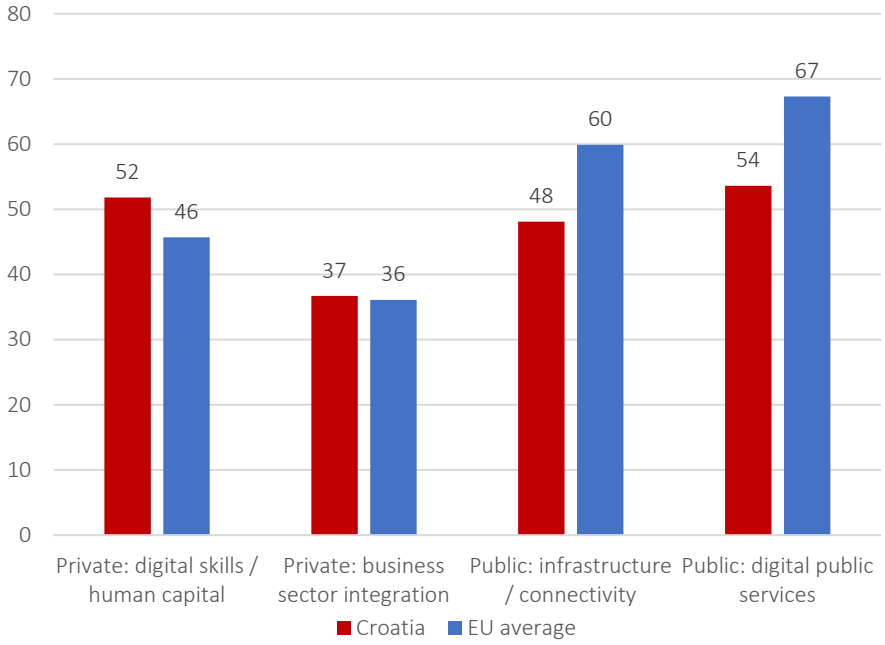
[6] There is still plenty of room for improvements in the relation between entrepreneurs and Tax Administration when it comes to simplifying tax forms and expediting the issuance of tax opinions binding for all organizational units of Tax Administration. See also AmCham (2023): Preporuke za reformu poreznog sustava u 2023. godini. The AmCham report contains a detailed description of tax recommendations supported by FICC.

[7] A more detailed description of the individual components of the subindices and explanations of their names can be found in the annex at the end of the chapter.

[8] Based on the measures for 2016, published in DESI 2018.

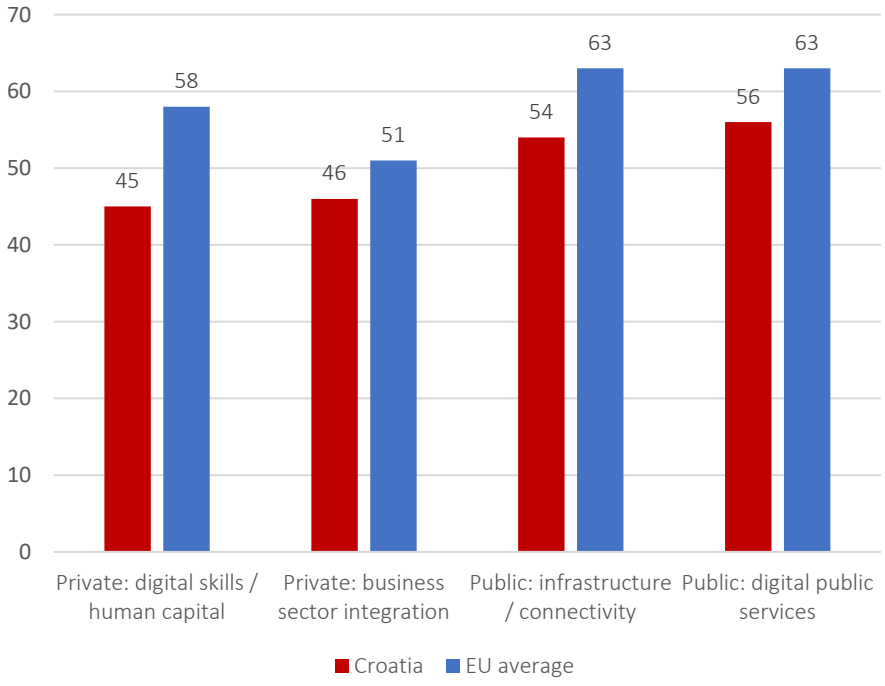
relative position compared to the EU average in the public segment. This gap with the EU average had existed before, albeit smaller.

Figure P-3a DESI subindicies 2022



Source: European Commission

Figure P-3b DESI subindicies 2022



Source: European Commission

It can be inferred from the data shown here that three blocks of measures should be carried out urgently:

1. *Stimulating company investment in digitalization.*
2. *Accelerating investment in availability of ultrafast broadband Internet.*
3. *Ensuring general digitalization as an instrument of simplification of administrative procedures for companies, particularly public subsidies for investment processes.*

