

Fiscal Mechanisms for Adapting Veteran Business to Environmental and Energy Challenges

Serhii Petrukha¹, Dmytro Konovalenko², Nina Petrukha³

¹Ph.D. (Economics), Associate Professor, Professor of the Department of Transport and Logistics, West Ukrainian National University, Ternopil, Ukraine, e-mail: psv03051984@gmail.com, ORCID: <https://orcid.org/0000-0002-8859-0724>

²Ph.D. (Economics), Doctoral Student, West Ukrainian National University, Ternopil, Ukraine, e-mail: konovalenko270291@gmail.com, ORCID: <https://orcid.org/0000-0001-6314-3525>

³Ph.D. (Economics), Associate Professor, Kyiv National University of Construction and Architecture, Kyiv, Ukraine, e-mail: nninna1983@gmail.com, ORCID: <https://orcid.org/0000-0002-3805-2215>

Citation:

Petrukha, S., Konovalenko, D., & Petrukha, N. (2026). Fiscal Mechanisms for Adapting Veteran Business to Environmental and Energy Challenges. *Economics, Finance and Management Review*, (2(26), 46–58. <https://doi.org/10.36690/2674-5208-2026-2-46-58>

Received: June 01, 2026

Approved: June 27, 2026

Published: June 30, 2026



This article is an open access article distributed under the terms and conditions of the [Creative Commons Attribution \(CC BY-NC 4.0\) license](https://creativecommons.org/licenses/by-nc/4.0/)



Abstract. Under the conditions of the full-scale armed aggression of the Russian Federation against Ukraine, the growth in the number of security and defence forces and the increase in the number of war veterans have made the issue of their support, in particular through reintegration institutions in the form of veteran business, especially acute. At the same time, the destruction of critical infrastructure, primarily energy infrastructure, as well as the climate commitments of our state, form a qualitatively new context for the entrepreneurial activity of veterans. The article examines the problem of forming and implementing fiscal mechanisms aimed at supporting the adaptation of veteran business to new environmental and energy challenges. The purpose of the article is to substantiate the authors' concept of a fiscal incentive system that integrates support for veteran entrepreneurship with the instruments of the green economy. Based on a comparative analysis of international experience from the United States, Germany, Poland, Israel, and Lithuania, effective models of fiscal incentives are identified and the possibility of adapting them to the conditions of Ukraine is substantiated. The essence of the concept of "entrepreneurial resilience of veterans" in the environmental and energy dimension is revealed. It is established that Ukraine currently lacks systemic integration of fiscal instruments supporting veteran business and instruments of green transformation. The authors develop a conceptual model of a fiscal mechanism for adapting veteran business to environmental and energy challenges and propose a set of specific instruments, namely the "Veteran Energy Credit" (VEC, 30% of investments in renewable energy sources), accelerated depreciation of green equipment (three years), a unified social contribution bonus for veteran green producers, preferential VAT (7%) on renewable energy products, a local Green Veteran Fund, and a carbon credit. The results of the study have practical significance for public authorities, forming a scientifically substantiated basis for updating fiscal and energy policy in Ukraine's post-war reconstruction.

Keywords: fiscal mechanisms, veteran business, environmental and energy uncertainty, enterprise adaptation, energy security, green economy, bioeconomy, tax incentives, sustainable development, entrepreneurial resilience, environmental policy.

JEL Classification: H25, H32, Q28, Q48, L26.

Formulas: 0; **fig.:** 1; **tabl.:** 2; **bibl.:** 26.

Introduction. The full-scale invasion of Ukraine by the Russian Federation, which began on 24 February 2022, generated not only a humanitarian and military crisis, but also a profound structural transformation of the country's socio-economic space. According to the Unified State Register of War Veterans, more than 1.3 million persons had received the status of combatant as of September 2025, and this figure is steadily increasing. According to government forecasts (Tilikina & Piesha, 2023), after the end of the war the number of veterans and members of their families may reach 5 to 6 million persons. However, a significant share of veterans demonstrate entrepreneurial activity or intend to engage in business after completing their service.

At the same time, Ukraine has faced the systemic destruction of critical energy infrastructure facilities. According to the Fourth Rapid Damage and Needs Assessment (RDNA4), prepared by the World Bank jointly with the Government of Ukraine, the European Commission, and the United Nations, during 2022-2024 the number of damaged or destroyed energy assets increased by 70% compared with the previous assessment, while the needs for rebuilding the energy sector were estimated at almost USD 68 billion. This has substantially increased the cost and instability of energy supply for small and medium-sized enterprises (World Bank et al., 2025). For veteran business, this problem is particularly acute because the absence of reliable and affordable energy supply leads to reduced production capacity, rising costs, and ultimately enterprise bankruptcy.

