

Krysovaty, Andriy I.; Zvarych, Iryna Ya.; Zvarych, Roman Ye.; Zhyvko, Maksym An.

## Article

# Preconditions for the Tax Environment of a Alterglobal Development

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ANDRIY I. KRYSOVATYY\*, IRYNA YA. ZVARYCH\*\*  
ROMAN YE. ZVARYCH\*\*\*, MAKSYM AN. ZHYVKO\*\*\*\*

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## Preconditions for the Tax Environment of a Alterglobal Development

*Around the world, people are becoming increasingly aware of the ecological issues and the growing threats to the environment. The European Union has set a target for environmental taxation to account for 10% of compulsory levies by 2020. As it stood at 4.47% of French compulsory levies in 2014, there will need to be a significant increase in this taxation. While environmental taxation must rise to speed up the energy transition and change behaviours, offsetting this increase by a drop in other taxes would have the benefit of boosting economic activity at the same time. This is what we refer to as the “green tax shift”.*

**Delphine Siquier-Delot,**

Senior Analyst at Institut Friedland, working  
on French, European and international corporate  
related tax issues.

### Abstract

*In this article, we analyzed economic surroundings as a precondition for the development of the tax environment in the context of alterglobal development. We admitted that economic globalization is harmful to the environment because it depends on its own viability: the constant increase in commodity consumption, the increased use of resources and the growing disposition to pollute waste in the*

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\* Doctor of Economic Sciences, Professor of Ternopil National Economic University, Ternopil, Ukraine, ORCID ID: 0000-0002-5850-8224, e-mail: rektor@tneu.edu.ua

\*\* PhD, Associate professor of International Economics Department, Ternopil National Economic University, Ternopil, Ukraine, ORCID ID: 0000-0001-5155-540X, e-mail: irazvarych@gmail.com, i.zvarych@tneu.edu.ua

\*\*\* PhD, Associate professor of International Economics Department, Ternopil National Economic University, Ternopil, Ukraine, ORCID ID: 0000-0003-3741-2642, e-mail: romazvarych@yahoo.com

\*\*\*\* Department of International Economics, Ternopil National Economic University, Ternopil, Ukraine, ORCID ID: 0000-0002-7663-5737, e-mail: m.zhyvko@gmail.com

*ocean, on the ground, and in the air. So, we proposed considering and analyzing alterglobalization as a process oriented towards self-determination for peoples, communities and nations. In this context, we developed the idea about Environmental Fiscal Reform, including increasing green taxation and the phase-out of environmentally harmful subsidies as well as financial incentives, VAT reductions and tax breaks for green initiatives – providing the perfect conditions for the transition to a circular economy. As the new economy is developing at a rapid pace today – 10% per year, more than three times the global economic growth rate – it has a significant impact on competitiveness.*

**Keywords:** *alterglobalization; circular economy; environmental performance index; green taxes; circular tax policy; new economy*

**JEL:** *F18; F64; F68; Q5; Q56.*

## **1. Introduction**

Environmental sustainability, the survival of the planet, and the support of its biodiversity have an impact on the health of the ecosystem and the development of the global economy. The measure of the viability of the economic system is the ability to satisfy the needs of people without violating the consumer rights of future generations, and without reducing the natural diversity. Thus, any stable society must be sure that: (a) the rate of utilization of resources does not exceed the rate of regeneration; (b) the rate of consumption of resources does not exceed the commissioning of renewable substitutes; (c) the emission of pollutants and the accumulation of waste does not exceed the rate of their harmless absorption. The realization of only one of the conditions threatens the welfare of future generations and the planetary life in general.

Alterglobalization is oriented towards self-determination for peoples, communities and nations by (a) local and national ownership and control over resources and productive assets; (b) local and national normative authorities in a system where central levels of government maintain a local level in terms of achieving self-determination goals; (c) maximizing local and national self-sufficiency by meeting needs using local and national resources. The domination of local ownership and political power reduces external dependence on reducing the competitive struggle for jobs, markets and material resources.

The ideas put forward are a radical transition from the modern system of taxation. Traditionally, tax legislation is not something that governments love to play fast and get rid of; such a change cannot happen before changes in mentality take

place. And yet, if we are really looking for a circular economy that thoroughly assesses the limited resources of the Earth, then this change of mentality is exactly what we need.

The development of modern society is the transition from raw materials and the industrial economy to a new economy based on intellectual resources, knowledge and information technologies, the production of goods and services using the latest or high technologies, or the production of goods and services with information technology. It represents a qualitatively new technological level of the whole national economy, including active productive forces with a certain development potential.

## **2. The environmental component of alterglobalization**

Economic globalization is harmful to the environment because it depends on its own viability: the constant increase in commodity consumption, the increased use of resources and the growing disposition to pollute waste in the ocean, on the ground and in the air. The main feature of globalization is export-oriented production, which is destructive as it enhances global transport activity and uses fossil fuels, refrigeration equipment, and new ecologically destructive elements of infrastructure (the construction of dams, ports, roads, airports, canals, and pipelines). In the agricultural sector, the transition to industrial and export systems damages soils and waters, poisons them with pesticides and contaminates genetically modified plants.