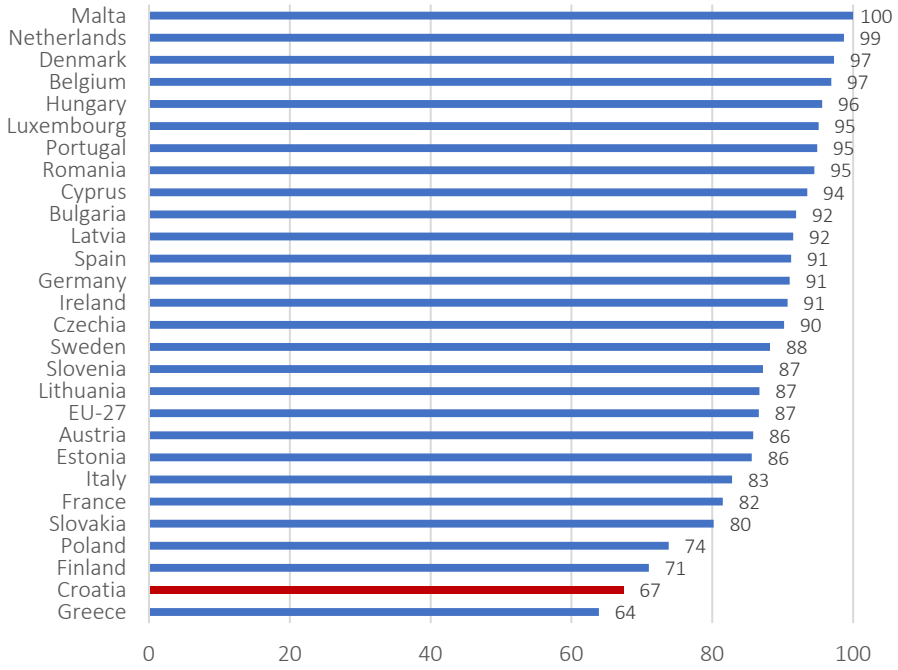
1. Stimulating company investment in digitalization. The book value of intangible assets of Croatian companies largely consists of patents, licenses, software and R&D investments. At the end of 2022, the total value of such assets was approx. EUR 7 billion, or only 5.9 percent of the overall fixed assets of the corporate sector. This value was mostly "locked" inside the ICT sector, which accounted for 19 percent of the total value of intangible assets. The share of this sector in the corporate sector's intangible assets was even higher – 22 percent. These shares are three to four times higher than the ICT sector's share in gross value added. It means that the non-ICT companies are underachievers when it comes to investment in intangible assets. This confirms the results of earlier analyses of Croatian investments, which pointed at an unfavorable structure with a large share of traditional investments in land and real property. The investments in machinery, equipment and intangible assets are lagging behind the EU average, particularly its more developed part, where investments in intangible assets reach even up to 20 percent of total investments.[9] The past policies and incentives have not yielded results, *which means that something needs to be changed. Private investment in digitalization (software) will be efficiently stimulated if tax incentives are increased by making accelerated depreciation tax deductible and, possibly, increasing it above the factor of 100 percent as an additional incentive in the first few years of implementation when substantial progress is desired. Currently, there is a 4-year software depreciation in place (25 percent per year), with the possibility of 2-year acceleration (50 percent per year). As there are many software solutions that cannot be purchased – one pays for their use instead – extended tax deductibility of the application use costs at a rate above 100 percent should be introduced, depending on the international accounting standards applied (if there is no depreciation of intangible assets). The described horizontal support measure is very strong because it is targeted with high precision, it is administratively simple to implement and monitor, and does not discriminate market participants*. The reader should keep in mind that the tax system-related suggestions have been conceived as a basis for a debate that can lead to the best possible measures only after an expert analysis and dialogue.

2. Widespread use and affordability of ultrafast broadband Internet. In terms of the coverage of broadband Internet faster than 100 Mbps, Croatia is placed at the bottom of the EU (Figure P-4). The barriers for the expansion of such networks include lack of public trust in new technologies, inadequate efforts of local and regional government units, and non-standardized practice in zoning.[10] For this reason, the activities and financial and other resources in the National Plan for the Development of Broadband Access have not been pinpointed (it will be done subsequently). The National Recovery and Resilience Plan (NRRP) envisages improvement of connectivity as the basis

[9] Šonje, V. (2019): Investicije u Hrvatskoj – trendovi, struktura i (ne)efikasnost. HUB Analiza 67.
EIB (2023): EIB Investment Survey 2023.
[10] Nacionalni plan razvoja širokopojasnog pristupa u Republici Hrvatskoj za razdoblje 2021.-2027., Croatian Government 2021.

of digital transition[11] by introducing regulatory improvements and direct financing of the prepared projects and projects in the areas for which there is no commercial interest in increasing the broadband access. These projects are around EUR 126 million worth. It is not clear, however, whether the implementation of this NRRP measure will help Croatia improve its second-last ranking shown in Figure P-4.[12] *The implementation of the National Plan for the Development of Broadband Access 2021–2027 should be expedited and the subsidies and incentives for private companies' investment in ultrafast broadband Internet should be increased. All this should be accompanied by strengthening the competition of telecom operators.*

Figure P-4. Household broadband Internet coverage, speed > 100 Mbps (in %)



Source: Eurostat

Before describing the connections between digitalization and improvement of administrative processes, the digitalization context described here should underline the close connection between adoption of innovations by companies, growth, and better regulation. *White Book's* 2020 edition shows positive correlation between the quality of business environment and propensity towards innovation: there is a connection between a better business climate and a higher level of adoption of innovations. The link between them is digitalization. It is also a solution to the problem of administrative efficiency and a subject of company investment – being an opportunity for investing in digitalization in both public and private sectors in order to increase the strength of the ICT sector and the companies' capacities for adoption of digital technologies and innovation regardless of their respective sectors. This is why digital technologies

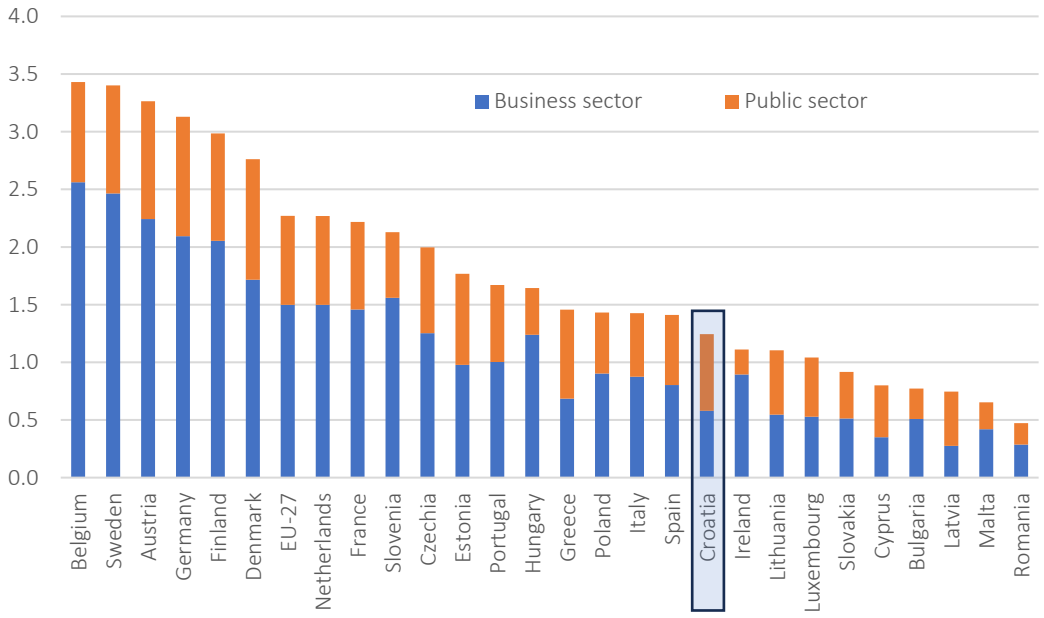
[11] Sub-area C2.3.R4 in NRRP.

