



# The Role of the State Management Institutions in the Reduction of the Macro-Economic Risks for Sustainable Development

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## Abstract

The goal of this paper is to systematise the main directions of the influence of institutions of state management on macro-economic risks for sustainable development. The research is based on the use of complex analysis, comparative method and structural approach.

We analyse the existing approaches to the categorisation of the types of effects of the system of public authorities of different levels on the reduction of risks in the sphere of sustainable development. We prove that though the established directions of the influence are peculiar for countries that have high indicators of effectiveness in the context of state management, their main aspects are adapted under the conditions of functioning of all countries that focus on implementing the sustainable development concept. The presented characteristics and types of influence can change depending on transformations of the programme foundations of this concept, given the development of innovative approaches in the sphere of the studied risks management.

The novel aspect of the research is due to the development of a theoretical framework of classification of the categories of influence of public authorities' institutions on the reduction of consequences from sustainable development risks.

## Keywords

Macro-economic risks · Sustainable development · Institutions of state management · Centralised influence · Decentralised influence

## JEL Codes

O11 · O44 · Q01 · Q56 · Q57 · Q58

## 1 Introduction

Critical periods of society's development are always accompanied by changes in socio-economic and demographic processes, which causes the necessity to reconsider the traditional views of the organisation of the environment and development of new principles and methods of managing the formation of a new paradigm of society's development of society. There have been many critical periods of transformation of all spheres of life activities in the history of humanity, which led to an acceleration of the search for optimal solutions and strategies, as well as the process of society's development. The modern state of development of countries and the global community could be called critical, due to the large difference between the economic, environmental and social components. The global community paid attention to the crisis state of the planet in the late 1960s. Before this, sustainable development was associated only with the economic rise. The orientation toward the balance between economy, ecologisation and environmentalism formed at the global level within the concept of sustainable development during a significant aggravation of these components of society's life, in the period of realisation of the necessity to set priorities in the spheres that are related not only to the growth of capitals. At the modern stage, many countries that adopted and supported the UN Sustainable Development

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Goals, continue dealing with problems (risks) that hinder the stability and balance of the three foundations of this process.

The state is responsible for the adoption and declaration of the strategic goals of sustainable development and development of the directions of the fight against macro-economic risks in this sphere; the state implements this through the corresponding system of the institutions of state management. The study of the influence of these subjects on the reduction of the given risks on the formation of the components of national sustainable development requires a complex approach and determining the corresponding key directions.

This paper is aimed at the systematisation of the main directions of the influence of institutions of state management on macro-economic risks for sustainable development. The tasks sought in this paper are as follows: determining the key scientific approaches regarding the influence of state management institutions on macro-economic risks of sustainable development; systematising the directions of the influence of the assessed institutions on the reduction of the influence of these risks.

## 2 Materials and Methods

Sustainable development risks, the role of state and its institutions in preventing or reducing the influence of the risks are studied in Alshehhi et al. (2021), Annukka et al. (2019), Boess et al. (2021), Bornemann and Christen (2019), Christofzik et al. (2022), Geyley et al. (2018), Krantz and Gustafsson (2021), Kuhlmann et al. (2021), Lüth and Schaffer (2022), Meschede (2019), Rääköläinen and Saxén (2022), and Salo et al. (2022).

The scientific works elaborate on isolated macro-economic risks in this direction and the risks that are peculiar for national economies, with their specifics. According to these problematic aspects, the activities of state institutions in reducing the risks' influence are analysed.

In this research, we consider the issues of establishment of the structure of state institutions and their common functions based on the method of complex analysis. The comparative method is used to identify countries that demonstrate high effectiveness in the activities of these institutions. The structural method is used to assess the effect of the system of bodies of state management of the studied countries on the reduction of the macro-economic risks for sustainable development.

We analyse the experience of the lead countries in the sphere of effective state management and build their list based on the analysis of the materials of their ranking, presented in the context of evaluation of global competitiveness (IMD, 2022). We analyse countries that are leaders in the sphere of effective state management: Switzerland, Germany and Finland.

The main materials that are analysed here are scientific works and analytical data on the issues of participation of state management institutions in preventing and reducing the negative influence of macro-economic risks for sustainable development.

