SUPER TAX DEDUCTION AS SUPPORT OF RESEARCH AND DEVELOPMENT IN SLOVAKIA

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Abstract:
Research and development (R&D) and innovation are key components of the Europe 2020 strategy for smart, sustainable, and inclusive growth and they contribute to a knowledge-based economy. The paper deals with the support of R&D within the EU countries, while it focuses on the framework of the relatively new instrument implemented in the tax legislation of several countries in the world, namely in the form of super tax deduction (STD). It is an instrument that is supposed to inspire the entrepreneurs themselves to carry out their own R&D. The great advantage of this instrument is that after meeting the legal conditions, all entrepreneurs can use it, while they do not have to wait for any calls and additional support. Entrepreneurs can generate tax savings that can be used for financing, e.g., also their further R&D, or simply increase their net profit, which can easily be paid to owners. The paper contains an assessment of the development of entrepreneurs who used this support, as well as the development of the number of projects and the amount of support in the form of STD over the period 2015-2020 in Slovakia. Research shows that there is an increasing interest in this support. The last part of the paper shows a model situation when entrepreneurs can profit from this support, if they have used it for more years. The use of STD is a way to contribute to sustainability and competitiveness of agri-food industry.

Keywords: research and development, super tax deduction, tax incentive, entrepreneur

JEL Classification: O31, H3, H25, H26

INTRODUCTION

According to OECD (2015) which is standard for R&D data collection in OECD member countries, "*research and experimental development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society – and to devise new applications of available knowledge"*. R&D activity has to satisfy five core criteria: novel, creative, uncertain, systematic, transferable (or reproducible). The term R&D covers three types of activity: basic research, applied research and experimental development.

The term R&D can also be defined separately. Halásek and Lenert (2008) perceive research as a cognitive creative activity conducted systematically, objectively, conclusively, and precisely with the aim of discovering new facts and achieving new knowledge. This activity can be performed repeatedly, but something new must always be created. Development is a creative technical activity, which is based on the systematic use of knowledge obtained through research, serving to create the most technically and economically efficient procedure (Andrlík & Fialová, 2017).

According to the Ministry of Finance Measure 23054/2002-92 (2002) research is understood as original, planned discovery aimed at achieving new scientific or technological knowledge. Development is meant as application of research outcomes or other knowledge in order to plan or design production of new or significantly improved materials, devices, products, processes, etc. According to the Act no 172/2005 Coll., research is a systematic creative activity carried out in the field of science and technology in favour of society, aimed at developing knowledge, and development is a systematic creative activity in the field

of science and technology using the relations and knowledge acquired through research or previous practical experiences in order to create new materials, devices, products, methods, and process or to improve them.

Research carried out by Stoian et al. (2022) points out the importance of investments in R&D in supporting the sustainable development of agriculture in different countries. According to Pfeiffer and Spengel (2017), there are two types of state support for R&D: direct R&D grants or subsidies or fiscal incentives, which can be in the form input-oriented R&D tax incentives (tax credits and tax super-deductions) or output-oriented incentives (intellectual property boxes). They state that fiscal incentives are easier to implement and are less complex to monitor than direct R&D grants. In their study, the authors also present a review of empirical literature on the effectiveness of R&D tax incentive.

Innovation's multiple effects on economy are visible in terms of economic growth, global competitiveness, financial systems, quality of life, and trade openness. R&D activities generate knowledge and technology that increase productivity at three levels-firm, industry, and national (Satrovic et al., 2020).

Support of innovation as one of the tools of economic growth is present in all economies of EU and developed OECD countries. After evaluating the situation in the developed EU member countries, the Czech Republic enacted a system of using the tax deduction for income tax since 2005 (Bočková & Meluzín, 2016).

Andrlík and Fialová (2017) have dealt with tax deduction in the Czech Republic since 2005 to 2014. They also evaluated indirect support for R&D (% of GDP) in selected OECD countries in 2014.

Janeček et al. (2012) state several benefits and disadvantages of indirect R&D support (represented by tax deduction). First, it is the stimulation of investments in R&D. These incentives do not disturb the competitive environment due to equal conditions for all tax subjects. Tax deduction brings lower administrative costs associated with the grant application process and the creation of certainty in research funding. Disadvantages could include more complex tax legislation, as well as tax deduction link to the positive earnings before taxes of tax subjects. Also, there is the risk of non-recognition of the tax deduction and possible tax fines associated with it. This risk is related to the fact that R&D project plans are assessed by tax officials and not R&D experts.

