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# Integrated assessment framework as a tool for identifying the type of state aid

### Bartosz BARTNICZK Wrocław University of Economics, Poland

Abstract: Implementing the concept of sustainable development is one of the major challenges facing the modern world. One of the instruments creating sustainable development might be state aid. State aid has an impact not only on the economic sphere but also the environmental and social sphere. State aid can have beneficial, harmful or neutral impact on the implementation of sustainable development. In reality, the design of aid programs does not assess its impact on sustainable development. Judgments are only a measure of the impact on competition, which does not necessarily support sustainable development. The main objective of the article is to present an integrated assessment framework as a tool for identifying beneficial state aid from the point of view of sustainable development. The characteristics of this tool will be presented. Furthermore, a practical tool for assessing the state aid granted in Poland on the basis of selected assistance programs will be discussed, and the directions of change needed for improving this tool to improve the assessment of impact of the granted aid will be elaborated.

Keywords: state aid, sustainable development, harmful state aid, neutral state aid, beneficial state aid

### 1. Introduction

State aid is defined by the European Commission as a form of support from a public body given to entrepreneurs on a selective basis. Such aid can potentially distort competition and affect trade between member states of the European Union (Nykiel-Mateo, 2009: 6).

State aid affects each of the spheres of sustainable development (economic, environmental and social) which in theory should create an integrated order. State aid mostly tends to affect the economic sphere. Environmental objective are aimed at when aid concerns programs in the area of environmental protection. Such aid may cause economic side effects. While social issues are a

*Correspondence Address:* Bartosz Bartniczak, Wrocław University of Economics, Faculty of Economics, Management and Tourism in Jelenia Góra, Department of Quality and Environment Management, ul. Nowowiejska 3, 58-500 Jelenia Góra. E-mail: Bartosz.Bartniczak@ue.wroc.pl

goal in itself, they seem often to be dealt with on the occasion of dealing with the main objectives of economic and environmental development. Examples of the impact of aid for each of the areas are presented in Figure 1.

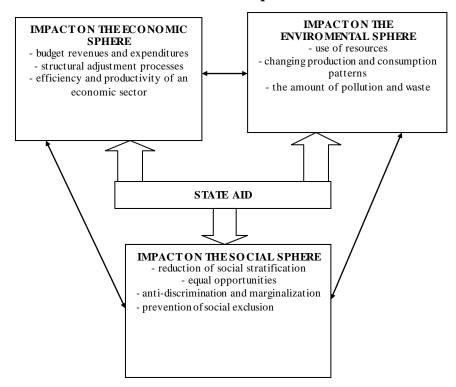


Figure 1. State aid in context of sustainable development

Source: Bartniczak, 2011: 9; Berg, 2007: 38.

Impact on the economic sphere is mainly attributable to the specificity of state aid, providing entrepreneurs support with grants or preferential credits (so-called active support). Another form is not collecting from certain entrepreneurs commitments to the state such redemption or repayment in installments of tax payments or the provision of various tax concessions (known as passive support). This may have a significant impact on the economic sphere by increasing or decreasing the budget revenue. State aid may be directed to the so-called sensitive sectors, or support specific purposes (employment, training, R&D) which affects the process of structural adjustment. The funds that will go to a sector or group of enterprises can improve their competitiveness in the market. Therefore, an important issue is to assess the impact of state aid on competition. Despite attempts to reduce the adverse impact on market competition, state aid may help to increase efficiency and productivity of a sector when supporting

technological development and organizational change. Impact on the environmental sphere is in most cases indirect. When the granting of state aid results in an increase in the production capacity, employment growth, and increased research and development activities, this may lead to increased use of environmental resources. Particular dangers arise when non-renewable resources are used. Support received by the entrepreneurs may lead to increased production, which translates into growth and employment, and may contribute to increased consumption. This in turn may adversely affect the environmental sphere, in particular water resources, mineral extraction, land and soil resources and air quality. Increased production and consumption may consequently lead to increased pollution and the amount of waste produced. State aid, despite the fact that its main purpose is to influence the economic sphere is also likely to have an indirect impact on the social sphere. This impact may be positive when economic activity leads to an increase in employment and in turn contributes to a reduction in social stratification. Support for employment is mainly directed to people who are excluded from the labor market - people with disabilities or long-term unemployed. State aid may be directed to entrepreneurs employing more of such unemployed people. In this case, state aid is an instrument counteracting social exclusion.