[12] Ministarstvo prostornoga uređenja, graditeljstva i državne imovine.

and innovations should be adopted not just in the ICT sector but throughout the economy. The economy must become *open* to the most innovative and most productive companies.

In 2021, Croatia's research & development expenditure relative to GDP (GERD) stood at 1.24 percent, placing the country ahead of nine EU member states, between Spain and Ireland (Figure P-5). This was a step forward compared to 2015, when the ratio was merely 0.8 percent, ranking Croatia fifth last, ahead only of Romania, Bulgaria, Cyprus and Malta. According to the 2022 data – not yet processed for all member states – Croatia made further progress: the ratio was now 1.43 percent. However, Figure P-5 reveals Croatia's weak sectoral R&D investment structure due to a low business sector share in R&D investment. This is connected with the earlier mentioned high concentration of intangible assets in the ICT sector – in other words, with a relatively low concentration of such assets outside this sector. The main characteristic of the leading R&D countries such as Belgium, Sweden, Austria, Germany, Finland and Denmark are the high shares of innovative companies in their economies. These companies are the principal contributors to a high share of R&D investment in GDP, with the business sector dominating over the public sector. *Croatia should use the investment attraction program to increase the share of business investment in R&D from current 0.6 percent to a minimum of 1.0–1.5 percent of GDP per year – the ratio currently recorded by Netherlands, France, Slovenia, Czechia and Hungary*. Better regulation for innovation and growth is but one of the instruments for achieving this goal.

Figure P-5 R&D expenditure in % of GDP 2021



Source: Eurostat

3. **General digitalization as an instrument of simplification of the administrative procedures intended for companies, with an emphasis on public subsidies to investment processes**. Digitalization comprises several interconnected areas which cannot be observed through the prism of digitalization alone. It is only one of the instruments for increasing the administrative efficiency, used only after the goals, priorities, policies and measures have been set up correctly. Only then can productivity and efficiency of the public sector be increased through development and use of applications.

Otherwise, the digitalization of the public sector will be fragmented. Such an approach would also have positive effects and would indirectly stimulate further growth of the ICT sector, but the resulting increase in administrative efficiency, investment and productivity would not be as it could have been if the first step had been made on the basis of the two abovementioned priorities: (1) simplifying and reducing the costs of administrative procedures, or implementation of regulations (in short: better regulation),[13] and (2) subsidies to investment, with an emphasis on generating a higher added value and innovation. Further in the text, these priorities will be described with more precision and recommendations will be explained.

Better regulation for innovation and growth

The Directorate for Internationalization of the Ministry of Economy and Sustainable Development, together with its Sector for Competitiveness and its Business Environment Improving Unit have been entrusted with the implementation of the better regulation project. In the annual report on Ministry's activities for 2022 and on the Directorate website[14], the following measures are presented:

1. Completion of the Action Plan for Administrative Unburdening of Economy. By 2022, fifty unburdening measures had been carried out, with the overall financial effect of approx. EUR 71 million (0.1 percent of GDP)
2. With technical assistance of the OECD, the project of improvement of regulation through innovation and digitalization has been launched. As part of this project, new Action Plan for Administrative Unburdening of Economy will be prepared and a regulatory sandbox for innovative business experiments will be set up.
3. Coordination and training of public bodies for preparing regulations in line with the better regulation principles. The report mentions four trainings attended by 41 public administration experts for developing SME tests for assessing the regulatory impact on small and medium enterprises (including the application of Standard Cost Method (SCM – assessment of regulatory costs). Digitalization of the SME test is also planned as part of the project (2).

These priorities, goals, policies and measures, as well as the organization of the public administration in the better-regulation segment, are not sufficiently coordinated with the more ambitious developmental goal – higher investment and productivity that would accelerate the increase in real income per capita until it reaches 90 percent of the EU average. The described scope of activities neither reflects clear goals nor takes into account the required speed of decision-making and action. It is this speed that Foreign Investors Council reiterates in yet another edition of its *White Book*. Inadequacy of this speed can be seen in the fact that the old Action Plan for Administrative Unburdening was implemented in 2022 and the new one was adopted in late 2023, a year after its predecessor had been concluded. The lack of organizational continuity is a consequence of a lack of clear goals and selection of priorities which, on the implementation level, leads to inadequate capacities for regulation improvement activities. Still, we should point out here that the new Action Plan is more ambitious: it envisages 73 unburdening measures in a total amount of EUR 133 million (0.17 percent of GDP), of which 19 percent have already been implemented.

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[13] The terms *regulations* and *regulation*, both used in this book, have different meanings. Regulations is a narrower term. As for regulation, it includes not just regulations, but also their administrative application in practice. The term *business climate* – or *investment climate* – has an even wider meaning.

[14] Ministry of Economy and Sustainable Development, Unaprjeđenje poslovne klime (2 November 2023).

When it comes to the goals and priorities of the regulatory improvement activities, one should keep in mind that the quality of Croatia's regulations and efficiency of its administration are still far from the landmark values required for reaching 90 percent of the EU productivity average. This fact is reflected in Croatia's ranking in international comparisons of the quality of business environment and regulations. The average values of indicators for Slovenia, Czechia, Lithuania and Estonia, all of them having real income per capita around the targeted 90 percent of the EU average (89 percent for 2022), are far above the values of these indicators for Croatia. In the latest *Doing Business* report for 2020,[15] Lithuania ranked 11th in the world (scoring 81.6), Estonia ranked 18th (80.6), Slovenia 37th (76.5), Czechia 41st (76.3), and Croatia 51st (scoring 73.6). Although published earlier than the latest *Doing Business* and probably not reflecting the reality anymore, the OECD's indicator of the product market regulation (which includes measurements for 2018 and 2019) nevertheless showed similar gaps. Croatia should do better than these four countries if it wants to increase convergence of its productivity and living standards towards the EU average.