Remeta et al. (2015) wrote, that the Slovak system offers both forms of R&D support (direct and indirect). Direct subsidies are granted by the Ministry of Education whereas income tax relief is granted by the Ministry of Finance. In 2015, a new R&D tax relief scheme was introduced. The new relief was a tax deduction for R&D expenditure with the possibility of a carry forward of up to four years for companies with insufficient profits or in a loss position. This form of support is also suitable for SMEs, while the scheme originally introduced in 2010 primarily took into account large entities.

Jančičková and Pakšiová (2021a) used the quantitative analysis and comparison to investigate companies that used the R&D cost deduction in the context of legal form in the period 2015 to 2018 in Slovakia. The authors Jančičková and Pakšiová (2021b) also published their research on Slovak companies, which used R&D cost deduction according to SK-NACE. In 2018, only 1 company from the agricultural sector and 7 companies from the Food processing industry, which implemented 18 projects, used super tax deduction.

1. DATA AND METHODS

The aim of the paper is to point out the development of R&D expenditures in EU countries with focusing on fiscal incentives (indirect state support of R&D) in the form of input-oriented R&D tax incentives (namely super tax deduction) in Slovakia over the period 2015-2020.

We used analysis of literary sources focusing on R&D in general and R&D tax incentives. For analyse of R&D expenditure (% of GDP) in EU we used OECD data and for the structure of R&D expenditure in Slovakia we used data of Statistical Office of the Slovak Republic according to sector classification and scientific areas over the period 2010-2020.

For analyse of super tax deduction (STD) we used data of *Financial Administration Slovak Republic, where we researched number* R&D projects of STD, number *of entrepreneurs with STD and their tax*

savings. We used descriptive statistic (lower quartile, average, median, upper quartile) and box plot analyse of STD values. In the last part of the paper, we used 5 model situations to describe how the entrepreneurs can profit from this support without and with an additional incremental deduction. According to the methodological guideline (Financial Administration Slovak Republic, 2021) this incremental deduction (ID) can be calculated by the formula:

$$ID_{2020} = \frac{(R\&D\ costs_{2020} + R\&D\ costs_{2019})}{2} - \frac{(R\&D\ costs_{2019} + R\&D\ costs_{2018})}{2} \quad (1)$$

Then we can calculate super tax deduction (STD) in Slovakia by the formula:

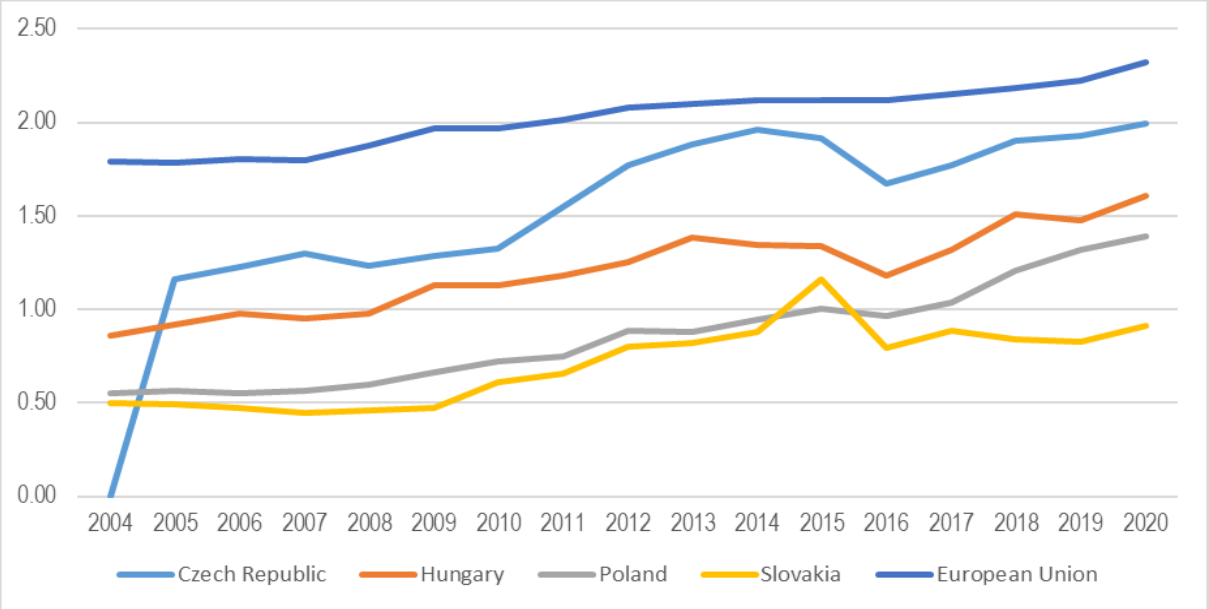
$$STD_{2020} = (R\&D\ costs_{2020}) * basic\ rate_{2020} + ID_{2020} \quad (2)$$

