

DECOUPLING EFFECT AS A PART OF THE ECO-FRIENDLY DEVELOPMENT OF KYIV CITY

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Global economic city growth is accompanied by unbalanced exploitation of the environment, which increases a risk of dangerous environmental situations not only for the city, but also for the surrounding area. For countries, oriented towards sustainable economic growth, environmental conservation is a main purpose, since the achievement of eco-friendly development is identical to the increase of life quality by the decrease of environmental pressures. Therefore, the question on the difference between the economic growth and the decrease of pressure on the environment that was called "decoupling" has recently got particular attention. "Decoupling" represents the ability of the country economy to the economic power growth that is not accompanied by increased pressure on the environment.

The value of decoupling effect is calculated as an indicator of division as follows:

$$F = 1 - \left(\frac{EP_e}{EP_b} : \frac{DF_e}{DF_b} \right)$$

where DF - an indicator of economic growth, which is taken through macroeconomic indicators, EP - an impact on the environment which is an environmental hazard, e - this year, b - base year.

Since there are many indicators of environmental burden, it is reasonable to single out the main ones for corresponding calculations. Taking into account the indicators directly connected with manufacturing and consuming, one should determine such indicators as the amount of discharge of polluted substances into air, the amount of discharge of sewage and the amount of waste products of the 1-3 danger classes.

The compiled information on the parameters and the corresponding results can be grouped in the table shown below (Table 1). The graph of the decoupling-index dynamics is shown in Fig.1.

The analysis of the results of the decoupling-index has shown the growth of the economic component and to some extent, reduce of the burden on the environment. However, the graph curve shows that a well-established tendency is too soon to speak about, especially in 2010.

It should be noted that the main role in constructing the curve of the decoupling-index plays statistics, and it is important for them to be comparable and for methods for collecting and processing statistical information to be unchanged.

Table 1 – Compiled information on the parameters

Year	2005	2006	2007	2008	2009	2010	2011
GRP, m UAH	77124	95267	135900	169564	169537	196639	205094
Emissions of harmful substances in the air, total, thousand tons	220,5	227,1	230,5	275,2	277,9	265,3	254,5
Drained return water, m m ³	899,7	817,3	723,1	715,0	657,5	649,5	614,5
Formed hazardous waste, thousand tons	7369,3	8933,7	13451,1	10880,9	5358,7	14016,9	11208,5
Decoupling-index according to emissions of harmful substances in the air	-	0,17	0,29	0,04	-0,01	0,18	0,08
Decoupling-index according to drained return water	-	0,26	0,38	0,21	0,08	0,15	0,09
Decoupling-index according to formed hazardous waste	-	0,02	-0,06	0,35	0,51	-1,26	0,23
Integral decoupling-index	-	0,15	0,20	0,20	0,19	-0,31	0,14

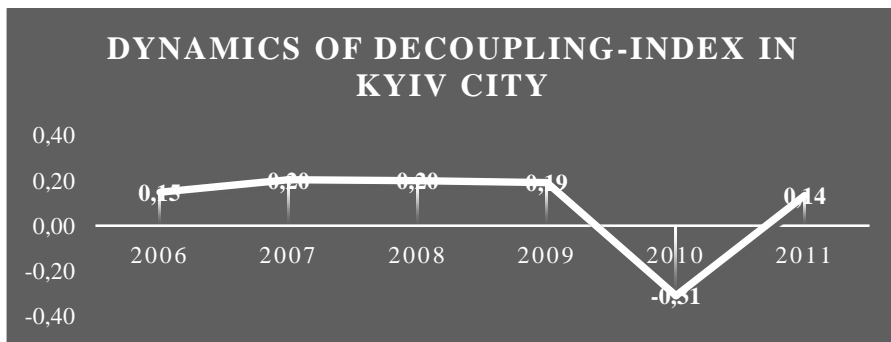


Figure 1. Dynamic of decoupling-index in Kyiv city from 2006 to 2011 years

Економіка для екології: матеріали XIX Міжнародної наукової конференції, м. Суми, 30 квітня – 3 травня 2013 р. / редкол.: Д. О. Смоленніков, М. С. Шкурат. – Суми : Сумський державний університет, 2013. – С. 23-25.