## 3 Results

There exists a scientific approach that identifies the characteristics of the influence on the main spheres of national sustainable development (social, economic and environmental) in the context of the orientation toward a decentralised development of the key parameters of minimisation of macro-economic risks for sustainable development within territories (decentralised approach). In the context of this approach, it is supposed that the programme framework of sustainable development within the main components and the indicators of reduction of risks in this direction are developed by territorial bodies of public authorities. Programmes are adopted at the level of central authorities, and then they are discussed, corrected and adapted according to the programme framework of the country's sustainable development. Mechanisms and tools for implementing these programmes, with their potential diversity, are equal, similar to the parameters of the sustainable development components (social standards, environmental norms, currency exchange rates, credit interest rate, etc.).

Within the provisions of this approach, we shall consider the directions of influence of state management institutions of Switzerland on the minimisation of macro-economic risks for sustainable development, which are presented in Bornemann and Christen (2019). The authors do not distinguish the directions of influence of this category, but analysis of the materials of the empirical research on the role of public authorities bodies of different levels in the achievement of the Sustainable Development Goals allows identifying the following types of influence:

1. Territorial: risks for the achievement of the main indicators of the SDGs (innovative development of infrastructure, expenditures for the social sector, expenditures for ecologisation) at the level of cantons (administrative territories) and ways to reduce them through the use of tax preferences, subsidies (for economy); social standards for population, given the specifics of the territories; expenditures for ecologisation;
2. Federal: formation of state measures on the regulation of risks in the social (social standards at the federal level), economic (measures of regulation of price and exchange rate risks, risks of inflation (Alshehhi et al., 2021), environmental sphere (adoption and reformation of the environmental laws (mainly on CO<sub>2</sub> emissions)), given the

declared influence on their regulation in cantons. The impact on certain risks for sustainable development is connected with large problems. Namely, the adoption of environmental laws was accompanied by discussions and a national referendum in the last decade (Lüth & Schaffer, 2022). During a 2021 referendum, there were raised issues on the ban on subsidies for farms that use certain types of pesticides and on imposition of a tax for air flights for passengers (EUR 110); these initiatives were not supported, and, accordingly, no initiatives were implemented in the sphere of ecologisation at the federal level from the Ministry of the Environment, Transport, Energetics and Communication.

There is an approach based on the equal adoption of the concept of sustainable development and reduction of risks within state management at the central and territorial levels. This approach implies that countries have a decentralised system of management and take into account territorial and national interests.

In the context of this approach, it is worth mentioning the positions given in Kuhlmann et al. (2021), which envisage the directions of the influence of institutions of state management of different levels on the risks of sustainable development (Fig. 1): strategic determination of the minimisation of risks at the level of central federal authorities, connected with the designation of the main elements and tasks; identification of the risks and ways to reduce them within local authorities; formation, implementation and control over the realisation of state measures in the sphere of operative regulation of these risks with a focus on the programme aspects and planned measures.

The scheme of the management of the macro-economic risks of sustainable development at the level of public authorities of Germany is presented in Fig. 1.

The study of the scientific and analytical data allows stating that an important feature of the German management of sustainable development is the orientation toward resolution of problems and minimisation of risks at present, without creating additional difficulties for future generations.

Another approach is based on the centralised effect on the implementation of goals and minimisation of sustainable development risks, performed at the level of central authorities in the context of achievement of small tasks (programmes and projects). The use of this approach implies the management based on the “small wins” concept and the orientation toward the implementation of the large-scale goals in the long term.

In the context of this approach, it is possible to consider the list of characteristics of the influence of public authorities on the reduction of risks based on the experience of Finland (Annukka et al., 2019; Rökköläinen & Saxén, 2022; Salo

et al., 2022). Based on the analysis of these scientific materials, we revealed that the key directions for the given effect are as follows:

- Strategic management of sustainable development within the main spheres, which list has been formulated within the approach of the UN members (achievement of stable employment, provision of the prospects for well-being, sustainable development of society, population’s equal access to participation in public development and rational attitude toward nature and resources), and identification of risks of the macro-economic character in this direction (programme strategic provision of protection from risks);
- Management of identification of risks in all spheres of sustainable development, based on the gathering of data on local needs, development of the ways to implement them and realisation of projects and programmes in this direction. General regulation of this direction is performed by the prime minister, who is the head of the Finnish National Committee on Sustainable Development; ministers, who are members of the coordination network and have responsibilities for the adoption of directions (problems) that require interference, adoption of projects (programmes) on the given tasks and their management at the highest level; coordination groups, councils, unions and research organisations, which gather operative information on possible risks (problems), develop programmes and projects and implement them after they are approved by ministers.

