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FROM SECTORS TO REGIONS – ASSESSMENT OF COMPETITIVENESS SUPPORT OF FIRMS FROM STRUCTURAL FUNDS

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Abstract
There has been much discussion on how regional policy should be set. Some theories and experience speak for a policy based on the specific characteristics of regions, in some countries; however, it is recognized by the sector-based approaches. The present article aims to assess the European Union support in terms of differences in the adjustment of aid in sectors in different regions. We assume that regional policy should support those sectors in regions that are competitive. This means across the board should not only be supported selected sectors but the policy must respect specific situation of sectors in various regions. Empirical analysis is based on evaluation of support in two selected countries of Central and Eastern Europe - the Czech Republic and Slovakia. Specifically, the paper provides an analysis of competitiveness support of companies and distribution of this aid by sectors and regions. Conclusions of empirical research indicate significant differences in sectoral and territorial distribution of aid, despite the fact that there are two neighbouring countries with similar support setting and with common history, which joined the European Union at the same time.

Keywords
Regional policy, Structural Funds, Innovation support, Industrial policy

JEL classification
H50, R58, O25, O38

1 Introduction

Support of competitiveness is among the traditional instruments of economic policy. There are a lot of ways how this support can be implemented, both through the national and regional level (Smith, 2000; Jaumotte and Pain, 2005; Šipikal, et al., 2010). One of the most common ways (but also one of most controversial), are schemes aimed at supporting directly firms. Also in this case, there are different ways how to do it. Most typical are provision of finance, technology and training assistance. Almost all countries have schemes for stimulating and supporting private R&D or other technology development in SMEs (Batra and Mahood, 2003). However, the empirical evidence is quite mixed about their effectiveness and benefits. Any project selection is related to "picking the winners" and government abilities to do it properly (Storey, 1994; Almus and Czarnitzki, 2003). Specially, the government tend to support projects with high chances to succeed. Logically, these projects often do not need public support to be successful (Wallstein, 2000).

Moreover, In the EU countries that have a significant proportion of underdeveloped regions, a large part of such schemes implemented directly within the EU's cohesion policy. Given that cohesion policy has other goals than just promoting competitiveness, there may arise a classic dilemma of efficiency vs. equality of support policies. Support does not have to be directed where it will be most effective, but it also has to support the least developed regions. Similar situation could arise within supported regions where the support could go to the most developed of them (Klimová and Žítek, 2015).

To better understand the possible effects of policies, it is important to study empirical distribution of support. The aim of this article is to empirically analyze the distribution of measures used to promote competitiveness for private companies in two similar countries - the Czech Republic and

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Slovakia. We will explore how the problem of picking of winners could be seen at sectoral levels. We will also examine how these differences vary across supported regions.

2 The selection of sectors

Support from cohesion funds always deal with the dilemma of effectiveness and solidarity. One stream argues that development interventions should be space-neutral and factors simply encouraged moving to where they are most productive (Barca, McCann and Rodriquez Pose, 2012) other support the place based argument (Barca 2009). In practice, this dilemma often leads to the selection of regional or sectoral intervention schemes. Although cohesion policy funds are not earmarked to sectors, a large part of the resources ends up being allocated to sectoral programmes that lack place-based setting. This is particularly the case for the resources – about two thirds of the whole budget – which are managed by the central administrations (Barca, 2009). This is also the case of European supporting programmes in the Czech and Slovak Republic. Both analysed programmes are managed by central administrations. Moreover, the development of companies does not depend only on dynamic development of particular sectors, but is also influenced by regional specific context (Rehák, 2008).

Sectoral support tends to favour powerful regions and sectors as it might have been if integrated regional support were implemented. On the other hand, however, it allows influencing the support of strong sectors that have good lobby in government institutions. Problem of picking of winners deals also with question if to support the growing or declining sectors. In many cases, the states tend to support strong traditional industries which could face the "lock in" problem. Another problem is related to tendency to support the strongest sector to improve already existing technological advantage in the region. This could lead to selection of projects that do not require support.