The Environmental Performance Index (EPI) is a method of quantifying and numerically marking the environmental performance of a state's policies. The 2018 EPI shows a positive correlation with country wealth, as measured by per capita GDP. Figure 1 illustrates the factor analysis plots of EPI components on a global scale. At the top of the rankings, Switzerland leads the world in the 2018 EPI with a score of 87.42 in overall environmental performance. Switzerland's top ranking reflects strong performance across most issues, especially Climate & Energy and Air Pollution. Within Environmental Health, Switzerland also stands out in Water & Sanitation. Within Environmental Health, Denmark, Malta, and Sweden stand out with high scores in Air Quality. Additionally, Malta has the top rank in Water & Sanitation, and Sweden scores highest in lead exposure. In Ecosystem Vitality, France, Denmark, and Malta earn top scores in the category of Biodiversity & Habitat. At the bottom of the 2018 EPI rankings are Nepal (31.44), India (30.57), the Democratic Republic of the Congo (30.41), Bangladesh (29.56), and Burundi (27.43). Low scores on the EPI are indicative of the need for national sustainability efforts on a number of fronts, especially cleaning up air quality, protecting biodiversity, and reducing GHG emissions.

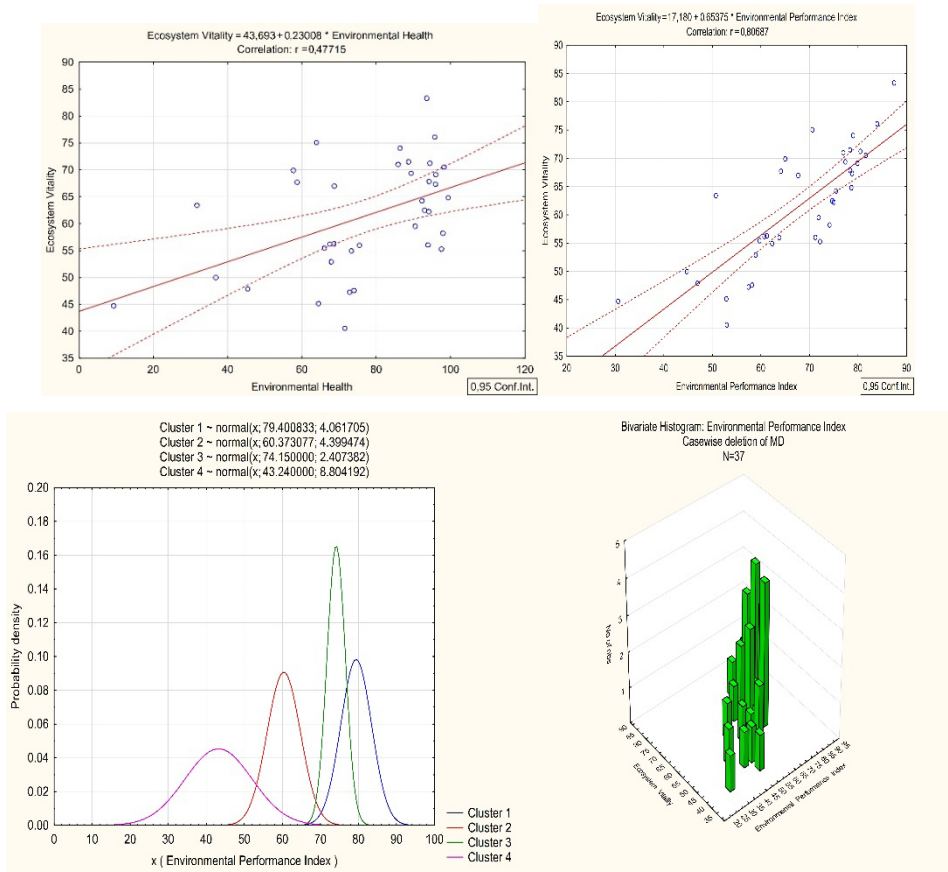
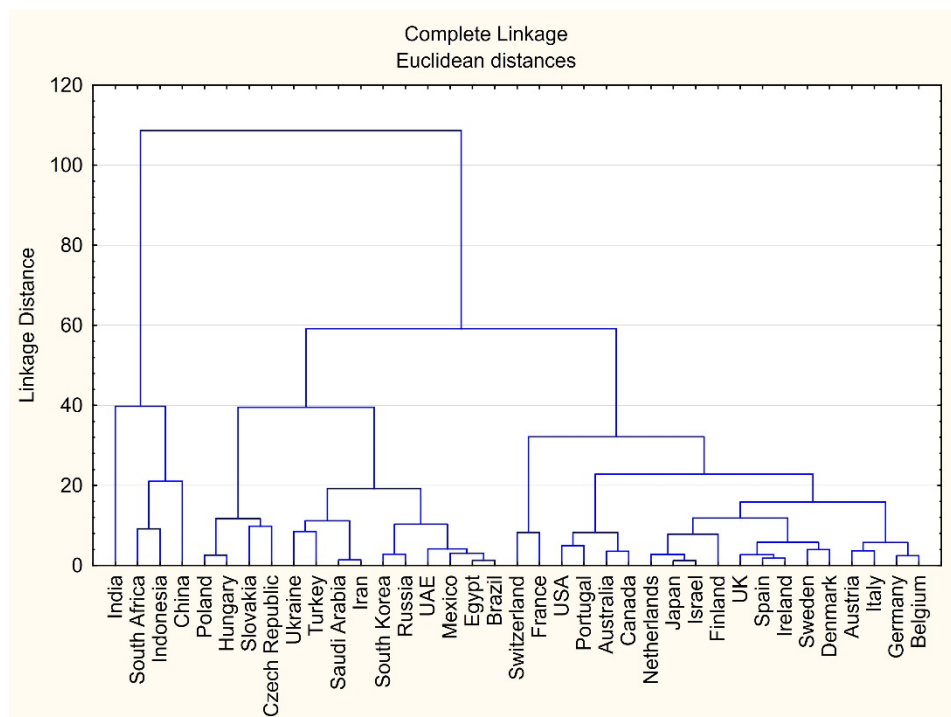