Guided by the principle that efficient implementation requires a clearly defined goal, priorities, policies, measures, and adequate organization and resources, the following five recommendations for better regulation can push Croatia closer to the more ambitious developmental goal:

1. ***Clear goal**: To achieve its goal of reaching 90 percent of the average EU productivity, Croatia should, by 2028, join the world's top 25 most attractive investment destinations measured by the OECD's system of indicators (PMR), the future World Bank's system B-READY and similar leading comparable indicators of business and investment climate and competitiveness. In line with this principle, innovation indicators should also be used to ensure Croatia's visibility in terms of the quality of its investment in innovative companies that generate higher value-added per employee.*
2. ***Priorities, policies and measures**: When selecting the priority unburdening and regulation improvement areas, the value gaps of the internationally comparable indicators should be kept in mind (and eliminated by using best practices). It is equally important to establish constant public consultations with the business sector in order to pinpoint the biggest obstacles and non-tax regulatory costs that would be eliminated by implementation of the future Action Plans for Unburdening of Economy.*
3. ***Standard Cost Method (SCM) as criterion of control of total regulatory costs**: Besides assessing the effects on small and medium enterprises (SME), measuring of the business regulation costs by using the SCM method should be expanded to a maximum in order to control the total regulatory costs. New regulations should be introduced only if some of the old ones are abolished. Prior to completing the comprehensive measurement of regulatory costs, it is recommended that the "2 for 1" principle is introduced: if one new regulation incurring new regulatory cost is introduced without a highly precise assessment of such cost, two old regulations that also incur regulatory costs without a highly precise assessment will be abolished.*
4. ***The organizational requirements** for efficient implementation of the regulation improvement program: in this context, the organizational unit such as the Sector for Competitiveness of the Directorate for Internationalization of the Ministry of Economy and Sustainable Development should remain the central point for operational coordination and implementation. However, setting up of the goals, priorities and measures and monitoring of the results should be done at the highest Government level, with interdepartmental government coordination between ministries and pub-*

[15] The World Bank, Doing Business 2020.

lic bodies and with participation of the private sector stakeholders. In accordance with this, introduction of two types of coordination for better regulation and investment is recommended in the remaining part of this chapter.

5. ***The new Croatian better-regulation program*** *should be incorporated in the future National Investment Promotion Action Plan.*

Active attraction and promotion of investment

Active attraction and promotion of investment includes two key activities: (1) awarding financial incentives and (2) operational support to investment processes. In Croatia, the Directorate for Internationalization of the Ministry of Economy and Sustainable Development is in charge of both activities.

Financial incentives

The Investment Promotion Act (Official Gazette 63/22), applicable since 2014, enables nine types of incentives for corporate income tax payers in Croatia. The incentives are envisaged for investments planned for a minimum of 5 years if they meet the broad criteria[16] in case of a relatively low investment of EUR 150,000 and on the condition that not less than 3 new jobs are created,[17] or in case of a large investment of EUR 3,000,000 and on the condition that not less than 15 new jobs are created and that inactive assets owned by the state are activated, or in case of an investment of EUR 500,000, with no special conditions if such amount is invested in modernization of business processes. The incentives are limited by the map of regional subsidies and with the overall amount of EUR 7 million per project per year. Due to these limits, no subsidies can be granted for investments exceeding EUR 100 million. Depending on the amount of initial investment, ordinary corporate income tax rate can be reduced by 50 percent over a five-year period (for microentrepreneurs investing a minimum of EUR 50,000) or over a period of up to 10 years (for investments between EUR 150,000 and 1,000,000). Profit tax rate can be reduced by 75 percent for investments of EUR 1 to 3 million and by 100 percent for investments exceeding EUR 3 million. Subsidies ranging from EUR 3,000 to 9,000 per newly created job are also awarded, depending on county unemployment rates (from 10 percent on). Subsidies amounting to between 50 and 70 percent of the eligible costs of in-service training of employees are also possible. Additional subsidies are also possible for creation of new jobs for development–innovation activities, business support activities, and high value-added services. There are also direct subsidies for capital expenditures in industry if not less than EUR 5 million is invested and if not less than 50 new jobs are created. For labor-intensive activities, additional subsidies are possible in the form of profit tax rate reduction, depending on the number of new jobs created (from not less than 100 to not less than 300). They are also possible for automation, robotization and digitalization in industry, based on the earlier described amounts and on the scale of reduction of corporate income tax rate from 50 to 100 percent, but on the condition of increasing productivity per employee for a minimum of 10 percent after 3 years.

The intention of financial incentives is to achieve as many goals as possible at the same time: increasing investment and creating new jobs (including large-scale low-productivity labor-intensive activities), and ensuring a more even regional development and technological progress (particularly in industry 4.0). A systematic public evaluation of the achievement of these goals has not been carried out. According to

[16] Financial incentives can be obtained for production and processing activities, development and innovation activities, business support activities, and other services with a high added value (Article 5).

[17] Or 10 jobs, if the investment in question is made in the ICT sector.

the annual activity report of the Ministry of Economy and Sustainable Development for 2022, since the Investment Promotion Act was passed, 764 entrepreneurs have become horizontal support beneficiaries, with a total planned investment amount of EUR 4.6 billion (or approx. EUR 6 million per entrepreneur, or project). It is not known if the overall amount of the planned investment has been used. The planned number of newly created jobs is 27,000, or 5.9 new jobs for every million of invested euros. It is also not known if the planned number of new jobs has really been achieved and what is the productivity of these jobs – in other words, what is the direct contribution of the financial incentives to the Croatian economy's convergence towards the European productivity levels. Foreign controlled enterprises account for approximately one-fourth of the beneficiaries of the subsides – roughly corresponding to their share in Croatian economy – which means that the incentives framework currently in place is not particularly directed towards attracting foreign investment.