The most recent, Fifth Rapid Damage and Needs Assessment (RDNA5) (World Bank et al., 2026), released on 23 February 2026 by the Government of Ukraine, the World Bank Group, the European Commission, and the United Nations, covers 46 months of the Russian-Ukrainian war (February 2022 to December 2025) and records the further deepening of environmental and energy challenges. As of 31 December 2025, Ukraine's direct damage had increased to more than USD 195 billion, compared with USD 176 billion under RDNA4, while total recovery and reconstruction needs were estimated at almost USD 588 billion over the next decade. In the energy sector, which was subjected to intensified attacks during a winter of record intensity, the number of damaged or destroyed assets, including generation, transmission, distribution, and district heating assets, increased by approximately 21% compared with RDNA4, and energy reconstruction needs reached almost USD 91 billion. This means that the problem of reliable and affordable energy supply for small, medium-sized, and veteran business has not merely remained acute, but has acquired a chronic character, increasing the relevance of the proposed fiscal mechanisms of adaptation.

In parallel, Ukraine, as a future EU member, has undertaken commitments in the field of climate policy and the green transformation of the economy. The Association Agreement with the EU and the European Green Deal generate regulatory pressure towards decarbonisation and higher

energy efficiency, which means that businesses, including veteran businesses, must adapt to new environmental standards.

The adoption of the Law of Ukraine “On Veteran Entrepreneurship” of 31 July 2025 No. 4563-IX, which entered into force in February 2026, established an institutional framework for state support of veteran entrepreneurs (On Veteran Entrepreneurship, 2025). However, Ukraine still lacks a systemic fiscal policy that would combine support for veteran entrepreneurship with green economy instruments. Existing measures are fragmented and do not form a unified adaptation mechanism capable of neutralising environmental and energy risks for veteran business. It is precisely this contradiction between the severity of the problem and the insufficiency of available instruments that determines the relevance of this study.

Literature Review. The issue of fiscal incentives for the entrepreneurial activity of veterans lies at the intersection of several research areas: public finance, the economics of sustainable development, and entrepreneurship theory.

In foreign academic literature, a considerable number of studies have been devoted to support for veteran entrepreneurship. In particular, Loughran (2014) proved that the higher level of unemployment among young veterans is a temporary phenomenon associated with active job search rather than discrimination, which indirectly confirms the entrepreneurial potential of veterans. J. M. Haynie and D. Shepherd, based on the experience of wounded soldiers and marines, substantiated a theory of discontinuous career transitions caused by traumatic events and found that the ability to form a coherent narrative about lived experience is essential for successful career reorientation (Haynie & Shepherd, 2011). At the same time, these studies do not examine the environmental and energy dimension of veteran business adaptation.

In the field of fiscal incentives for the green transformation of small and medium-sized enterprises (hereinafter referred to as SMEs), studies by the Organisation for Economic Co-operation and Development (OECD) are of fundamental importance. In particular, Financing SMEs and Entrepreneurs 2024 (OECD, 2024) systematises instruments for financing the green transition of SMEs and notes that governments are increasingly developing instruments linked to sustainability indicators, while diversification of financial sources is a necessary condition for SME participation in green transformation. Kozluk and Zipperer (2014) demonstrated that green fiscal mechanisms may have both incentive and regulatory characteristics, which is important for their differentiated application to veteran business.

Other studies are also fundamentally important for substantiating the mechanisms proposed in this article (Petrukha et al., 2024; Petrukha, 2026b). They established that veteran enterprises in Ukraine have higher resilience potential compared with the general population of SMEs; however, the

realisation of this potential is restrained by the lack of targeted fiscal instruments and systemic integration of existing incentives. This work constitutes the direct theoretical basis for the conceptual proposals of the present article.

Among Ukrainian researchers, K. Kraus, A. Ihnatiuk, and N. Kraus revealed the institutional, financial, and project components of the development of veteran entrepreneurship in Ukraine (Kraus et al., 2023). N. Tilikina and I. Piesha analysed Ukraine's state veteran policy and ways to ensure its effectiveness with respect to the reintegration of combatants into civilian life (Tilikina & Piesha, 2023). Fiscal and regulatory instruments for the green transition of small and medium-sized business are systematically presented in the OECD analytical report *No Net Zero Without SMEs* (OECD, 2021).

Our study (Petrukha, Konovalenko, et al., 2026) is especially valuable for understanding the fiscal context in which the proposed mechanisms should operate. It constructs an econometric model according to which each increase in defence expenditures by UAH 1 billion leads to an increase in total state budget expenditures by UAH 1.32 billion, which objectively narrows the fiscal space for supporting veteran entrepreneurship. This result is an argument in favour of automatic fiscal stabilisers, such as credits and benefits, rather than discretionary expenditure programmes. In the study by Petrukha, Petrukha, et al. (2026), a conceptual framework for bioeconomic recovery is formed, in which the socio-economic reintegration of veterans and green fiscal incentives are considered system-forming elements of managed recovery. The methodological architectural logic of that work corresponds to the three-layer model proposed in this article.