Figure 1. Factor analysis plots of EPI components, global scale, 2018

Source: authors' own compilation based on EPI Results (<https://epi.envirocenter.yale.edu/>).

European countries lead the EPI's top performers, occupying 17 of the top 20 positions. While the United States (27<sup>th</sup>) scores among the top 30 positions worldwide, it ranks towards the bottom of its regional standing. Many European and North American nations are members of the OECD. The spread in rankings among Asian countries is larger than any other region. Japan (20<sup>th</sup>), Taiwan, (23<sup>rd</sup>), and Singapore (49<sup>th</sup>) emerge as regional leaders, while Nepal (176<sup>th</sup>), India (177<sup>th</sup>), and Bangladesh (179<sup>th</sup>) are among the lowest performing countries in both their region and the world. The spread in scores may be explained by the varying levels of economic development within Asia. Environmental performance is of critical interest, as Latin America is home to over 40% of the earth's biodiversity and more than 25% of its forests. Many Middle Eastern and North African countries contain vast hydrocarbon reserves, which often adversely impact performance on key indicators for Air Quality and Climate and Energy. Oil refineries, hydrocarbon-generated

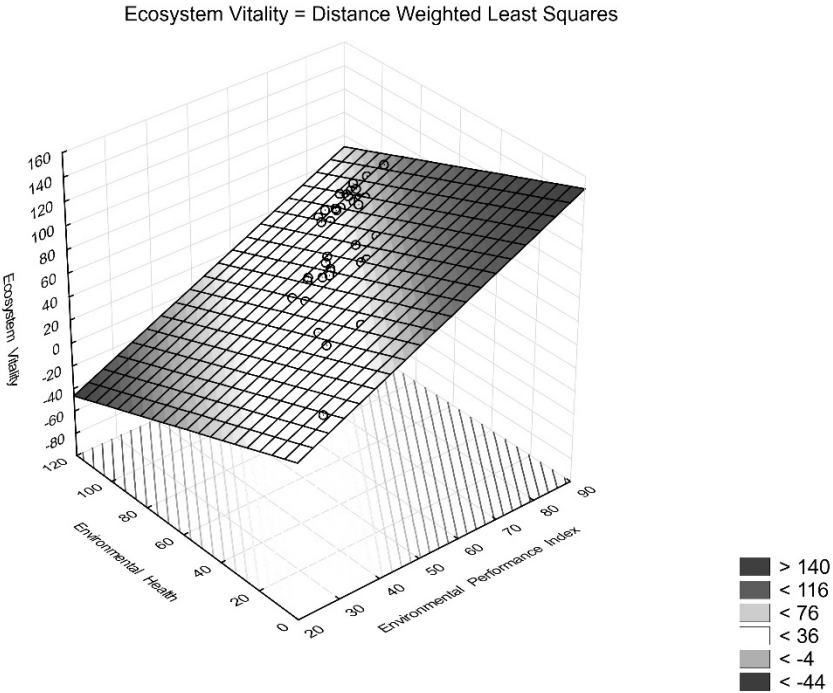
power plants, and high fossil fuel subsidies may have impacted the performance for several Middle Eastern and North African countries.



**Figure 2. Cluster analysis dendrogram of EPI, global scale, 2018**

Source: authors' own compilation based on EPI Results (<https://epi.envirocenter.yale.edu/>).