The approach used by the Finnish government is a centralised network local approach in the management of the minimisation of the macro-economic risks for sustainable development.

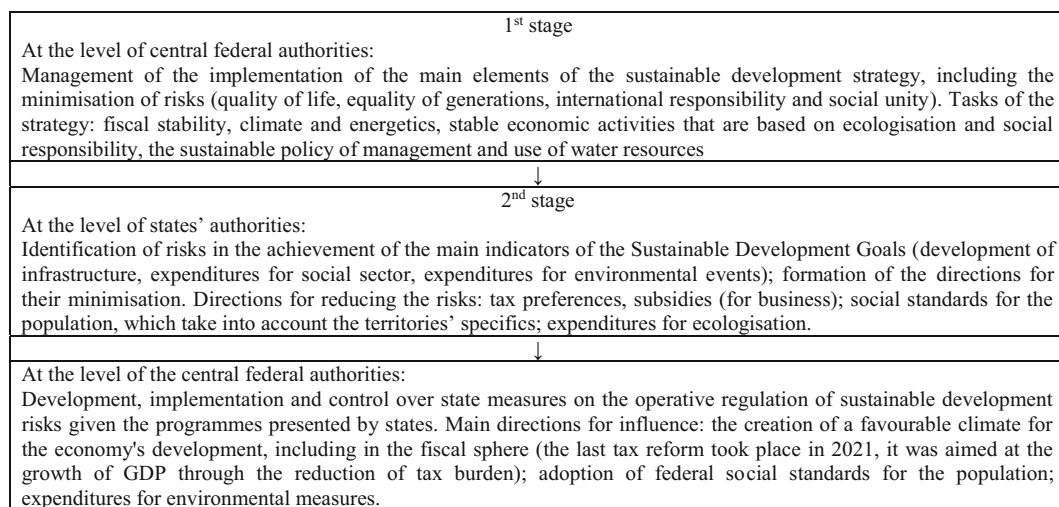
The analysis of the scientific materials (Boess et al., 2021; Krantz & Gustafsson, 2021) shows that Denmark and Sweden use an approach to the management of minimisation of macro-economic risks that is similar to the Finnish one. Denmark’s specific feature is the existence of sectoral local management of this category of risks.

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## 4 Discussion

Analysis of the above scientific approaches allows identifying the key categories of the influence of state institutions on the minimisation of macro-economic risks for sustainable development, which include:

1. Decentralised influence, which is connected with the focus on priorities of territories in the development of the main parameters and measures of reducing the given risks. The



**Fig. 1** The scheme of managing the macro-economic risks for sustainable development at the level of German public authorities. Source: Compiled by the authors based on Christofzik et al. (2022), Geyler et al. (2018), Kuhlmann et al. (2021), and Meschede (2019)

- use of such type of influence is peculiar for countries with a high level of decentralisation of state management (Switzerland);
2. Equal influence on the minimisation of risks within public authorities of the central and territorial levels (experience of Germany);
  3. Centralised local influence on the prevention, reduction and reduction of the level of risks of this type (within this type of influence, there are network forms of state management in this sphere and sectoral local directions) (Finland, Sweden and Denmark).

The presented types of influence are peculiar for countries with a high level of effectiveness of state management. It could be noted that the orientation toward such types (models) of influence are adapted, in a certain form, in developing and developed countries. The success of implementing these models in Switzerland, Germany, Finland, Denmark and Sweden is due to the long practice of management of sustainable development goals and risks.