In addition, Petrukha et al. (2025) established that the correlation between the level of military expenditure and the budget deficit is $r = -0.987$ ($p < 0.001$), which confirms a systemic constraint on the financing of civilian business-support programmes. This substantiates the expediency of prioritising tax credits, with compensation through the reduction of liabilities, rather than direct budget subsidies in the system of mechanisms proposed by the authors.

With regard to the energy component of veteran business, the study by Tröndle et al. (2024) occupies a key place. It shows that Ukraine is capable of fully covering its energy needs through renewable energy at costs comparable to conventional sources, while a diversified portfolio of renewable energy sources (hereinafter referred to as RES) can transform the country into a net exporter of electricity. This confirms the strategic expediency of the fiscal instruments developed by the authors to stimulate green investments by veteran business precisely now, during the early period of post-war recovery.

At the same time, an analysis of academic works demonstrates the absence of comprehensive studies that systematically combine fiscal

incentives for veteran business with green economy instruments under conditions of wartime and post-war reconstruction. The following issues remain unexplored:

- 1) what should be the design of a fiscal mechanism that simultaneously addresses the problem of entrepreneurial reintegration of veterans and green transformation;
- 2) what foreign experience exists regarding the integration of these two directions of fiscal policy;
- 3) which specific instruments are optimal for the conditions of Ukraine.

These gaps determine the direction of this study.

Aims. The aim of the article is to develop the authors' concept of a system of fiscal mechanisms for adapting veteran business to environmental and energy challenges under the conditions of contemporary Ukraine, based on a comparative analysis of international experience and taking into account the specific features of wartime and the tasks of post-war reconstruction.

To achieve this aim, the following objectives are addressed:

- 1) to systematise the theoretical foundations of fiscal incentives for veteran business in the environmental and energy dimension;
- 2) to conduct a comparative analysis of international experience;
- 3) to assess the current state of fiscal regulation of veteran business in Ukraine;
- 4) to develop a conceptual model and a system of specific fiscal instruments.

Methodology. The concept of “veteran business” or “veteran-owned business” in contemporary academic literature is interpreted as entrepreneurial activity carried out by persons who have the status of combatants or war veterans (U.S. SBA, 2024). Under the conditions of armed conflict, this concept acquires an additional dimension, that is, it refers not only to enterprises managed by veterans, but also to those who return from service and seek to realise their entrepreneurial potential in civilian life.

The authors' approach to defining “entrepreneurial resilience of veterans” consists in interpreting this phenomenon as the ability of a veteran entrepreneur to adapt effectively to adverse external conditions, in particular environmental and energy instability, by mobilising competencies acquired during service, such as adaptability, leadership, and stress resistance, in combination with appropriate fiscal incentives provided by the state.

Fiscal mechanisms for adapting veteran business to environmental and energy challenges encompass a set of tax and budget policy instruments aimed at reducing the costs of enterprises in transitioning to green technologies, increasing their energy independence, and strengthening competitiveness under conditions of energy supply instability (OECD, 2024). Such mechanisms include investment tax credits, accelerated depreciation of green equipment, social insurance contribution benefits, reduced VAT rates on green products, targeted subsidies, and funds.

From a theoretical perspective, combining fiscal benefits for veterans with green incentives is a manifestation of the concept of the “double dividend” of fiscal policy (Kozluk & Zipperer, 2014): the first dividend consists in the socio-economic reintegration of veterans through entrepreneurship; the second consists in accelerating the green transformation of the economy. Thus, a properly designed fiscal mechanism is capable of simultaneously addressing two strategically important problems.

Results. To formulate substantiated proposals for improving fiscal policy in Ukraine, the authors conducted a comparative analysis of the experience of five countries that have developed systems of support for veteran entrepreneurship and instruments of green fiscal policy. The results are systematised in Table 1.