One of the consistent lessons of the EPI is that achieving sustainability goals requires the material prosperity to invest in the infrastructure necessary to protect human health and ecosystems. In a rapidly urbanizing world, it is important to build facilities for delivering improved sources of drinking water, managing wastewater, and mitigating pollution – such as through smokestack scrubbers. The inherent tension of sustainable development is that income growth too often comes at the cost of the environment, especially through the exploitation of natural resources and unchecked industrialization. The trade-offs between environmental performance and country wealth are also compounded by trade. The spillover costs of trade have so far been poorly captured in most metrics on the environment, though this is an area of active scholarship. Another enduring finding from the EPI is that the policy objectives constitute distinct dimensions of sustainability. The figure suggests tension, as economic growth creates resources to invest in environmental protection while at the same time adding to pollution burdens and habitat stress.



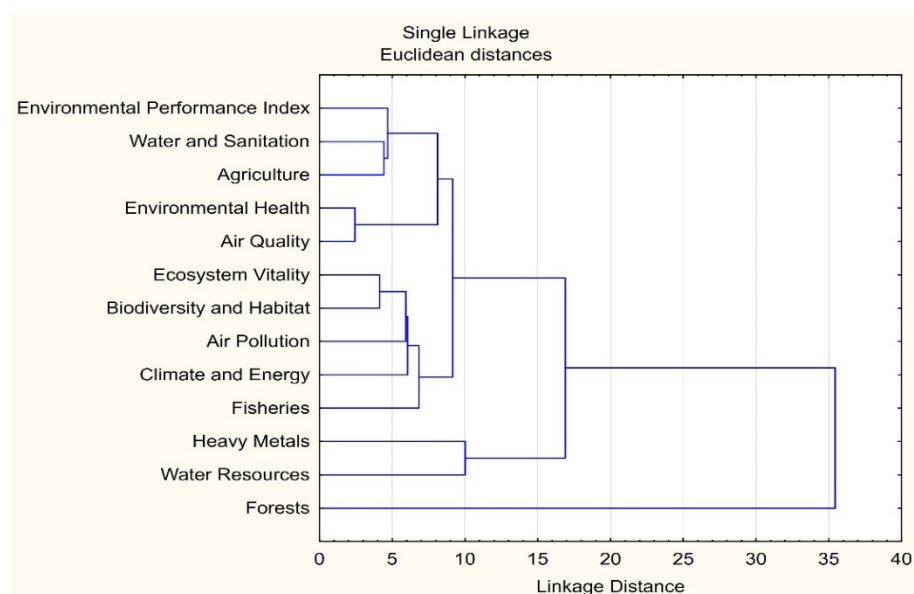
**Figure 3. 3D surface plot of EPI, global scale, 2018**

Source: authors' own compilation based on EPI Results (<https://epi.envirocenter.yale.edu/>).

Ukraine is among the leading countries of the world in terms of proven reserves of iron, zirconium ores, coal, graphite, china clay, and sulphur. Ukraine scored 4.11 points out of 7 on the 2018 GCR. Today the country is facing a number of serious problems caused by the escalating conflict in the eastern part of the country and the occupation of Crimea. Coupled with accumulated structural problems, in 2015 this led to a 9.9% slump in GDP and a 13.4% decline in industrial production. Against the backdrop of resource limitations and external threat, the conversion of Ukraine's economic development model and structural transformation are becoming a matter of survival. Ukraine does have the potential to advance green economic activities, primarily in the fields of renewable energy, energy performance, and organic farming. In 2014, the average annual growth in the bioenergy sector amounted to 42% while, according to the national renewable energy action plan up to 2020, the share of renewable energy in the gross final energy consumption is expected to reach 11%.

Globalization accelerates the modification of resources of fundamental importance to life (fresh water); it appropriates general-global assets (air, oceans); it depresses the ability of countries to provide their own environment; it destroys the historical ties of farmers with the land through industrialization and ecological

distancing; it substitutes homogeneity, monoculture, and biodiversity; and it directly serves uncontrolled corporate power. The problem will not be solved without profound fundamental changes in all aspects of its formation. Considering the presence of global problems such as climate change, it is important to transform the system with the mandatory observance of the basic rules of environmental sustainability. Today, the question is the introduction of a new alternative system that completely transforms the current dominant hierarchy of values in which stability was left out of focus, and the top priority – corporate profits.



**Figure 4. Cluster analysis dendrogram of EPI, Ukraine, 2018**

Source: authors' own compilation based on EPI Results (<https://epi.envirocenter.yale.edu/>).

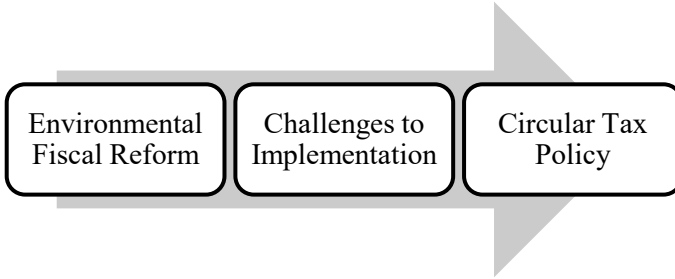
### 3. Green taxes and financial incentives towards the circular economy