Although a full expert evaluation of the effects of the Investment Promotion Act has yet to be made, the following can be concluded from the available information, data and the broad context of the economic policies:

1. *According to the Investment Promotion Act, financial incentives are primarily intended for stimulating low and medium sized domestic investment. The effect on attraction of foreign investment is positive, but is of secondary importance. What should be considered are the incentives that would better target attracting of key foreign investment in the companies with high value-added per employee, with further internationalization of companies through greenfield and brownfield FDI, stimulation of investment, and fitting in the international value chains being the priority criteria for awarding the incentives. It is important that the criteria be ambitious because crucial here is the investment that substantially increases exports and productivity. By raising the crossbar, the administration would focus on helping the key investment capable of having substantial effects on the economy's productivity.*
2. *Substantial increase in value-added per employee through new investment means high wages for the hired experts whose knowledge is considered valuable in the international market. As Croatian income tax and social contribution system is highly progressive, high wages mean high costs*. According to standard calculation, a net monthly wage of EUR 5,000 for a childless person means a total labor cost of EUR 9,742 for the employer, of which two pension insurance contributions (pillar I and pillar II) account for EUR 1,641 and the health insurance contribution accounts for EUR 1,380. All the social insurance contributions account for 31 percent of the so-called gross-II wage. *Instead of incentives in the form of the above-described limited lump sums for employment in the regions with high unemployment rates, a longer-lasting targeted incentive for high wages of experts in scarce occupations (regardless of regional unemployment rates) in the form of reduced social insurance contribution rates during a certain period after creation of a new job (2–3 years) should be considered here. The employee reward system based on the model of allocation of stocks and shares described in the labor market chapter should also be improved.*
3. Long-term reduction of corporate income tax rate is an important incentive, but very expensive for the state budget, leading to a permanent loss of public revenues. This incentive is feasible and fiscally affordable for small and medium investment if a complex system of limitation of the overall amount of subsidies is applied. This type of support has been introduced because the general corporate income tax rate for large companies in Croatia (18 percent) is only moderately competitive when compared with the EU and especially CEE. *The competitiveness of the general*

rate would substantially increase if it were reduced to 15 percent when the fiscal conditions are met. Also, extending the tax deductibility of investment expenditure by accelerating the depreciation of fixed assets (which substantially increases productivity) would have effects on the calculation of net current value and internal project rate of return. This would stimulate investment and, from the state's point of view, profits would still be charged, but over a longer period of time. In accordance with the earlier proposed model of accelerated depreciation of investment in software, *the acceleration of the depreciation of targeted assets and extended tax deductibility of eligible special-purpose costs that substantially increase productivity enables more accurate targeting of expenditures for companies' growth and development in the sectors with high added value*. Such a model would enable focusing on attraction of small number of large-scale projects. Also, such incentives are easier to monitor, evaluate and adjust in order to maximize their effects on the industrial policy goals.

4. The qualitative elements of the investment programs proposed for subsidies can also be evaluated. Some of the candidates for the qualitative elements for awarding subsidies are: (1) hiring Croatian emigrants; (2) multiplicative effects on additional investment (e.g. using products and services of Croatian startups, investing in startups, creating innovative ecosystems); and (3) general contribution of the investment to the expansion of local supply chains through purchasing goods and services in Croatia. Also, the qualitative elements which are to be evaluated must not be numerous and should be translatable into clear indicators in order to ensure that they are easy to understand and carry out by investors.

The incentive measures suggested here are merely a framework for a debate. For any future debate on their application, they should be worked out in order to eliminate the possibility of abuse and to ensure the best possible achievement of their targeted effects.

In addition to the financial incentives based on the Investment Promotion Act, Croatia also has regional and local subsidies. They are awarded by counties, cities and municipalities. There is no clear and simple overview of such subsidies. The Directorate for Internationalization provides operational support to investors as regards learning about local incentives and establishing contacts with local authorities at the lower level of territorial organization. However, in a fragmented system of 576 local and regional government units, where every unit adopts their own zoning plans and policies, and with numerous competent bodies and state-owned and utility companies directly participating in the implementation of investment projects through permit issuance and other similar procedures, coordinating operational support to investment is a very demanding task. Further in the text, the functioning of this system is described and recommendations for its improvement are given.

Operational support to investment processes

The Directorate for Internationalization of the Ministry of Economy and Sustainable Development is in charge of promotion of investment and development of the entrepreneurial infrastructure that includes entrepreneurial centers, incubators, accelerators, free zones, and entrepreneurial zones. There are more than 500 of them in Croatia, under the umbrella name of "subjects of entrepreneurial infrastructure". These are mostly useful institutions providing information to investors and offering them assistance with local contacts, access to land, infrastructure connections and business premises. But the system is very fragmented at the local level and the Directorate for Internationalization encounters difficulties in its coordination activities. *Each county and large city should establish a single contact-point – an office or a regional*

development agency – that would be in charge of regional coordination for operational support to investment processes. In some self-government units such single contact-points already exist but are not part of the greater national coordination. With a clear mandate, a central competent body – currently the Directorate for Internationalization – could coordinate on the operational level up to 25 regional contact-points and each of them would coordinate public bodies and offices of local government, utility companies, entrepreneurial infrastructure subjects and other stakeholders of investment process at the local level. Regional Coordination for Investment would thus be created; it would be used for exchanging information and best practices and developing healthy institutional competition in attracting investment and stimulating economic growth. Since better regulation is crucial for attracting investment, the regional contact-points should be included in regulation improvement projects and the coordination should be renamed Regional Coordination for Better Regulation and Investment. Counties should make their own efforts to brand themselves as investment destinations and should encourage the same efforts of their cities and municipalities.