Table 1. Comparative analysis of international experience in fiscal incentives for veteran business in the environmental and energy dimension

Country	Main fiscal instruments for veteran business	Environmental and energy preferences	Characteristics of the support system
United States	VBOC and Boots to Business programmes (SBA); Veterans Advantage programme (reduced guarantee fees for 7(a) loans); veteran-owned and SDVOSB preferences in public procurement	Investment Tax Credit (ITC, 30% under IRA 2022); accelerated depreciation of RES equipment (MACRS, five years); Production Tax Credit (PTC); bonus credits for low-carbon projects	Developed, since there are more than 1.6 million veteran enterprises, approximately 5.5% of business owners; employment is almost 3.3 million persons (Census Bureau / SBA, 2024)
Germany	Kreditanstalt für Wiederaufbau (KfW) credit programmes (low rates for SMEs); zero VAT (0%) on the installation of solar power plants (hereinafter SPPs) from 1 January 2023; BAFA subsidies for improving enterprise energy efficiency	Special depreciation for SMEs (§7g EStG); declining-balance depreciation up to 30% (“investment booster”, July 2025-2027); zero VAT on SPPs from 1 January 2023; EEG market premium for small RES producers	Systemic, since there is no special veteran track, but SMEs have broad access to green instruments of KfW and the Renewable Energy Sources Act, Erneuerbare Energien Gesetz (hereinafter EEG); there is no integration of the veteran and green blocks
Poland	Preferential CIT rate of 9% for small taxpayers with income up to EUR 2 million; ecological credit for enterprises through the state bank Bank Gospodarstwa Krajowego; grants and preferential loans through Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (hereinafter NFOŚiGW)	Energia Plus programme (NFOŚiGW, preferential loans and grants for RES for enterprises); auction system for small RES producers; exemption from excise duty on self-produced electricity from RES for installations up to 1 MW	Medium, since veteran business is not singled out separately in the fiscal system; general SME programmes are available to veterans on an equal basis with other entrepreneurs
Israel	Israel Innovation Authority (hereinafter IIA) programmes, including R&D grants for technology start-ups, including those founded by reservists;	Research and development (hereinafter R&D) grants for clean technology start-ups through IIA; possibility of using the deposit of a discharged service member	High technological orientation, since the Israeli army (IDF) is a significant source of entrepreneurial personnel, including graduates of the signals

Country	Main fiscal instruments for veteran business	Environmental and energy preferences	Characteristics of the support system
	preferential loans through the Investment Centre of the Ministry of Economy; tax benefits in development zones (Priority Areas A and B, the least developed peripheral regions and medium-priority regions)	(“pikadon”) to start one’s own business; support for technological sandboxes in the field of clean energy	intelligence unit Unit 8200 and the Directorate of Defense Research and Development of the Ministry of Defense of Israel, MAFAT; a specific culture of reservist entrepreneurship
Lithuania	Reduced corporate tax rate for small enterprises (0% in the first year of activity, then 6-7% with income up to EUR 300 thousand); entrepreneur support programmes through Investicijų ir verslo garantijos, INVEGA; EU subsidies for start-ups and SMEs	Subsidies and preferential loans for RES equipment through the business support agency LVPA; support for energy efficiency under EU programmes (Horizon, Recovery and Resilience Facility); exemption from excise duty on self-produced renewable electricity	Basic, since veteran business is not singled out in the benefits system; general EU financing instruments for SMEs are available; there is no special programme for combatants
Ukraine (current state)	Law “On Veteran Entrepreneurship” (status for five years, grants, compensation of interest on loans); Own Business grants for veterans up to UAH 1 million; single tax of Group III under the simplified taxation system (5%); Affordable Loans 5-7-9%	Green tariff (Feed-in Tariff, FiT) for small RES producers without special veteran preferences; absence of systemic integration of veteran and green fiscal blocks	Fragmentary, since systemic environmental-fiscal instruments for veterans are absent; benefits are temporary and not integrated with green transformation; enterprises have high energy vulnerability

Source: compiled by the authors based on U.S. SBA (2024), NFOŚiGW (2023), BMWK (2024), IIA (2023), and European Commission (2023).

As the data in Table 1 show, the United States and Israel, countries with long experience of armed conflicts and a large share of veterans in the population, are distinguished by the most developed systems for integrating veteran support and green fiscal incentives. The key features of effective models are: (a) the targeted nature of benefits, linked to specific green investments; (b) systemic integration, covering income taxation, depreciation, VAT, and social contributions simultaneously; and (c) a clear administrative architecture, with designated administering authorities and transparent access criteria. The experience of Poland is particularly valuable for Ukraine, since both countries are post-socialist economies with similar institutional frameworks. The Polish SME support system has shown that a preferential Corporate Income Tax (hereinafter CIT) rate of 9% for small taxpayers, combined with preferential financing of green enterprise investments through the Energia Plus programme of the National Fund for Environmental Protection and Water Management, NFOŚiGW, can significantly stimulate the green transformation of business (NFOŚiGW, 2023). At the same time, veteran business in Poland is not distinguished as a separate category of beneficiaries, but has equal access to general SME instruments.