Environmental Fiscal Reform (2018)<sup>1</sup> – including increasing green taxation and the phase-out of environmentally harmful subsidies as well as financial incentives, VAT reductions and tax breaks for green initiatives – provides the perfect conditions for the *transition to a circular economy*. Both European businesses and consumers can directly benefit from such economic instruments, which can help overcome some of the “challenges to implementation” that are mentioned above

<sup>1</sup> [www.oecd.org/tax/tax-policy/tax-and-environment.htm](http://www.oecd.org/tax/tax-policy/tax-and-environment.htm)



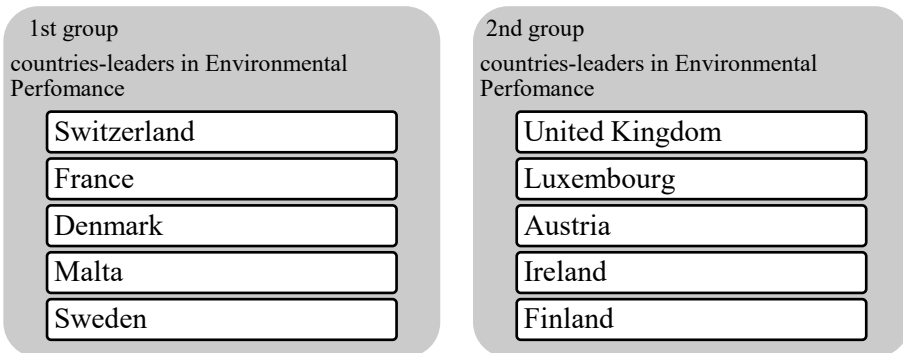
by introducing a pricing system that encourages circular business models and behavior, addressing negative externalities throughout the production and distribution chain; and creating demand for eco-friendly technology to advance smart design, reuse and recycling.



**Figure 5. Steps to the Circular Economy**

Source: authors' own compilation.

Careful measurement of environmental trends and progress provides a foundation for effective policymaking (Fig. 5). The 2018 Environmental Performance Index (EPI) ranks 180 countries on 24 performance indicators across ten issue categories covering environmental health and ecosystem vitality (Fig. 6). These metrics provide a gauge at a national scale of how close countries are to established *environmental policy goals*. The EPI thus offers a scorecard that highlights leaders and laggards in environmental performance, gives insight into best practices, and provides guidance for countries that aspire to be leaders in sustainability.



**Figure 6. Countries-leaders in Environmental Performance**

Source: authors' own compilation.

As a share of GDP, Switzerland has the 12<sup>th</sup> lowest environmentally-related tax revenue among 34 OECD and 5 partner economies. In 2014, environmentally

related tax revenues were 1.76% of GDP, compared to 2.0% on average among the 39 countries. In Switzerland, taxes on energy represented 51% of total environmentally related tax revenue, compared to 70% on average among the 39 countries.

Switzerland has higher average tax rates on transport fuels (17.71 EUR/GJ) than on fuels used for heating and process purposes (1.38 EUR/GJ) or electricity generation (1.19 EUR/GJ). Switzerland has the 3<sup>rd</sup> highest tax rate on energy on an economy-wide basis, at EUR 5.92 per GJ, compared with EUR 2.7 per GJ on a simple-average basis across the 34 OECD and 7 partner economies. It is also important to mention the financial masses involved. According to the Eurostat definition, France cleared a little more than €43 billion in environmental tax revenues in 2014, which puts it in third place behind Germany (€48 billion) and Italy (€47 billion). While the European definition offers the advantage of facilitating comparisons, it does have several limitations (Table 1).

**Table 1. Share of emissions priced and average price signals from tax & emissions trading systems (ETS), in France, 2016**

	CO <sub>2</sub> emissions by sector (in t CO <sub>2</sub> )	TAX	
		Average price (in EUR / t CO <sub>2</sub> )	Share of emissions covered
Agriculture & Fishing	11,394	<b>24.41</b>	89%
Electricity	27,113	<b>12.36</b>	100%
Industry	102,676	<b>8.28</b>	55%
Offroad transport	4,798	<b>21.27</b>	11%
Residential & Commercial	114,853	<b>18.67</b>	38%
Road transport	127,112	<b>180.16</b>	100%
Total <sup>2</sup>	387,945	<b>63.75</b>	68%

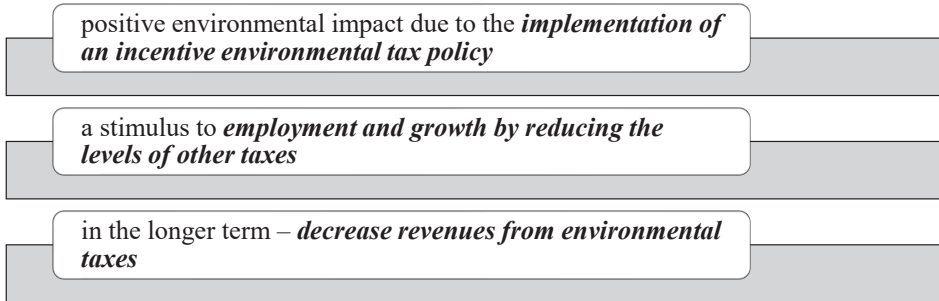
Source: authors' own compilation.