The effect of a state aid measure for each of the three spheres varies, depending on the mode used and the purpose of the state aid program. It should be emphasized that, under the concept of integrated order, the economic, environmental and social spheres are interrelated, meaning that state aid will affect each of these spheres, although with different strength. For example, state aid programs aimed at reducing long-term unemployment in the form of grants to create jobs has an economic impact due to increased budget spending, while increased employment may reduce expenditures on social benefits and increase tax income when jobs are created. Besides the direct social effect, job creation, also indirect positive effects in the social sphere may be achieved such as counteraction of social exclusion, discrimination and marginalization. The increased income of the former unemployed people may lead to increased consumption, which in turn may lead to increased amounts of waste and pollution.

The main objective of this article is to determine the nature of state aid in terms of its impact on the implementation of the concept of sustainable development. The author will present some general ideas for the development of a tool, based on the OECD's integrated assessment framework, through which it may be possible to identify the type of state aid as beneficial, harmful or neutral from the point of view of the impact on from sustainable development. The use of the integrated assessment framework in practice will be discussed on the example of Polish schemes providing employment aid for people with disability. While the author is aware of complex interactions between social, environmental and economic elements of sustainable development, as well as different trade-offs between different elements, there is a need to develop such a tool as otherwise many important impacts of policy may be neglected.

### 2. The concept of the integrated assessment framework

The OECD has developed three tools for the identification and assessment of environmentally harmful subsidies: the "quick scan", the "checklist" and the "integrated assessment framework"(Valsecchi et al., 2009: 22). While the last tool is aimed at assessing environmental impacts, it may be adapted for assessing economic, social and environmental impacts. Including the economic and social element makes it possible to identify subsidies that can be called "harmful to sustainable development," which is a starting point for further considerations. The first need for modification arises from the fact that a subsidy cannot be equated with state aid (Bartniczak, 2011: 10), while sustainable development is more complex than environmental impact. It is therefore necessary to develop such a tool, which allows for the identification of state aid in terms of its impact on sustainable development. The steps to be taken to create a modified integrated assessment framework are shown in Table 1.

The main aim of the first stage of the analysis is to obtain general information on the state aid program. The purpose for which the program was created and who is primarily served should be indicated. A crucial element is the identification of social, environmental and economic goals. This may be based on existing policy documents. However, it may be difficult to establish clear priorities and clear weights, as economic policy, social policy and environmental policy are usually carried out by different ministries or department, and reflected in different documents. Useful in this context may be the further elaboration of indicators of sustainable development (Borys, 2005). The second stage allows for the identification of the impact, but also the side effects or externalities. This allows for identification the real impact of the measure compared to the objective of the program. In particular the externalities are important, as when an improvement, for example, environmental aims and social development in one country is achieved by relocation of environmentally damaging production to another country, the total impact on sustainable development may be negative. The third stage will allow for identification of long-term effectiveness. The state aid should trigger off effects which can be sustained after this aid has finished, as otherwise a permanent dependency would appear in order to continue the desired effect. This is important, as sustainable development is a long term challenge, where self-sustaining processes and maintenance of the resource base for future generations are fundamental. In the fourth stage, it is attempted to classify the state aid granted in terms of its impact on sustainable development. This will allow the assessment of the value of each type of aid. After a critical assessment of the impact of the state aid, the final stage concerns the eventual reform of the state aid system in order to make its impact more in accordance with principles of sustainable development.