2. RESULTS

2.1 Support of R&D within the EU countries

R&D and innovation are key policy components of the Europe 2020 – A European strategy for smart, sustainable and inclusive growth (European Commission, 2010). One of its targets was that 3% of the EU's GDP should be invested in R&D until 2020. According to Fig. 1, we can conclude that the share of R&D expenditure (% of GDP) had a growing tendency in the EU from 2004 to 2020, but the required level 3% had not been reached. An increasing trend of R&D expenditure was recorded in all V4 countries, with the Czech Republic dominating. Except for 2015, Slovakia achieved the lowest values in comparison to the other V4 countries. Based on the analysed data, we can claim that the highest percentage increase from 2019 to 2020 within the V4 countries was recorded in Hungary.

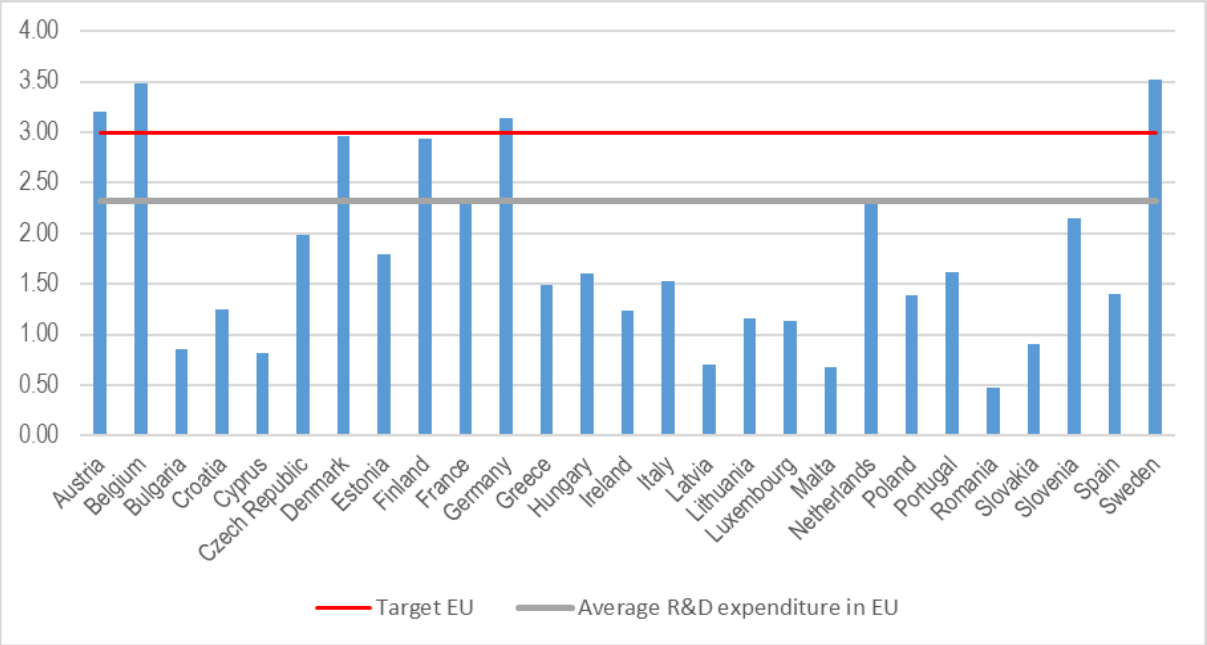
Fig. 1 R&D expenditure (% of GDP) in years 2004-2020 in EU and V4 countries



Source: OECD, own processing

In 2020, the average R&D expenditure (% of GDP) in EU member states was at the level of 2.32%. Only Sweden, Germany, Belgium, and Austria met the target (3%) in 2020. The lowest values were measured in Romania, Malta, Cyprus, and Latvia (Fig. 2). In the V4 countries, the highest value (1.99%) was reached in the Czech Republic, whereas the lowest one in Slovakia at only 0.91%, even though Slovakia set the target of 1.2% within the framework of the Europe 2020 strategy. Slovakia did not reach the share of R&D expenditure at the level 1% (% of GDP) over the whole period 2000-2020, so we can claim that R&D is underfunded in long term in Slovakia.