If environmental taxation is increased with a view to encouraging changes in behavior and triggering energy transition, this rise must not be brought in unconditionally; it must be offset by a drop in other taxes. This is referred to as the “green tax shift”. This type of policy has already been implemented in other countries, such as Sweden and Denmark.

For these changes to take hold, incentives should be put into place. An appropriate tax policy can provide such incentives (Fig. 7). However, our tax system is not yet adapted to promoting the circular economy. According to the Ex'tax Project (2016), today, 51 percent of globally collected taxes are derived from labor taxation, while environmental (or consumption) taxes – energy, transport, pollution and resources – represent only 6 percent.

Georges Bock (2017) said: “shifting towards a circular economy will involve designing a tax system with a different taxation of renewable and non-renewable resources. Why should we heavily tax something that we want companies

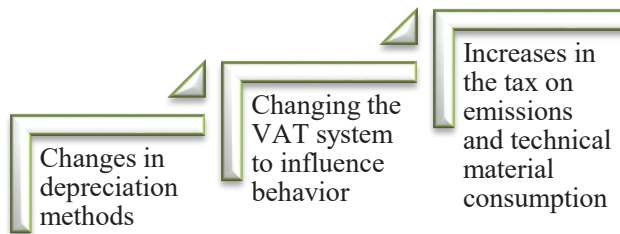
to use – humans, who can themselves be considered a renewable resource – while having low taxation on non-renewable material resources?”



**Figure 7. Benefits of a “green tax shift”**

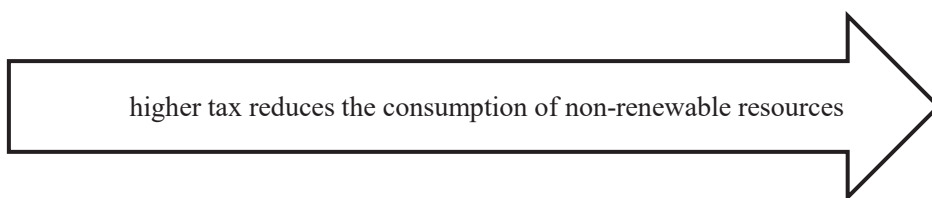
Source: authors’ own compilation.

As early as 1993, the European Commission noticed this need for a tax shift. In 2010, an EU report (2018) stated that “shifting taxes away from labor should be a priority for all Member States.” More recently, the Rifkin report also outlined the need for a taxation system that would place Luxembourg as the EU circular economy leader on the basis that “an innovative tax system motivates actions to innovate on the production side through resource efficiency improvements that cut costs, as well as motivating customers to purchase more energy and resource efficient products to lower costs.” This would ultimately imply a holistic change to the tax system by shifting the tax burden from labor to (non-renewable) resources, waste and emissions in order to incentivize economic actors to adopt more sustainable business models. We can and should take smaller steps to change the tax system to support a circular economy (Fig. 8, 9). Among others, the following ideas have been presented:



**Figure 8. Steps to the circular tax system**

Source: authors’ own compilation.



**Figure 9. Increases in the tax on emissions and technical material consumption**

Source: authors' own compilation.

In industry, digitalization based on the concept of “Industry 4.0” and the “Smart economy” involves the digitalization of all processes and their integration into the intellectual, technological platform of modern European society. It emphasizes the undoubted urgency and practical significance of issues of digital transformation, the justification and the formation of the appearance of digital systems and the development of the infrastructure of the new economy.

#### **4. Global Development of a New Economy of the EU Civilization-Integration Model**

The New Economy is the stage of post-industrial civilization development in which information and other high technologies, with innovative mechanisms, turn into a decisive factor of sustainable development. The New Economy is not just a noticeable trend or phenomenon (correlated with the stock market or the Internet), but a new era in the development of a globalizing world economy, the material basis of a post-industrial information society. The New Economy, both structurally and institutionally, and as a mechanism of development exists alongside the traditional economy, intertwines, interacts with it, forming integrated, transitional forms. Some of these forms are quite viable, others do not stand the test of practice, including because sufficient conditions for their application have not yet matured.

Usually, the New Economy refers to those sectors of the national economy, where computer and communication equipment, software, and the entire system of forming, storing, disposing and receiving information, largely built on the Internet produced. This is a rather narrow picture of the New Economy. Of course, the basis of the New Economy is the info-communication component, which largely determines the essence of this phenomenon. The very content of most economic operations contains the possibility of replacing a real physical object with information about it, and progress in the field of information technologies provides an opportunity and acts as a catalyst for the development of these operations on a global scale, initiating and activating the globalization of the world economy and its individual spheres.

The policy of Europe in the conditions of the New Economy, which aims at the transition to an innovative development path, is that the government creates a mechanism to achieve technological advantages and economic security of the country in the course of international competition, legal and organizational-economic conditions for the equitable distribution of the effect of innovation provide centralized funding for priority research areas that are, or may be, a source of imagery and innovation, sustainable competitive advantage of Europe can be achieved on this basis in the global market.