Table 1	. Modified	integrated	assessment framework.
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Step 1. General characteristics					
1.	Has the time range of validity of the state aid measure been specified ?				
2.	Has the budget been determined?				
3.	What instruments will be used?				
4.	Who will be the beneficent?				
5.	What are the objectives of the state aid with respect to its environmental, economic and social impact? Can these objectives be directly identified?				
6.	What are the economic, social and environmental goals of sustainable development which can be achieved with this support?				
Step 2. External effects					
1.	Which incidental impacts in relation to the economic, social and environmental sphere may				
	arise in connection with the implementation the program?				
2.	Are there trans-boundary (international) incidental impacts?				
Step 3. Long-term effectiveness					
1.	What is the impact of the aid measure (after the period of aid has finished) in the economic,				
	social and environmental sphere?				
Step 4. Type of state aid					
1.	Is the impact of the state aid beneficial, harmful or neutral?				
Step 5. Reform					
1.	Whether and how to reform state aid measure to make it more sustainable?				
Source:	Source: author's own elaboration based on Barg, 2007: 38.				

### **3.** Practical application of the integrated assessment framework

Practical use of the integrated assessment framework will be discussed on the example of Polish schemes providing employment aid for people with a disability - X306/2009 Aid for the employment of disabled workers in the form of wage subsidies (European Commission, 2010). This program is one of the three largest schemes in the European Union in the area of support for the employment of disabled people.

## Figure 2. Linking the objectives of the schemes X 306/2009 with sustainable development principles defined in the Johannesburg Declaration.

economic objective		social objective			environemental objective				
Indirect objective - improve the		Direct objective - increase			no objective				
economic situation of enterprises		employment of people			-				
employing disabled people		with disabilities							
principles of sustainable development									
Johannesburg Declaration on Sustainable Development									
principle of global society princi		ole of good	principle of poverty		principle to combat unemployment				
		ractise	eradication						
commitment to building a	exposes the need to		exposes the need		requiring states to provide all				
humane, equitable and caring	combat poverty,		for stronger efforts		necessary needs to allow job				
global society, cognizant of the	environmental		to develop a		growth, which should be income				
		dation and	practical and		generating				
	U	terns of	visible plan		0 0				
	unsu	stainable	bring about p						
	deve	elopment	eradication and						
		*	human						
			developm	ent					

Schemes X 306/2009 - Aid for the employment of disabled workers in the form of wage subsidies

Source: own elaboration based on UNCTAD:2012, Skowrońska, 2009: 39.

Analysis of this program will be carried out according to the five stages presented in Section 2. The first stage covers the general characteristics of the program. The program has a clearly defined implementation period. Its duration is specified for the period 9 January 2009 to 31 December 2013. The program's budget was set on PLN 2.8 billion. The aid instrument used is a grant. Beneficiaries will be both Small and Medium-sized Enterprises as well as large enterprises. Analysing the aid program (Rozporządzenie, 2009) the main objective can be easily identified. This goal is social and can be defined as an increase in employment of people with disabilities. This aim is to be achieved through co-financing of salary employees with disabilities.

While the social purpose is clearly defined, it appears problematic to determine the economic and environmental aims. While the economic objective is very difficult to define, an indirect aim of this program may be to improve the economic situation of enterprises employing disabled people. The environmental objective of the program cannot be identified. The identified social and economic goals should be linked with principles of sustainable development. The author uses for analytical purposes the principles of sustainable development set out in Johannesburg Declaration on Sustainable Development (UNCTAD: 2012) (Figure 2).

In the second stage the external effects of this program for each of the spheres should be identified and assessed. Implementation of this program has a negative impact on the economic sphere by increasing the state budget expenditures. State pays from its funds through the National Disabled Persons Rehabilitation Fund to partly cover wages of people with disabilities. In the short term, the effect is negative. However, such expenditure can be seen as a kind of investment, which may have positive effects in the long term. Labour market participation increases and human capital is developed, which is an important issue in the light of an ageing society. Increasing the number of people working, and reducing the number of unemployed people, will increase the revenues of personal income tax, as well as the value added tax from the purchase of goods and services that these individuals will acquire. The state will also spend less on social welfare to unemployed people with disabilities. The long-term beneficial effect may compensate for short-term increase in budget spending under the condition of limitation of the time of payment of refunds to employers. State aid for them should play the role of providing incentives to create jobs for the disabled people. After a specified time, the state should cease wage subsidies and jobs created should be maintained by business on its own. This is possible, when employers become aware that labour productivity of many disabled people is not necessarily lower that in the case of non-disabled people.