3 Methodology and data

In order to obtain relevant comparison of policies in two neighbouring countries, we have chosen to analyse two similar measures of innovation support in Slovakia and the Czech Republic. We are working with all projects supported during the programming period 2007 – 2013 within selected measures. There were only projects of state assistance analysed, not schemes de minimis.

In Slovakia, an intervention of the Operational Programme Competitiveness and Economic Growth will be analysed, particularly the measure 1.1. Innovation and Technology Transfers, namely Sub-measure 1.1.1 Support for Introducing Innovation and Technology Transfer (state aid scheme to support the introduction of innovative and advanced technologies in industry and services). Six calls for grant applications for firms were analysed. The calls were announced in years 2008, 2009 and 2010, 2011 and 2012 (KaHR-111SP-0801, KaHR-111SP-0902, KaHR-111SP-1001, KaHR-111SP/LSKxP-1101, KaHR-111SP-1101).

In the Czech Republic, a measure under the Operational Programme Business and Innovation will be explored, particularly 4.1 Increasing the innovative performance of firms, the sub-measure "Innovation – Innovation Project". Within this measure were evaluated 4 calls for grant applications for firms in the Czech Republic. The calls were announced in years 2007, 2008, 2009 and 2010(Innovation – Innovation Project Call I, II, III and IV). The last call has been subsequently extended in years 2011 and 2013.

A database of approved projects was established that was filled by different characteristics (year of establishment, legal form, number of employees, etc.) from the Register of Financial Statements of the Ministry of Finance of the Slovak Republic, Orbis Database and the Statistical Offices of the Czech and Slovak Republic. The information about the aid amount and beneficiaries from the grant agencies were used (Czechinvest in the Czech Republic and Slovak Innovation and Energy Agency in Slovakia). In the analysis of two very similar measures of innovation support will be evaluated the total amount of support in the Czech Republic of 821 588 884.79 Euros and in Slovakia of 365 483

003,69 Euros that were approved during the programming period 2007 - 2013. Overall, in the Czech Republic approved in 1269 projects that represent 930 companies and in Slovakia 400 projects in 371 companies.

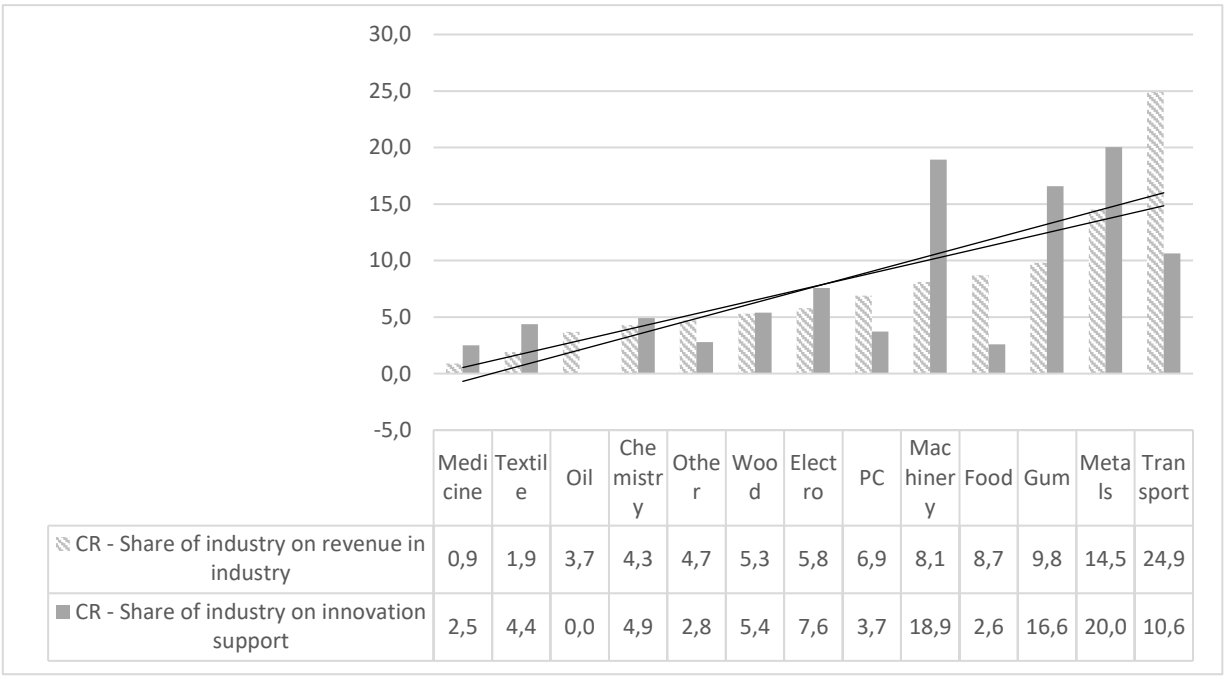
We need to stress that rules and selection procedures were very similar in both investigated countries. Both schemes were oriented on technology transfer to support innovation. Both had similar criteria for evaluation, based primarily on project quality. No regional specific criteria were applied.