The integrated estimating indicator – the New Economy Development Index (NEDI), determines the current development of the New Economy in the EU. Analyzing the trends of the new economy in the EU member states and some, other countries in Europe one can trace the existing tendency towards the heterogeneity of countries for the period of 2000–2016 (see Fig. 10). In 2017, Europe, with a consistently high level of internationalization of technology, the average score for skills for startups grew by 3.4%. For example, Switzerland improved its performance by 80%. However, further growth should pay attention to geographical and social networking, which will unite entrepreneurs.

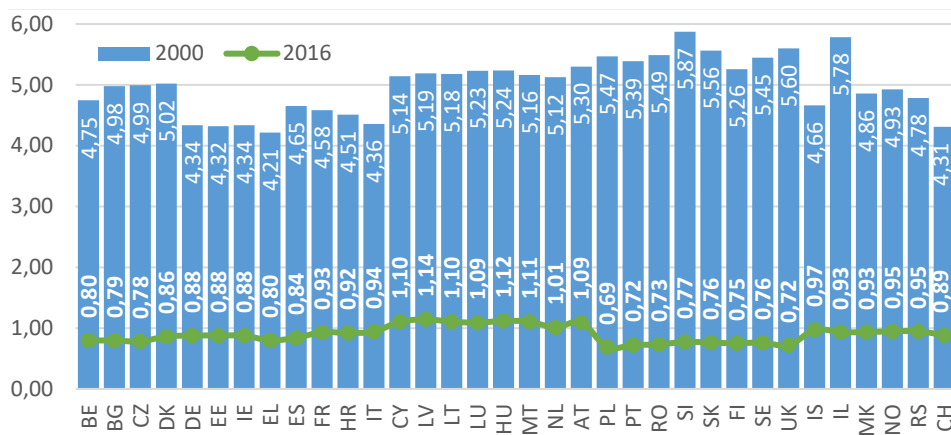


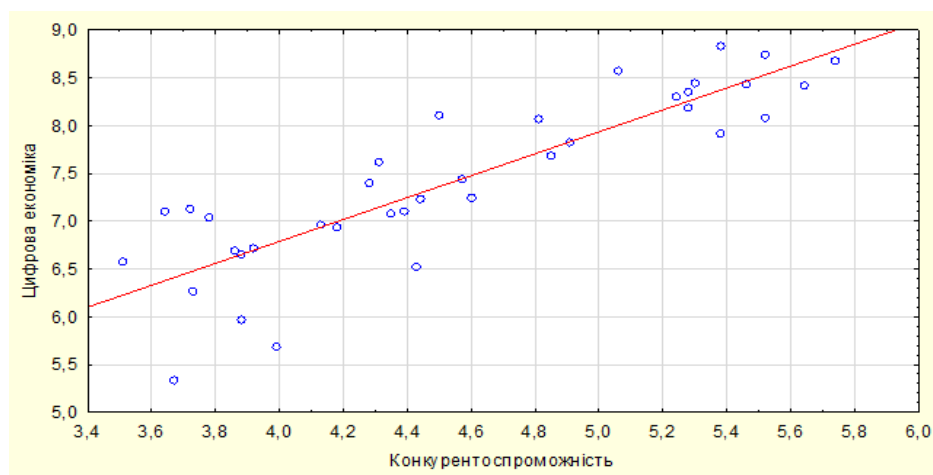
Figure 10. Integral dynamics of the size New Economy Index in EU member states

Source: authors' own compilation.

For example, for Belgium, the steady growth of the index observed from 18,539 in 2000 to 21,085 in 2016, Bulgaria – from 18,937 to 22,057, in the Czech Republic – from 19,530 to 22,092, Denmark – from 19,827 to 22,674. For a number of the following countries, there was a reverse trend, for example, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria and Poland showed a slight growth. Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, United Kingdom (UK) showed a slight loss of position; a slight recession occurred in Iceland, with

the tendency for growth to be shown by Israel, Macedonia, Norway, Serbia, lost its position in Switzerland. Thus, preservation of the growth rate carried mainly by new countries, where there is a stable growth, which, in our opinion, is conditioned by the modern economic and social policy of the countries aimed at finding ways to more effectively solve a number of major problems.

As the New Economy is developing at a rapid pace today – 10% per year, more than three times the global economic growth rate – it has a significant impact on competitiveness. In 2015, the global New Economy, thanks to digital technologies, generated \$24 trillion. US e-commerce accounted for 30% of all global deals, many of which were using mobile devices. In most countries, the digital economy accounts for approximately 4–7% of GDP. The lowest figures are in Austria (3.8%) and Norway (3.9%), while Ireland (11.9%), Korea (9.6%) and Japan (8.1%) ranked in the first three positions. Therefore, in order to further determine the impact on the link between the digital economy and competitiveness (see Fig. 11).