In the social sphere, implementing the program is supposed to cause an increase in employment of persons excluded from the labor market, i.e., people with disabilities. Persons with disabilities who receive the opportunity to work, may feel that they are needed and may begin to feel like "normal" citizens. This promotes increased self-esteem of these people, and can assist in their rehabilitation.

It is very difficult to assess the impact of the program on the environmental sphere. In this program, as outlined above, environmental objectives are not defined. However, the

implementation of this program may have some long term impacts on the environment. Increasing the number of employed people, and thus the income of these people, increases the funds available for consumption. An increase in consumption is related to an increase in leading to an increase in pollution and waste generated. Thus, the impact on the environmental sphere can be described as a negative. However, the value of the grants awarded in 2009 was on average 600 PLN. This is maybe 20% of the gross wage, so the net effect will be smaller. Although the marginal propensity to consume may be high for low income groups, the total number of disabled people in Poland may be too small in order to have a real impact on consumption, and as a consequence on the environmental sphere. Thus, the effect for the environment can be neutral when the grant and / or number of people using the program are too small. In 2009 over 233 thousand disabled people benefited from this program (pracujdlasiebie.pl).

The next step is to assess whether the implementation of the program affects only the national or international level. The analyzed program is realized on Polish territory, and as a consequence will directly impact on sustainability issues on Polish territory. The impacts on the international dimension are indirect, through the Polish entrepreneurs selling their products and services abroad. If they employ workers whose wages are subsidized, they can be more competitive in the market. In general, people with disabilities are assumed to be less productive employees (Barczyński, 2012), which means that the effective functioning of the companies benefiting from refunds will not be higher than of the entrepreneurs not employing people with disabilities supported by refunds. Officially, only the higher costs of employing people will be covered. It is therefore can be argued that the project only affects the Polish territory with the employment of disabled people. However, in reality it may be difficult to assess the labour productivity, so a competitive advantage may appear. However, the impact of course depends on the number of employees employed. Furthermore, when a similar programme is carried out in more countries, the effectiveness of the government in facilitating access to grants may cause a competitive advantage, and influence the state of public finance, which in turn affects the opportunities for general policy for sustainable development.

The third step is to examine long-term effectiveness. This analysis is partly carried out in the previous stage. The time limitation for the operation of the program should be beneficial in the long term to all three spheres. The realization of program causes some short-term harmful effects in the economic and environmental spheres. While the economic effects can be positive in the long-run, a question is whether negative environmental impacts of increased consumption can be dealt with. However, this is a more general problem related to the effects of growth of economic activity and consumption in general. Showing the benefits of employing people with disabilities may have as a consequence that employers also are willing to employ such persons, which may increase long-term social cohesion.

The fourth stage is the stage where the way of assessment of the impact of aid the granted on sustainable development is identified. The general analysis carried out in the previous stages allows for the statement that the state aid granted is generally favorable from the viewpoint of sustainable development. In other words, implementation of the program contributes sustainable development. However, although this general assessment may be true, the impact of economic activity on the environment depends, among other things, on the ability to decouple economic growth from overuse of environmental resources.

In the last stage of the analysis we should indicate what changes we need in order to improve the impact on sustainable development. One issue was already mentioned - the challenge to decouple economic growth from its negative environmental impact, which is a challenge in most of the social and economic policy programs. We should also look for answers to the question, whether there is any other more effective instrument which can achieve similar or better results at lower cost and in a shorter period of time. The program discussed has contributed to an increase in the demand for work people with disabilities. According to statistics, the number of jobs for disabled people increased in Poland from 1118 in 2008 to 1531 in 2009 and 2577 in 2010 2577 (Local Data Bank, 2012). While the aid is supposedly an important determinant of the increased demand, the sustainability is difficult to assess at the moment, as the program has not finished yet. A problem may be the change in attitude towards disabled people, as well as many other barriers existing in the labour market. Attitude and mentality change rather slowly, while infrastructural barriers observed by the authors will remain a long-term barrier. For example, it remains difficult for physically handicapped people to travel to work due to uneven pavements, difficulties to get into busses, trams and trains, to use stairs when entering a building. The author observed once the fact that the official responsible for disabled people in one city, being disabled himself, could not enter his own office without help as no elevators were available. Elevators were not allowed as it would disturb the internal architecture of the municipality building.