The dataset containing all projects was evaluated in order to find the differences in support among different sectors and compared to the strengths of these sectors in both evaluated countries.

4 Sectoral distribution of aid

When we look at the overall distribution of aid by sectors, the Czech Republic supports roughly followed the sector size, while in Slovakia the differences were much more pronounced. More detailed results are shown in Figures 1 and 2.

In the Czech Republic dominates support of metals and machinery, that proportion is significantly higher than the actual proportion of the volume of production. On the other hand, compared to the size of output it is faltering Food processing sector and Manufacture of transport vehicles.

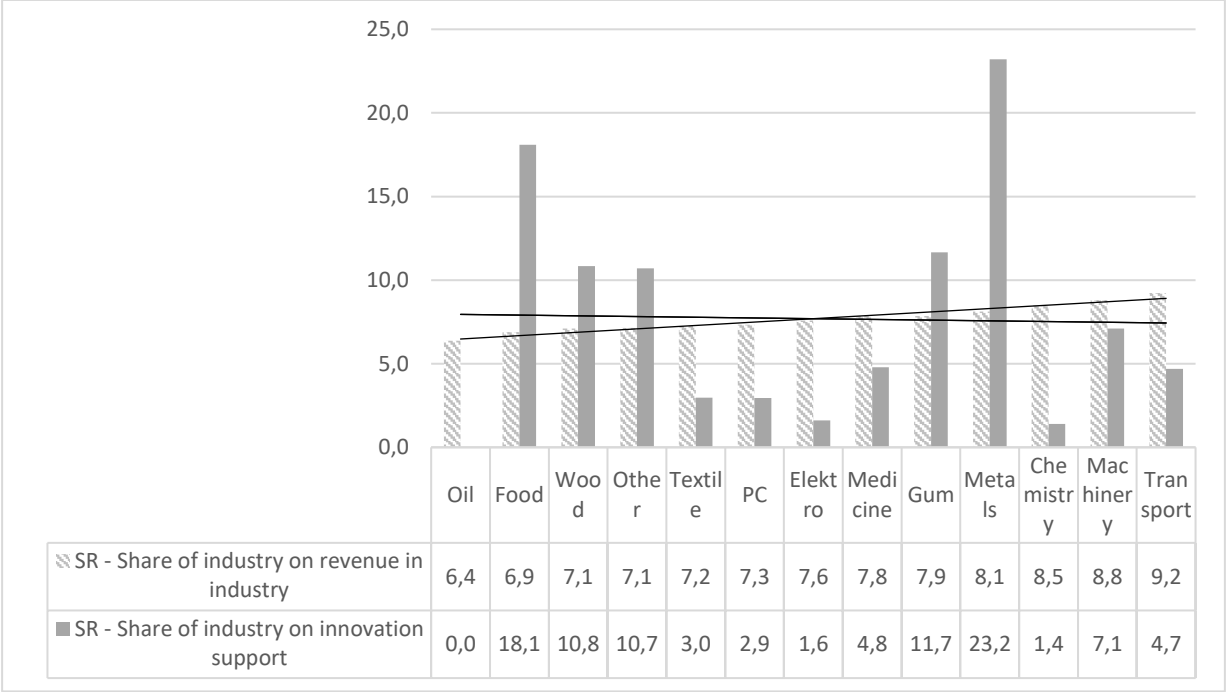


	Medicine	Textile	Oil	Chemistry	Other	Wood	Electro	PC	Machinery	Food	Gum	Metals	Transport
CR - Share of industry on revenue in industry	0,9	1,9	3,7	4,3	4,7	5,3	5,8	6,9	8,1	8,7	9,8	14,5	24,9
CR - Share of industry on innovation support	2,5	4,4	0,0	4,9	2,8	5,4	7,6	3,7	18,9	2,6	16,6	20,0	10,6