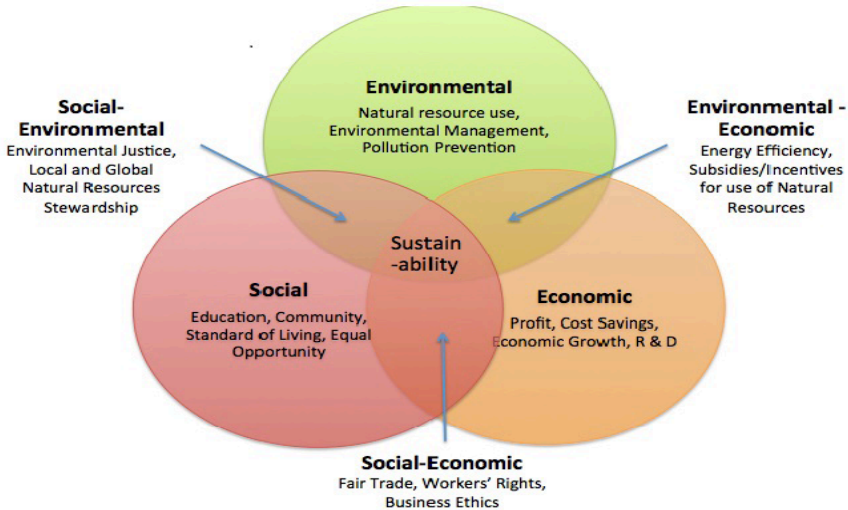
**Figure 11. Graphic representation of the relationship between rank values**

Source: authors' own compilation.

In the EU countries, in general, there is a steady growth of the New Economy; for example, the leaders in 2016 were Slovakia, Slovenia, Finland and Norway, Switzerland, together with Belgium, Bulgaria, the Czech Republic and Denmark, followed by non-EU countries Macedonia, Serbia and Israel. This is as a result of the implementation of the innovation development programs, the effectiveness of the management of these programs, and the availability of the necessary organizational and economic management structures, infrastructure and regulatory instruments. The role of targeted programs is growing in many countries of the world, which is primarily due to the impact of the 2008 global financial crisis,

the increasing complexity and the scale of the tasks, the complications of trade and economic relations between countries, and the systemic shifts in the world economy.

Since the formation of the New Economy is associated with certain institutional transformations, in our opinion, these transformations relate more to three components: environmental, social and economic. Every country in the world is characterized by some uneven economic development of its regions. This leads to an increase in the need for budget allocations and an increase in the cost of finding new forms of organizational, legal, and resource support for the development of depressed territories. However, this reduces the competitiveness and investment attractiveness of the region, adversely affecting its general position (see Fig. 12).



**Figure 12. Development of European sustainability spheres**

Source: <http://www.sphere.eu/en/Group/Sustainable-Development/>

The development of Europe, associated with a profound transformation of the structure of society, began at the end of the 20<sup>th</sup>; it will cover a significant part of the 21<sup>st</sup> century, although it will occur with different depths and speeds in different countries and local cultures. It is almost impossible to imagine what the world will look like in the middle of the 21<sup>st</sup> century, let alone at the end. However, one can outline the main contours of the transformation of society based on the fact that the future is born from the past and present; it is important to consider the embryos, but not to invent the desirable.

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## Streszczenie

### CZYNNIKI KSZTAŁTUJĄCE OTOCZENIE PODATKOWE ROZWOJU ALTERGLOBALNEGO

*W niniejszym artykule przeanalizowano wpływ otoczenia gospodarczego na rozwój otoczenia podatkowego w kontekście rozwoju alterglobalnego. Uznano, że globalizacja gospodarcza oddziałuje negatywnie na środowisko, ponieważ jest ona pociągana za sobą stały wzrost konsumpcji towarowej, zwiększenie wykorzystania zasobów i wzrost ilości odpadów zanieczyszczających oceany, ziemię i powietrze. Dlatego zaproponowano przeanalizowanie i rozważenie wdrożenia alterglobalizacji jako procesu zorientowanego na samostanowienie ludzi, społeczności i narodów. W tym kontekście opracowano koncepcję reformy podatkowej w dziedzinie środowiska, w tym zwiększenia zielonego opodatkowania i wycofywania dotacji działań szkodliwych dla środowiska, a także wprowadzenia zachęt finansowych, obniżki podatku VAT oraz ulg podatkowych dla inicjatyw ekologicznych – zapewniających idealne warunki do przejścia do gospodarki cyrkularnej. Ponieważ nowe sektory gospodarki rozwijają się obecnie w szybkim tempie, wynoszącym 10% rocznie, co stanowi więcej niż trzykrotność globalnego tempa wzrostu gospodarczego, mają one znaczący wpływ na konkurencyjność.*

**Słowa kluczowe:** alterglobalizacja; gospodarka cyrkularna; wskaźnik wydajności środowiskowej; podatki ekologiczne; polityka podatkowa służąca rozwojowi gospodarki cyrkularnej; nowa gospodarka.