## 5 Conclusion

It is possible to state that state management institutions have a decisive role in the minimisation of the consequences of the impact of the studied risks. In some countries, the institutional structure of influence has a clear centralised character, which, in its turn, predetermines the unity of goals and tasks within the achievement of the sustainable development indicators and the prevention of emergence or increase in the effect of risks. In the case of centralised influence, the activities of public authorities, though implying the interaction with territorial administration, are based on the national

interests of the country (adoption of the common environmental law, tax reform, social benefits). In the case of decentralised influence, the interests and specifics of the sustainable development of territories are taken into account; the functioning of central public authorities is built based on close and equal cooperation with local authorities. In the context of the orientation of state management institutions on the centralised local network approach within the network interaction with all levels of authorities, institutional structures implement certain tasks and programmes in the sphere of sustainable development, including the projects of protection from risks.

## References

- Alshehhi, N., Nobanee, H., & Hmimi, N. (2021). *An overview of the Swiss National Bank*. Accessed June 18, 2022, from [https://www.researchgate.net/publication/342703574\\_An\\_overview\\_of\\_the\\_Swiss\\_National\\_Bank](https://www.researchgate.net/publication/342703574_An_overview_of_the_Swiss_National_Bank)
- Annukka, B., Lähteenoja, S., Ylönen, M., Korhonen, K., Linko, T., Kirsi-Marja, L., Lyytimäki, J., Salmivaara, A., Salo, H., Schönach, P., & Suutarinen, I. (2019). *An evaluation of Finland's sustainable development policy* (p. 1). Publications of the Government's analysis, assessment and research activities. Accessed June 18, 2022, from [https://www.researchgate.net/publication/336346192\\_PATH2030\\_-\\_An\\_Evaluation\\_of\\_Finland's\\_Sustainable\\_Development\\_Policy](https://www.researchgate.net/publication/336346192_PATH2030_-_An_Evaluation_of_Finland's_Sustainable_Development_Policy)
- Boess, E. R., Lyhne, I., Gallego Davila, J., Jantzen, E., Kjellerup, U., & Kørnøv, L. (2021). Using sustainable development goals to develop EIA scoping practices: The case of Denmark. *Impact Assessment and Project Appraisal*, 39(6), 463–477.
- Bornemann, B., & Christen, M. (2019). Sustainability governance in public administration: Interpreting practical governance arrangements in Swiss cantons. *Environmental Policy and Governance*, 29, 159–169.
- Christofzik, D. I., Fuest, A., & Jessen, R. (2022). Macroeconomic effects of the anticipation and implementation of tax changes in Germany: Evidence from a narrative account. *Economica*, 89, 62–81.

- Geyler, S., Kerber, H., Lux, A., Hedrich, M., Beck, J., Möller, K., Selvakumar, G., Eller, M., Tocha, C., & Sonnenburg, A. (2018). Ensuring sustainable development for the German water sector: Setting the stage for the risk-based sustainability management system (RSS). *Urban Water Journal*, 15(6), 518–525.
- IMD. (2022). *World competitiveness ranking 2022 results*. Accessed June 18, 2022, from <https://www.imd.org/centers/world-competitiveness-center/rankings/world-competitiveness/>
- Krantz, V., & Gustafsson, S. (2021). Localizing the sustainable development goals through an integrated approach in municipalities: Early experiences from a Swedish forerunner. *Journal of Environmental Planning and Management*, 64(14), 2641–2660.
- Kuhlmann, S., Proeller, I., Schimanke, D., & Ziekow, J. (2021). *Public administration in Germany* (p. 415). University of Birmingham.
- Lüth, M., & Schaffer, L. M. (2022). The electoral importance and evolution of climate related energy policy: Evidence from Switzerland. *Swiss Political Science Review*, 00, 1–21.
- Meschede, C. (2019). Information dissemination related to the sustainable development goals on German local governmental websites. *Aslib Journal of Information Management*, 71(3), 440–455.
- Räkköläinen, M., & Saxén, A. (2022). Pathway to the transformative policy of agenda 2030: Evaluation of Finland's sustainable development policy. In *Transformational change for people and the planet. Sustainable development goals series* (pp. 237–249). Springer.
- Salo, H. H., Berg, A., Korhonen-Kurki, K., & Lähteenoja, S. (2022). Small wins enhancing sustainability transformations: Sustainable development policy in Finland. *Environmental Science & Policy*, 128, 242–255.