Fig. 1. Sectoral aid distribution in Czech Republic for whole programming period 2007-2013 (Source: own calculations – the lines represent trendlines)

On the contrary, the Slovak Republic is food processing stronger supported than its share of production. Overall, better are supported of traditional sectors such as wood processing and mechanical engineering. Conversely, lower amount of aid went to high-tech sectors. Low level of support was given to electrical engineering industry, production of transport vehicles and the production of PCs. It is also interesting that these sectors were the most growing sectors in the period of 2008 -2013.

One of the mentioned differences may occurs when comparing support of traditional or declining sectors compared to new emerging sectors. If we correlate the growth of particular sectors (from 2008 to 2013) with share of sector´s support, the correlation is -0,23 i.e. for Slovak Republic. So it looks like support is slightly more oriented on less growing or declining industries.



	Oil	Food	Wood	Other	Textile	PC	Elektro	Medicine	Gum	Metals	Chemistry	Machinery	Transport
SR - Share of industry on revenue in industry	6,4	6,9	7,1	7,1	7,2	7,3	7,6	7,8	7,9	8,1	8,5	8,8	9,2
SR - Share of industry on innovation support	0,0	18,1	10,8	10,7	3,0	2,9	1,6	4,8	11,7	23,2	1,4	7,1	4,7

Fig. 2. Sectoral aid distribution in Slovak Republic for whole programming period 2007-2013 (Source: own calculations)

If we look at a more detailed analysis by sectors at double digit NACE classification, the results can be seen in Table 1. In the Czech Republic are dominant sectors of 2X, while in the case of the Slovak Republic is support more diversified. Particularly interesting is the fact that in many businesses supported in Slovakia the industry is not the main activity. Main sectors were trade (NACE 46) and construction (NACE 41), although projects were primarily focused on manufacturing activity. This suggest that large part of the support went to companies where manufacturing is not a primary activity of the company. But also traditional sectors related to agriculture (manufacture of food and beverages) are relatively more supported in Slovak Republic.

Several sectors are supported heavily in both countries and they are mainly related to machinery and automotive sector. The most supported sectors both in Slovakia and the Czech Republic are NACE 25 - Manufacture of fabricated metal products, except machinery and equipment, NACE 28 - Manufacture of machinery and equipment and NACE 22 - Manufacture of rubber and plastic products.

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Table 1. The most supported sector on ČR and SR

TOP sectors ČR		TOP sectors SR	
NACE code in EUR	Total sum	NACE code	Total sum in EUR
28	152 152 437,22	25	51 795 166,93
25	135 144 608,57	46	39 682 335,63
22	79 504 579,03	11	24 860 757,72
27	60 756 277,70	22	21 977 702,25
29	55 026 440,18	10	18 762 481,61
23	53 653 581,98	28	17 111 991,55
20	39 491 211,23	31	12 888 399,10
13	32 720 457,90	41	12 719 068,48
30	30 297 378,14	16	11 786 920,73
26	29 907 828,66	21	11 535 253,00

Source: own calculation. (NACE codes : 10 - Manufacture of food products,11- Manufacture of beverages 13 - Manufacture of textiles, 16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials, 21 - Manufacture of basic pharmaceutical products and pharmaceutical preparations 22 - Manufacture of rubber and plastic products ,23 - Manufacture of other non-metallic mineral products 25 -Manufacture of fabricated metal products, except machinery and equipment, 26 - Manufacture of computer, electronic and optical products , 27 - Manufacture of electrical equipment, 28 - Manufacture of machinery and equipment n.e.c., 29 - Manufacture of motor vehicles, trailers and semi-trailers, 30- Manufacture of other transport equipment , 31- anufacture of furniture, 41 – Construction of buildings 46- Wholesale trade, except of motor vehicles and motorcycles)