The first joint project of the Regional Coordination for Investment should be creation of a single digital database of central, regional and local investment subsidies and entrepreneurial infrastructure subjects with an intelligent browser that, with the help of a simple Internet questionnaire with approximately 5 questions (amount and type of investment, sector, preferred location), will be able to narrow down the set of information for interested investors by using the "funnel" method, thus making this set of information relevant, and find contact information of the competent persons. In the text below, it is described how such database would be integrated in a substantially improved version of the Internet service Invest Croatia*.*

The Regional Coordination for Investment could coordinate some other important projects that could improve the competitiveness of the regions and Croatia in general in order to attract and stimulate investment: (1) creating a methodologically standardized database of local tax and non-tax levies; (2) creation of a methodologically standardized database of local labor markets (in cooperation with relevant Ministry and Croatian Employment Service); (3) submitting to Croatian Bureau of Statistics an initiative for publishing up-to-date data on investment and their structure on the lower levels of the territorial organization; (4) upgrading the statistics published by cities and municipalities and consolidating them methodologically into a map (index) of competitiveness on the local level, etc.

Local zoning plans are a good example of why the Regional Coordination for Investment is needed. They constitute an important framework for every relevant investment that occupies space and infrastructure. These plans are changed by the political will of local government units, which is their inalienable democratic right. However, unpredictability of the regulatory framework is sometimes connected with unexpected changes in local zoning plans. Such unexpected changes can postpone or prevent the realization of planned investment. *The planned digitalization of adoption of zoning plans*[18] *would be the first step in right direction if all the updated plans and their announced amendments are posted on the notice-boards and Internet websites of the local and regional government units. Given the importance of physical plans, it is important that the information from* e-Planovi *(e-Plans) be connected with the single digital base of investment subsidies and subjects of entrepreneurial infrastructure.*

Connected with zoning plans is a good example of simplification of regulations, which can be seen as a guideline for protecting the investors from unpredicted regulatory changes. The changes in construction-related regulations have enabled obtaining of a location permit before all property-related issues have

[18] The e-Planovi project is carried out by the Ministry of Physical Planning, Construction and State Assets as part of the National Recovery and Resilience Plan. The project has a budget of EUR 11,000,000.

been resolved. Obtaining a location permit means that a construction permit will be issued in accordance with the physical plan that was in place at the moment when the location permit was obtained and with which the investor was familiar. It is an example of the regulatory continuity, common in other economic areas. Some countries use this regulatory continuity principle for stimulating investors' participation at the stock exchange in such way that a special investment account can be opened, with guarantees that the long-term tax treatment will remain the same even if the investor's tax treatment has changed in the meantime. *A project for change of the regulatory continuity principle through investigation of the most common critical cases of discontinuity of regulations known to emerge and obstruct investment should therefore be launched. Such investigation would provide a basis for prevention of such cases by using amendments, like in the zoning plan example*. In its first phase, the pilot project should focus on support to investment projects; later, depending on the results and assessments, it could also be applied more comprehensively, to business regulations in general.

In the fragmented public system that surrounds relevant investment processes, a special place is reserved for local public bodies and state-, city- or municipality-owned utility companies. The investment processes that occupy space and infrastructure necessarily include state-owned energy company HEP, water supply and sewerage utilities, a road construction company or local directorate, and local administration in general. More complex projects include activities such as development of environmental impact assessments, water-supply connection feasibility studies, compliances with various standards and the like. In such a fragmented system, coordinating the operational support to complex investment is very difficult. The Directorate for Internationalization is not even authorized to require anything from most of these institutions or to hurry them up. However, when it comes to the investment projects – mostly public ones – regulated by the Act on Strategic Investment Projects of the Republic of Croatia (Official Gazette 29/18, 114/18), they are supported by the interdepartmental government working group that facilitates coordination. There is no such coordination for relevant private investments that do not meet the criteria stipulated in the Act on Strategic Investment Projects of the Republic of Croatia. The coordination is merely informal and of advisory nature. *By introducing the concept of relevant (key) investment with substantial effects on the overall productivity of the economy, regardless whether the public financial incentives from the Investment Promotion Act are used or not, such coordination could be established and could concentrate on a small number of large-scale projects of wider social importance, even if they do not meet the currently applicable criteria from the Act on Strategic Investment Projects of the Republic of Croatia. In addition to the vertical "top-down" coordination through the earlier mentioned Regional Coordination for Better Regulation and Investment, acceleration of the realization of key investment also requires vertical "bottom-up" coordination on the national level. The purpose of the national coordination for relevant (private) investment would be to provide adequate information to public bodies and state-owned companies and ensure their involvement and support. However, an implementing body such as the Directorate for Internationalization would continue to carry out and coordinate the support on the operational level. The national coordination for relevant (private) investment should function in close cooperation with the Government cabinet. Given its close connections with better-regulation projects and the equally close connections between the issues of better regulation and investment support, such coordination should have a name that would reflect its mandate: the National Coordination for Better Regulation and Key Investment.*

The future National Investment Promotion plan should be able to recognize the importance of the National Coordination for Better Regulation and Key Investment and describe its functioning on the strategic level (the coordination would not be operational – in other words, it would be a strategic body, not

an implementing one). The activities of the National Coordination for Better Regulation and Key Investment should include strategic coordination, identification and monitoring of goals, and strengthening the operational coordination on lower levels of the fragmented public sector.

Successful introduction of focus and coordination in the existing fragmented system through the National Coordination would require:

1. *Defining clearly the goal of attracting investment and the key performance indicators (KPI) that the National Coordination will monitor on a semiannual basis – more often, if necessary – and that will help it monitor the efficiency of the system in achieving the strategic goals;*
2. *Involving the interested private sector representatives (HUP, FICC…) and independent experts in the Coordination's activities in order to asses them and to ensure better communication of suggestions for improvements of the system; the Coordination will also be a place where policy improvements will be advocated by the Directorate for Internationalization which, given its accumulated experience, will function as a technical secretariat for organizing meetings and drafting reports for the National Coordination for Better Regulation and Key Investment;*
3. *Ensuring public transparency by creating a National Coordination website where the goals, KPIs, measures, projects, analyses, and assessments of effects are clearly presented, in order to prevent turning the National Coordination into a lobbying forum and to convince the interested public in the usefulness of the implementation of the key investment projects.*