An analysis of the current legislation and regulatory framework of Ukraine indicates the gradual formation, yet still fragmentary nature, of fiscal support for veteran entrepreneurship. The Law of Ukraine “On Veteran Entrepreneurship” introduced the status of a veteran entrepreneurship entity, granted for five years, and a special regime of economic support, including grants, repayable and non-repayable financial assistance, compensation of interest rates on loans, and leasing payments (On Veteran Entrepreneurship, 2025). Veterans and members of their families have access to grants under the Own Business programme (up to UAH 1 million, provided that four jobs are created), preferential lending under the Affordable Loans 5-7-9% programme, and the simplified taxation system (single tax of Group III at a rate of 5%; the special wartime rate of 2% was abolished on 1 August 2023) (Kraus et al., 2023).

However, systemic integration of these measures with environmental and energy instruments is absent. In particular, the green tariff and the self-production mechanism, or net-billing, introduced in 2023 for small RES producers do not provide any additional preferences for veteran entrepreneurs. Programmes of the Energy Efficiency Fund are primarily oriented towards households and associations of co-owners of multi-apartment buildings and do not identify veteran business as a priority category. The National Energy and Climate Plan for the period up to 2030 does not contain a special veteran track (OECD, 2021).

Thus, the existing system of fiscal support for veteran business in Ukraine is characterised by: (1) the absence of integration with green incentives; (2) the temporary nature of most measures, which are linked to the legal regime of martial law; (3) insufficient coverage and low awareness among veterans regarding available instruments; and (4) the absence of differentiation depending on the degree of disability and military decorations.

Based on the analysis conducted, the authors developed a conceptual model of a fiscal mechanism for adapting veteran business to environmental and energy challenges (Figure 1). The model is built according to a three-layer architecture, in which the input (challenges and problems), the core (the system of fiscal instruments), and the output (expected results) function within a unified regulatory environment.

As shown in Figure 1, the fiscal mechanism includes six interrelated instruments, each of which is aimed at removing a specific barrier to the green adaptation of veteran business. The key principle is synergy, whereby none of the instruments is sufficient by itself, but together they form a full-fledged incentive system.

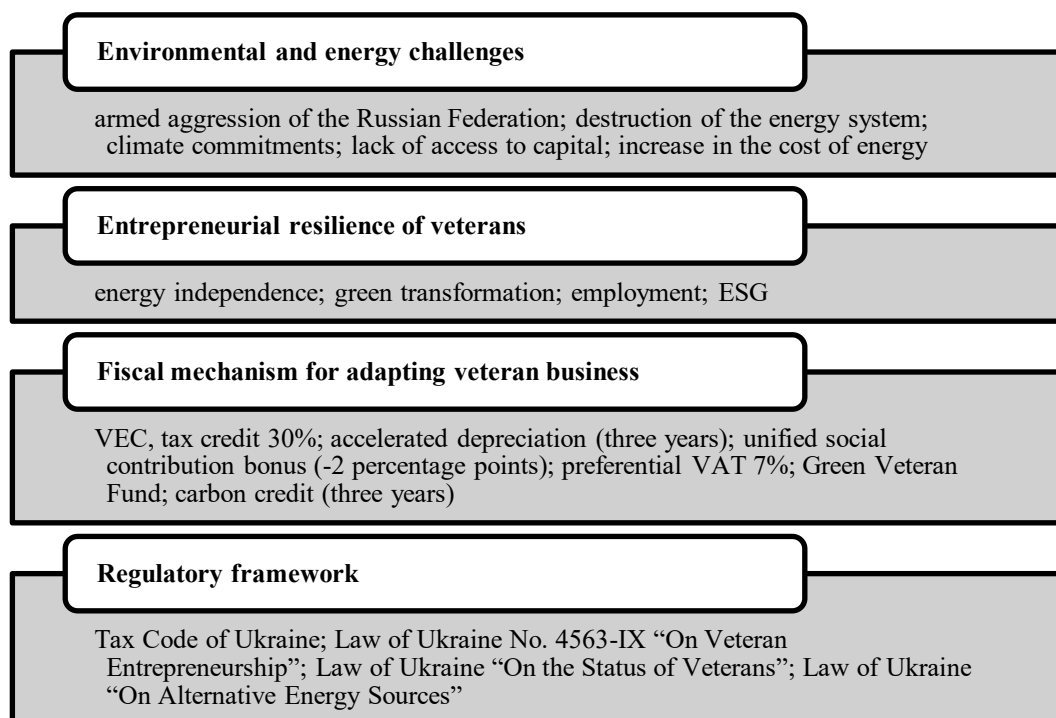


Figure 1. Conceptual model of the fiscal mechanism for adapting veteran business to environmental and energy challenges (alternative presentation in the form of an architectural scheme)

Source: developed by the authors based on Stender et al. (2026), Petrukha (2026a), Sokolenko et al. (2026), Petrukha, Oleksun, et al. (2026), and Petrukha & Petrukha (2020).