5 Regional dimension

The sectoral dimension of support is only part of overall picture to understand the distribution of the aid. We look more closely on how certain sectoral support is distributed among particular regions. We analyse two of the most supported sector in both countries – manufacture of machinery and equipment (NACE 28) and Manufacture of fabricated metal products, except machinery and equipment 25). These sectors are one of most traditional sectors. The figures 3 and 4 show detailed distribution of support in NACE 25 among different regions.

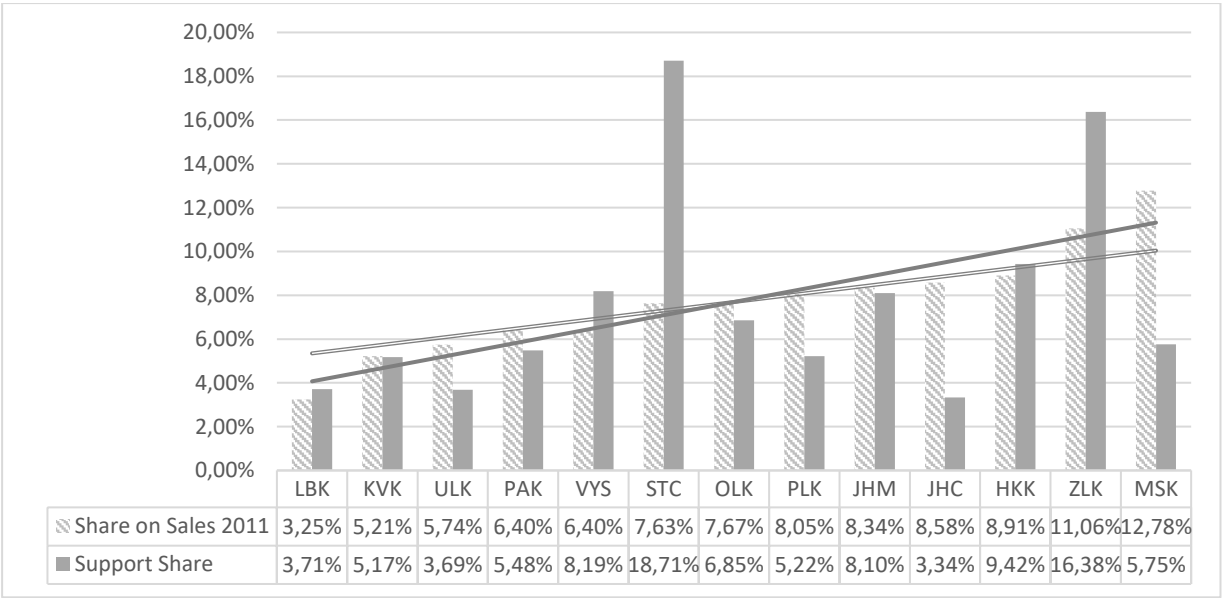
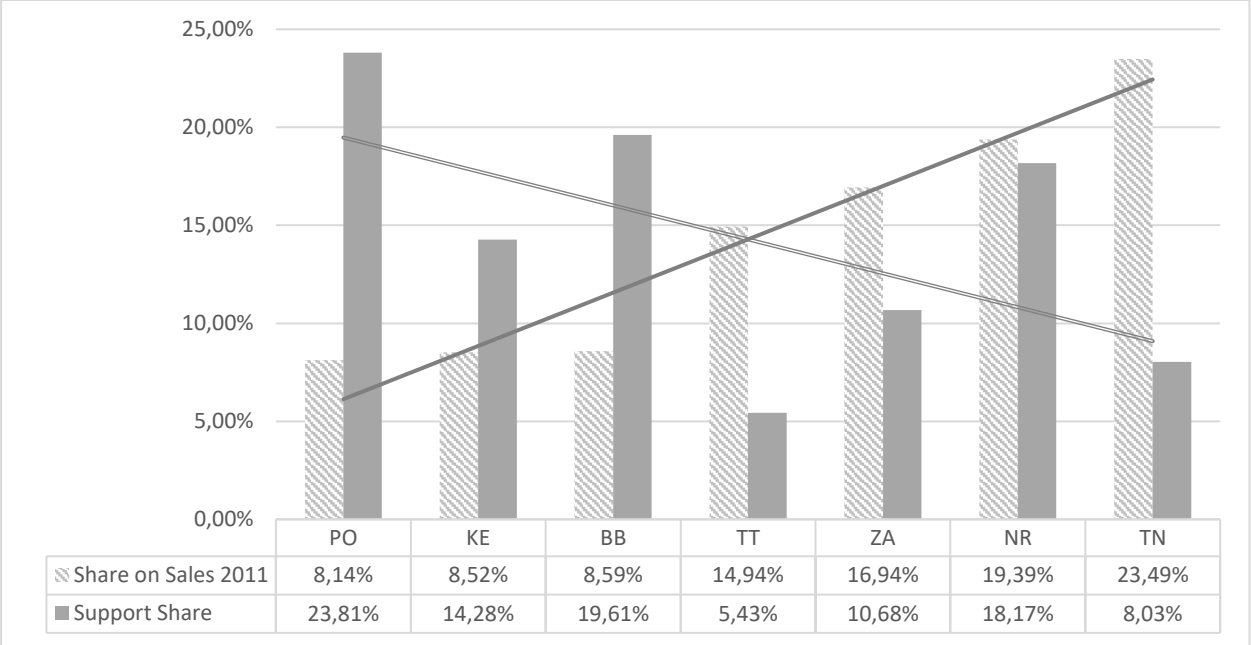