Development of the activities of the Directorate for Internationalization

Ensuring clarity of the goals, making the accomplishing of these goals visible to various stakeholders, and building social consensus on the necessity of additional developmental progress through private investment in the companies that generate high value-added per employee – all this requires reorganization and strengthening of capacities of the key implementing body. In the current structure, it is the Directorate for Internationalization of the Ministry of Economy and Sustainable Development. The success of the coordination of the investment attraction and promotion activities will depend on the operational activities of the administration and its development in the following activities:

1. Helping investors to understand Croatian labor market and find employees. The administration cannot replace the private sector and turn itself into an analytical information service or skill-development training center, but it can connect the interested stakeholders from the public sector (Croatian Employment Service, Ministry of Labor and Ministry of Education) and private sector (private employment agencies, private educational institutions) and increase the flow of information and quality of investors' decisions by connecting them with active labor market participants. By putting the interested parties together, the limitations of the administrative capacities can be surmounted.
2. Helping investors to find local partners for creation of local supply chains requires creating, updating, and a continued analysis of databases for individual products, services and regions, together with exchanging information through the Regional Coordination and the stakeholders' network mentioned in point (5) below.
3. Centralization and easy-to-study presentation of all relevant information on *Invest Croatia* website, together with implementation of an intelligent browser based on a simple questionnaire, like in the earlier described example of searching for the possibilities of obtaining subsidies. The advanced intelligent web solutions should enable adapting the contents to the location of the IP

address from which a query is coming (as part of the international promotion – see point 6 below). As soon as the modernization of the website begins, integration of AI applications should be planned. These applications will enable optimization of the contents by enabling the system's active algorithmic dialogue with the visitor. As such, this integrated AI access to *Invest Croatia* web service would contribute to attractiveness of investment and would serve as a basis for the use of digital marketing for the promotion of Croatia as an attractive investment destination (see point 6 below). The AI implementation should be planned in the earliest stage of the announced implementation of the CRM system of the Directorate for Internalization,[19] and *Invest Croatia* should serve as access to a complex software tool that consolidates local databases.

4. Coordination through back-end digitalization. As a central contact-point and a brand associated with successful investments and progress, *Invest Croatia* should be focused on the front-end part of the communication with interested investors and other stakeholders. Crucial for this are the communication AI tools based on a complex system of interconnected databases. This implies a very demanding task of connecting and standardizing the data held by various institutions and applying a methodology for turning them into useful information products – comparisons, scores etc. Authorizations, use of information, and participation in the development of the integrated support information system *Invest Croatia* by contributing data to it not just within the Directorate and the Ministry but also by inclusion of all key stakeholders in the investment attraction and promotion system should be planned since the beginning of the system's development.
5. Establishing contacts with partners in global investment promotion. The communication aspect of investment promotion should rely on a network of domestic and foreign partner institutions and individuals with extensive international contacts. The network should include foreign investors and managers of large corporations with Croatian experience, business associations, consulting companies specializing in taxes and M&A, large law firms specializing in legal counseling on investment processes, international agencies offering labor and capital market brokerage services – in short, all those with potential business interest in international dissemination of information about the development of Croatia's economy and attraction of investment. The network should be set up and actively managed through dissemination of information and regular organization of business events.
6. Active promotion of Croatia as an attractive investment destination. This requires allocation of substantial budget and hiring communication experts who will develop and implement a communication strategy. That strategy, by using the state-of-the-art web service *Invest Croatia* (see point 4), ensuring participation of a partner network of individuals and institutions (see point 5), mobilizing the marketing potentials of the persons of global acclaim who favor Croatia, and the targeted use of digital marketing channels and global business media and events, will promote Croatia as a globally recognized investment destination. The communication segment is a precursor of establishing targeted direct contacts with large companies participating in the European investment cycle (making sure that they operate in the desired segments characterized by high productivity and incomes). Also, summer vacations and the quality of life in Croatia's Adriatic region could be used here as a communication bait. Together with sports, Croatia is known worldwide for its tourism. The Directorate for Internationalization should connect the international sector of Croatian Chamber of Commerce and the diplomatic–consular network in orchestrated

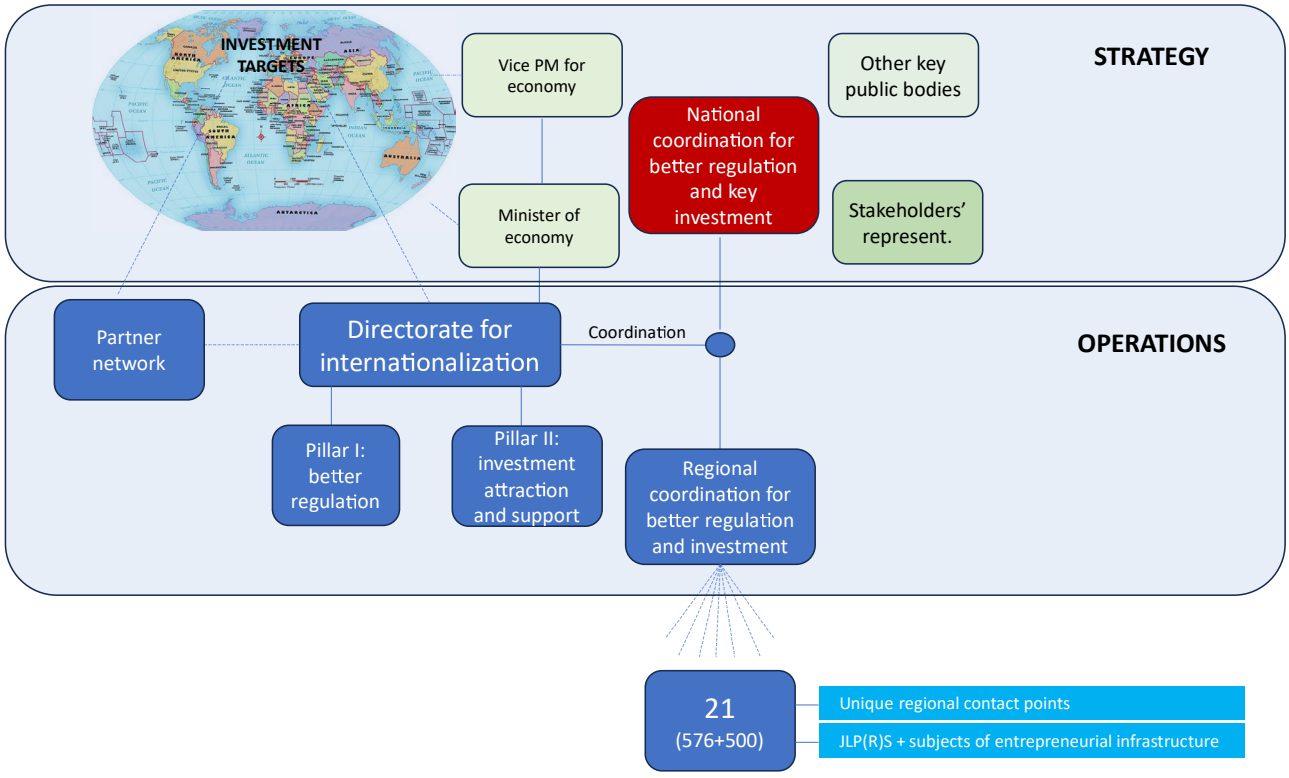
[19] Annual report of the Ministry of Economy and Sustainable Development for 2022.