Based on the analysis of international experience and the conceptual model, the authors developed and substantiated a system of specific fiscal proposals, systematised in Table 2.

Discussion. The primary instrument whose implementation the authors propose to carry out within the framework of a single legislative initiative, namely a draft law amending the Tax Code of Ukraine and the Law of Ukraine "On the Status of Veterans", is the VEC. In its design, the VEC is analogous to the American Investment Tax Credit (ITC) under the Inflation Reduction Act of 2022, but adapted to the specific features of Ukrainian tax legislation. The specific mechanism of its operation is as follows: an individual entrepreneur or legal entity registered by a veteran owner, with a share in authorised capital of at least 51%, that has made an investment in RES equipment or an energy storage system in an amount of at least UAH 50 thousand, receives the right to reduce the assessed single tax or personal income tax, for individual entrepreneurs, by 30% of the cost of the confirmed investment in the reporting year, while the balance is carried forward to the next reporting year. It is proposed that the VEC be financed through a budget reimbursement mechanism with the participation of the Ukrainian Veterans Fund and in coordination with Ukraine Facility instruments.

Table 2. Authors' system of fiscal instruments for adapting veteran business to environmental and energy challenges in Ukraine

Fiscal instrument	Parameters / conditions of provision	Expected effect	Priority of implementation
Veteran Energy Credit (hereinafter VEC): investment tax credit of 30% for RES equipment	Veteran status of the entrepreneur plus investment in RES of at least UAH 50 thousand; reimbursement through the VAT account or offset against the single tax / personal income tax	Reduction of capital expenditures for autonomy; growth of investment in RES; reduction of energy vulnerability	High (period: one year from the date of adoption)
Accelerated depreciation of green equipment: rate of 33% instead of the standard 15-20%	Object: RES equipment, storage systems, energy-efficient equipment (class A++); depreciation period: three years	Reduction of the tax base; acceleration of investment payback; incentive for technological renewal	High (period: one year)
Environmental unified social contribution bonus: reduction of the contribution rate by 2 percentage points for veteran enterprises with a green production certificate	The enterprise uses at least 30% RES or has undergone an ISO 50001 energy audit; confirmation is provided annually	Reduction of operating costs; stimulation of legal employment; improvement of competitiveness	Medium (period: 1.5-2 years)
VAT benefit on green goods and services: rate of 7% instead of 20% for veteran enterprises producing RES	Sale of RES products, including electricity, thermal energy, and biogas; veteran status of the business entity	Reduction in the price of green products; development of the RES market; growth of income in the veteran sector	Medium (period: two years)
Local Green Veteran Fund: targeted local levy of 0.5% from large industrial enterprises to finance veteran green entrepreneurship	Decision of local councils; funds are used exclusively for grants / preferential loans to veteran entrepreneurs for green projects	Formation of local support funds; stimulation of the development of regional green clusters	Medium-low (period: 2-3 years)
Carbon credit for veterans: exemption from payments for CO ₂ emissions for the first three years for veteran enterprises transitioning to green technologies	Mandatory decarbonisation plan; emissions monitoring; participation in the voluntary market of carbon units	Reduction of compliance costs; incentive for green transformation; participation in international carbon markets	Low (period: 3-5 years; requires legislative regulation of the CO ₂ market)

Source: developed by the authors

The proposal concerning the unified social contribution bonus deserves separate attention. It should be recalled that the unified social contribution rate in Ukraine is 22%, which represents a substantial burden for SMEs. The proposed reduction by 2 percentage points, to 20%, for veteran enterprises that have confirmed the status of a green producer, through an energy audit mechanism under ISO 50001 or guarantees of origin for green electricity, is an administratively realistic step because it does not require new administrative structures, only an expansion of the functions of the State Agency on Energy Efficiency and Energy Saving of Ukraine and the Pension Fund of Ukraine. The application of targeted fiscal incentives for the green

transition of SMEs is consistent with OECD recommendations (OECD, 2021).

With regard to the local Green Veteran Fund, this proposal is based on the constitutional right of local councils to establish local taxes and fees (Article 143 of the Constitution of Ukraine). Since the list of local fees in Article 10 of the Tax Code of Ukraine is exhaustive, its implementation will require prior amendments to that Code. The introduction of a targeted levy of 0.5% of the wage fund or profit of large industrial enterprises that are payers of environmental tax will make it possible to form local pools of financing for veteran green enterprises without placing an additional burden on the state budget.