Fig. 3. Sectoral aid distribution in Czech Republic for NACE 25 projects for whole programming period (Source: own calculations)

Compared to this, the correlation for Slovak republic is -0,58, so this indicate totally opposite distribution. The more lagging regions got much higher total amount of support compared to their share. So selection procedures lead to totally different sectoral - regional distribution of support compared to Czech Republic.



	PO	KE	BB	TT	ZA	NR	TN
Share on Sales 2011	8,14%	8,52%	8,59%	14,94%	16,94%	19,39%	23,49%
Support Share	23,81%	14,28%	19,61%	5,43%	10,68%	18,17%	8,03%

Fig. 4. Sectoral aid distribution in Slovak Republic for NACE 25 projects for whole programming period (Source: own calculations)

Very similar results apply also for NACE 28 sector. The correlation coefficient was 0,08 in Czech Republic and -0,35 in Slovak Republic. However, in both countries the most supported regions were the ones with low proportion of this sector. The highest amount of support went to Prešov region (43,48% of all support compares to less than 7% share of total sales in the industry. In Czech Republic, the highest amount of support went to three regions with very small share of sector on Total Sales – Zlínsky, Královohradecký and Karlovarský region.

6 Conclusion

We analysed sectoral distribution of public support for private companies in two countries – the Slovak and the Czech Republic. Despite these countries used similar support measures, the empirical results differ. In the Czech Republic, sectors are more supported according to their performance with higher attention to high-tech sectors. In Slovakia, support is much more diversified; less developed regions with lower economic activity and lower level of sectoral performance were supported. Despite of technology transfer as main goal of the investigated supporting scheme, many projects were supported in companies whose do not have production as their main activity. Regional dimension also plays an important role. Different regional distribution of support was identified in both countries. In Slovakia, the support of less developed regions seems to be more important in terms of support by sectoral performance. In Czech Republic, the results were more in line with the rules of the scheme that were aimed at support the best projects regardless the sector´s or region´s share on total sales in the country.

Despite of similar procedures and goals of the support schemes, the support was distributed in a different way in the two very similar countries. This shows the great importance of the interconnection of specific regional and sectoral characteristics which can significantly affect the success of the provided support. Further research should concentrate on these characteristics that may

open the question of effectiveness or efficiency of the aid. The support could compare also to the different indexes measured innovation potential (as e.g. in Hlaváček, 2016) to see if the support is more oriented to such a regions.

7 Acknowledgement

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