### 4. Concluding remarks

Full implementation of the concept of sustainable development requires a wide variety of instruments. Although state aid can be an instrument in implementation sustainable development, this is not always the case. A useful tool for assessment of the impact of state aid on sustainable development is the integrated assessment framework. The practical application of this instrument has shown that its effective use requires further modification. The modification should primarily lead to a situation where a wide range of criteria should be "measured." Ambiguous criteria should be avoided, as these criteria may in fact lead to subjective evaluation which causes high ambiguity of formulated ratings.

A crucial issue for the functioning of an integrated assessment framework concerns the principles of sustainable development. The identification of these principles may be based on existing policy and legal documents on a regional, national and transnational level (e.g., the European Union's Sustainable Development Strategy. It is therefore necessary to review them, identify the principles set out in these documents and group them according to the three spheres. This is likely to facilitate in the future linking objectives of the aid program with sustainable development principles. Furthermore, there may be a feedback between the assessment of state aid practice and change in legal and policy documents for sustainable development. However, a question remains whether the economic, social and environmental goals established in different documents are in accordance with principles of sustainable development. Thus, such a process of review of policy and legal documents may be a basis for a discussion of changing policy and create an integrated policy for sustainable development. Furthermore, a second study conducted in parallel should focus on analysis of reports on the granted state aid. The identification of the types of state aid contributing to the implementation of sustainable development would help to assess the value of such support, and create a basis for changing the type of state aid, when necessary.

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### Zintegrowane ramy oceny jako narzędzie identyfikujące rodzaje pomocy publicznej

### Streszczenie

Wdrażanie koncepcji zrównoważonego rozwoju jest jednym z głównych wyzwań stojących przed współczesnym światem. Jednym z instrumentów, który może przyczynić się do wdrażania zrównoważonego rozwoju jest pomoc publiczna. Pomoc publiczna wpływa nie tylko na sferę ekonomiczna ale także na środowiskową i społeczna. Pomoc publiczna może mieć szkodliwy, neutralny bądź korzystny wpływ na wdrażanie zrównoważonego rozwoju. Wpływ pomocy publicznej powinien być zatem analizowany z punktu widzenia wpływu na sferę ekonomiczna, społeczną i środowiskową. W związku z czym ważnym zagadnieniem jest ocena pomocy publicznej z punktu widzenia jej wpływu na zrównoważony rozwój. W momencie tworzenia programu pomocowego nie analizuje się jego wpływu na zrównoważony rozwój. Ocenie podlega tylko i wyłącznie wpływ na konkurencję. Ocena z punktu widzenia wpływu na zrównoważony rozwój powinna być jednak dokonana, ponieważ może się okazać, że realizacja tego program stoi w sprzeczności z zasadami zrównoważonego rozwoju.

Głównym celem artykułu jest przedstawienie zintegrowanych ram oceny jako narzędzia, które może być wykorzystywane do oceny rodzaju pomocy publicznej z punktu widzenia jej wpływu na zrównoważony rozwój.

W artykule zaprezentowano charakterystykę tego narzędzia, pokazano praktyczne jego wykorzystanie na podstawie analizy programu pomocowego. W artykule wskazano także, jakie prace powinny zostać przeprowadzone, aby udoskonalić to narzędzie.

Słowa kluczowe: pomoc publiczna, zrównoważony rozwój, korzystna pomoc publiczna, szkodliwa pomoc publiczna, neutralna pomoc publiczna