The proposed measures are structured according to the principle of “quick wins, medium-term reforms, and long-term transformations”. The VEC and accelerated depreciation can be implemented in the short term, within 1-1.5 years, through relatively simple amendments to the Tax Code of Ukraine. The unified social contribution bonus and reduced VAT require medium-term reforms, within 1.5-2 years, taking into account the budgetary constraints of wartime. The local fund and carbon credit are elements of the long-term green architecture that can be built within the framework of post-war reconstruction.

Conclusion. The article provides a comprehensive study of fiscal mechanisms for adapting veteran business to environmental and energy challenges under the conditions of contemporary Ukraine. Based on the results of the study, the following conclusions can be formulated:

- the authors’ definition of “entrepreneurial resilience of veterans” in the environmental and energy dimension is formulated as the ability of a veteran entrepreneur to adapt to energy supply instability and green regulatory requirements through the mobilisation of competencies acquired during service in combination with appropriate fiscal incentives provided by the state;
- the comparative analysis of the experience of the United States, Germany, Poland, Israel, and Lithuania demonstrated that in countries with a developed system of veteran support, namely the United States and Israel, fiscal instruments for veteran entrepreneurs are systemic and cover several levels of taxation simultaneously. At the same time, none of the countries studied, except the United States, has formed a full-fledged integrated green-veteran fiscal block, which emphasises the innovative character of the authors’ proposals;
- a systemic gap in Ukrainian fiscal policy is identified: existing measures to support veteran business are fragmentary, temporary, and not integrated with instruments of the green transformation of the economy;
- the authors’ conceptual model of the fiscal mechanism is developed. It is built according to the three-layer architecture “challenges - mechanism - results”, which makes it possible to systematically cover the entire chain

of the impact of fiscal incentives on the green adaptation of veteran entrepreneurship;

- a set of six fiscal instruments is proposed, namely: the Veteran Energy Credit, an investment tax credit amounting to 30% of the cost of RES equipment; accelerated depreciation of green equipment with a three-year write-off period; an environmental unified social contribution bonus, meaning a reduction in the unified social contribution rate by 2 percentage points; a preferential value added tax rate of 7% on renewable energy products; a local Green Veteran Fund; and a carbon credit, meaning a temporary exemption from payments for carbon emissions. For each instrument, quantitative parameters, conditions of provision, and priority of implementation are determined, with orientation towards different implementation horizons, from short-term to long-term measures.

Conflict of interest. The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest, except where separately disclosed in the manuscript.

Funding. The authors declare that the publication of this article was funded by the author. The research was conducted without separate funding.

Ethics statement. All procedures performed in this study complied with institutional and international ethical standards.

Generative AI statement. The authors declare that no Generative AI was used in the preparation of this manuscript unless otherwise explicitly stated in the manuscript.

Author contributions. All authors contributed equally to the development of the study concept, writing the text, and approving the final version of the manuscript.

Publisher's note. All claims expressed in this article are solely those of the author's and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References:

1. Bundesministerium für Wirtschaft und Klimaschutz. (2024). Renewable energies in figures: National and international development in 2023. BMWK. <https://www.bmwk.de/Redaktion/DE/Publikationen/Energie/erneuerbare-energien-in-zahlen-2023.html>
2. European Commission. (2023). SME country fact sheet: Lithuania 2023. https://single-market-economy.ec.europa.eu/smes/sme-strategy/sme-performance-review_en
3. Haynie, J. M., & Shepherd, D. (2011). Toward a theory of discontinuous career transition: Investigating career transitions necessitated by traumatic life events. *Journal of Applied Psychology*, 96(3), 501-524. <https://doi.org/10.1037/a0021450>
4. Israel Innovation Authority. (2023). The state of high-tech 2023. <https://innovationisrael.org.il/en/wp-content/uploads/sites/3/2023/07/2023-The-state-of-High-Tech.pdf>
5. Kozluk, T., & Zipperer, V. (2014). Environmental policies and productivity growth: A critical review of empirical findings. *OECD Journal: Economic Studies*, 2014(1), 155-185. https://doi.org/10.1787/eeco_studies-2014-5jz2drqml75j
6. Kraus, K. M., Ihnatiuk, A. I., & Kraus, N. M. (2023). Veteran entrepreneurship and business in Ukraine: Institutional, financial, and project components of practical implementation. *European Scientific*