efforts to approach the target countries and investors. Defining priorities is important here. Some countries stand out as permanent priorities due to a combination of export and investment potentials. For example, the U.S. as the world's leading economy, India as the "new China" for the following 25 years, and Germany as Europe's leading economy and Croatia's trading partner no. 1 can be identified as key target countries. Some other countries will also emerge as priorities on certain occasions. There is an impression that the purchase of Rafale fighter planes has not been used as a leverage for Croatian companies' investment and trade cooperation with French companies. Turkey, on the other hand, with its size and accumulated experience in investment processes, is an interesting non-EU partner that, like India, could recognize Croatia as a "partner gate" for its strategy of accessing the European Union's single market. It is therefore recommended that the Directorate for Internationalization, in consultation with Croatian Chamber of Commerce and Ministry of Foreign Affairs, prepares and carries out annual promotion and communication plans intended for target partner-countries and investors.

This investment attraction and promotion model implies a very demanding task that includes appropriate financial and expert resources and a clear mandate and organization of public administration: *(1) an adequate budget, (2) expert capacities and a system of rewards for the persons involved in attraction and promotion of investment, and (3) clear mandate, accountability and organization of the institutions involved in the process*.

NEW MODEL FOR INVESTMENT ATTRACTION AND PROMOTION IN CROATIA

CROATIA AMONG TOP 25 INVESTMENT DESTINATIONS IN THE WORLD KNOWN FOR HIGH VALUE ADDED FDI



DESI

DESI 2023 INDICATORS	Croatia	EU	Difference Croatia-EU*
Digital Skills - Human Capital (2022)	***51.8***	***45.7***	***6.1***
Internet use (% of all individuals 15-74)	81%	89%	*-8%*
At least basic digital skills (% of individuals)	63%	54%	*9%*
Females having at least basic digital skills (% of individuals)	60%	52%	*8%*
Above basic digital skills (% of individuals)	31%	26%	*5%*
At least basic digital content creation skills (% of individuals)	81%	66%	*15%*
Enterprises providing ICT training (% of enterprises)	21%	22%	*-1%*
ICT specialists (% of individuals in employment aged 15-74)	3.7%	4.6%	*-0.9%*
Female ICT specialists (% of ICT specialists)	15%	19%	*-4.0%*
ICT graduates (% graduates)	4.8%	4.2%	*0.6%*
Digital Infrastructure - Connectivity (2022)	***48.1***	***59.9***	***-11.8***
At least 100 Mbps fixed broadband take up (% of households)	28%	55%	*-27%*
Fixed Very High Capacity Network (VHCN) coverage (% of households)	62%	73%	*-11%*
Fibre to the premises (FTTP) coverage (% of households)	54%	57%	*-3%*
Mobile broadband take-up (% of individuals)	81%	87%	*-6%*
5G coverage (% of individuals)	83%	82%	*1%*
5G spectrum, 5G pioneer bands (% of harmonized spectrum assigned)	100%	68%	*32%*
Digital Transformation of Businesses - Integration of Digital Technology (2022)	***36.7***	***36.1***	***0.6***
SMEs with at least basic levels of digital intensity	58%	69%	*-11%*
Electronic information sharing (% of non-financial enterprises with at least 10 employees)	24%	38%	*-14%*
Social media (% of non-financial enterprises with at least 10 employees)	24%	29%	*-5%*
Big data (% of non-financial enterprises with at least 10 employees)	14%	14%	***0%***
Cloud (% of non-financial enterprises with at least 10 employees)	35%	34%	*1%*
AI (% of non-financial enterprises with at least 10 employees)	9%	8%	*1%*
E-invoices (% of non-financial enterprises with at least 10 employees)	43%	32%	*11%*
SMEs selling online (% of non-financial enterprises with at least 10 employees)	29%	19%	*10%*
e-Commerce turnover(% of total turnover)	13%	11%	*2%*
SMEs selling online cross-borders (% of non-financial enterprises with at least 10 employees)	13%	9%	*4%*
Digital Public Services (2022)	***53.6***	***67.3***	***-13.7***
e-Government users (% of all individuals aged 15-74)	69%	74%	*-5%*
Score of digital public services for citizens, All Life Events	71	77	*-6*
Score of digital public services for businesses, All Life Events	67	84	*-17*
Score for pre-filled Forms, All Life Events	38	68	*-30*
Score of transparency of service delivery, design and personal data, All Life Events	52	65	*-13*
Score of user support, All Life Events	86	84	*2*
Score of mobile frendliness, All Life Events	90	93	*-3*
Score of access to e-health records, All Life Events	86	72	*14*

Methodological note: SME – small and medium enterprises with 10 to 249 employees. The indicator values are the latest data from the European Commission's Dashboard for Digital Decade (DESI) 2023. The subindex values are the values from the DESI 2022 report (designated with year 2022 in brackets next to the subindex names). As the names of some of the subindex areas in Dashboard 2023 have been changed, both old and new names are used in the table to make it easier for the readers to find their way through the sources.

Source: Croatia DESI Country Profile 2022, DESI 2023 Dashboard for the Digital Decade