- Journal of Economic and Financial Innovation, 1(11), 98-111. <https://doi.org/10.32750/2023-0108>
7. Loughran, D. S. (2014). Why is veteran unemployment so high? RAND Corporation. https://www.rand.org/pubs/research_reports/RR284.html
8. Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej. (2023). Priority programme “Energia Plus”. NFOŚiGW. <https://www.gov.pl/web/nfosigw/energia-plus>
9. OECD. (2021). No net zero without SMEs: Exploring the key issues for greening SMEs and green entrepreneurship (OECD SME and Entrepreneurship Papers No. 30). OECD Publishing. <https://doi.org/10.1787/bab63915-en>
10. OECD. (2024). Financing SMEs and entrepreneurs 2024: An OECD scoreboard. OECD Publishing. <https://doi.org/10.1787/fa521246-en>
11. Petrukha, N. (2026a). Institutional architecture of the green transformation of agricultural enterprises in the context of the transition to the bioeconomy. *Economic Analysis*, 36(1), 362. <https://doi.org/10.35774/econa2026.01.362>
12. Petrukha, N. (2026b). Investment support reconfiguration and resilience formation of agri-enterprises within the bioeconomic paradigm of the new security reality: Methodology, diagnostics, modelling [Monograph]. *Akademperiodyka*. <https://doi.org/10.15407/akademperiodyka.583.430>
13. Petrukha, N., Oleksun, N., Petrukha, S., et al. (2026). Financial stability: From preservation to protection. *OIDA International Journal of Sustainable Development*. <https://doi.org/10.64211/oidaijsd190212>
14. Petrukha, N., Petrukha, S., & Konovalenko, D. (2026). Architecting the economic recovery management system in the new bioeconomic reality: Determinants and modern cluster solutions. In *Sustainable development and European integration*. Baltija Publishing. <https://doi.org/10.30525/978-9934-26-649-2-25>
15. Petrukha, N. M., & Petrukha, S. V. (2020). State regulation of integrated corporate associations under conditions of structural-institutional and functional transformation of the rural economy: Problems of methodology, theory, socio-economic and sectoral policy. *Profesional*.
16. Petrukha, S., Konovalenko, D., & Petrukha, N. (2026). Features of ensuring the stability of public finances during the war. *Baltic Journal of Economic Studies*, 12(1), 108-124. <https://doi.org/10.30525/2256-0742/2026-12-1-108-124>
17. Petrukha, S. V., Konovalenko, D. V., & Petrukha, N. M. (2024). Modernisation of public finances and resilience of veteran business. *Problems of Economy*, (3), 249-260. <https://doi.org/10.32983/2222-0712-2024-3-249-260>
18. Petrukha, S., Petrukha, N., Konovalenko, D., Miakota, R., & Gubanov, V. (2025). Ukrainian state budget as a result of military actions in the Russian-Ukrainian war. *International Research Journal of Multidisciplinary Scope*, 6(3), 550-568. <https://doi.org/10.47857/irjms.2025.v06i03.04776>
19. On Veteran Entrepreneurship, Law of Ukraine No. 4563-IX. (2025). <https://zakon.rada.gov.ua/laws/show/4563-20>
20. Sokolenko, L., Petrukha, N., Petrukha, S., et al. (2026). Social and environmental trends in ESG financing: New challenges for optimizing the value of capital of companies. *European Journal of Sustainable Development Research*, 10(3), em0402. <https://doi.org/10.29333/ejosdr/18523>
21. Stender, S., Petrukha, N., Huz, M., et al. (2026). Integration of artificial intelligence technologies into financial risk forecasting in the agricultural sector. *Periodicals of Engineering and Natural Sciences*, 14(1), 57-66. <https://doi.org/10.21533/pen.v14.i1.1528>
22. Tilikina, N. V., & Piesha, I. V. (2023). Ukraine’s state veteran policy and ways to ensure its effectiveness. *Public Administration and National Security*, (5). <https://www.inter-nauka.com/issues/administration2023/5/8984>
23. Tröndle, T., Melnyk, O., Tutova, O., Porieva, V., Neumann, F., Staffell, I., & Patt, A. (2024). Rebuilding Ukraine’s energy supply in a secure, economic, and decarbonised way. *Environmental Research: Infrastructure and Sustainability*, 4, 031002. <https://doi.org/10.1088/2634-4505/ad6738>
24. U.S. Small Business Administration, Office of Advocacy. (2024). Veteran ownership statistics 2024. SBA. <https://advocacy.sba.gov/2024/11/12/facts-about-small-business-veteran-ownership-statistics-2024/>
25. World Bank, Government of Ukraine, European Commission, & United Nations. (2025). Ukraine: Fourth rapid damage and needs assessment (RDNA4), February 2022 - December 2024. World Bank. <https://openknowledge.worldbank.org/entities/publication/0f04dfe0-41ea-410f-bdd9-4d2bc9d40569>
26. World Bank, Government of Ukraine, European Commission, & United Nations. (2026). Ukraine: Fifth rapid damage and needs assessment (RDNA5), February 2022 - December 2025. World Bank. <https://documents1.worldbank.org/curated/en/099022026094036395/pdf/P514499-22f93f3a-4278-42bc-b907-db9553d12069.pdf>