Fig. 2 R&D expenditure (% of GDP) in EU countries in 2020



Source: OECD, own processing

Tab. 1 shows the structure of R&D expenditure in the Slovakia according to sector classification over the period 2010-2020 in percentages. The business enterprise sector reached the biggest share on expenditure (over 54%) in 2020. Higher education sector with 26.18% were on the second place and state (government) sector with the share just beneath 20% was on the third place (Tab. 1).

Tab. 1: Structure of R&D expenditure in Slovakia over the period 2010-2020 according to sectors (%)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Business enterprise sector	42.09	37.18	41.35	46.26	36.84	27.95	50.36	54.12	54.08	54.83	54.08
Stat (government) sector	29.96	27.66	24.52	20.48	28.34	27.86	21.44	20.81	21.22	19.95	19.72
Higher education sector	27.64	34.95	34.03	33.1	34.42	43.79	27.71	24.67	24.28	25.19	26.18
Private non-profit sector	0.31	0.21	0.1	0.15	0.41	0.4	0.49	0.41	0.42	0.03	0.03

Source: Statistical Office of the Slovak Republic

From the point of view of scientific areas, technological sciences had the largest share, which made up almost 55% of the total R&D expenditure in 2020. Natural sciences made up 22.5% and agricultural sciences had the smallest representation (Tab. 2).

Tab. 2: Structure of R&D expenditure in Slovakia over the period 2010-2020 according to scientific areas (%)

Sciences/Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Natural	19.92	20.72	20.48	17.71	17.77	15.94	16.27	19.56	19.86	20.22	22.49
Technological	53.59	47.68	46.92	51.01	48.77	48.02	55.77	58.14	58.77	58.17	54.83
Medical and pharmac.	7.1	7.96	8.46	8.95	9.98	7.48	6.65	5.1	4.82	5.21	7.18
Agricultural	8.2	7.57	6.74	3.18	6.94	7.97	6.29	5.23	4.81	4.66	3.42
Social	6.99	8.46	7.44	7.5	10.34	17.14	9.91	7.21	6.51	6.08	6.41
Humanities	4.21	7.62	9.96	11.65	6.21	3.45	5.12	4.77	5.22	5.66	5.67

Source: Statistical Office of the Slovak Republic

Agricultural and food businesses could be supported more. Therefore, in the next part of the paper, we will focus on fiscal incentives (indirect state support of R&D) in the form of input-oriented R&D tax incentives in Slovakia, namely super tax deductions (STD). These can be used automatically by all entrepreneurs who want to devote themselves to R&D and do not want to rely on a relatively lengthy and administratively demanding process for obtaining direct state support of R&D in the form of grants or subsidies.

2.2 Super tax deduction for R&D costs in Slovakia

According to the Worldwide R&D Incentives Reference Guide (EY, 2022), the tax deduction (as a form of R&D incentives) has been used in the following countries of the European Union: Belgium, Czech Republic, Denmark, Hungary, Ireland, Italy, Lithuania, Netherlands, Poland, Portugal, Romania, Slovakia, and Slovenia.

Since 1 January 2015, entrepreneurs in Slovakia can apply for an additional deduction (the so-called "super tax deduction") of R&D costs. They can generate tax savings that can be used for financing, e. g. also their further R&D, or simply increase their net profit, which can easily be paid to owners. The great advantage of this instrument is that after meeting the legal conditions, all entrepreneurs can use it. One of the conditions is to prepare an R&D project plan, which does not need to be submitted to the tax authorities in advance for approval. The entrepreneur applies the additional deduction of his/her R&D costs in the tax return. This applies for natural persons (entrepreneurs) as well as legal entities. The principle of super tax deduction is that the entrepreneur can have the qualifying R&D costs deducted from the tax base more than once.

Tab. 3 shows the base rate (BR) of "super tax deduction" (STD) by which real incurred R&D costs have been included in the costs again. This base rate increased from 25% in 2015 to 200% in 2020 (Tab. 3). The base rate 200% was also applied for 2021, but according to the Amendment to the Income Tax Act, this percentage dropped again to 100% since 1 January 2022, which we evaluate negatively. In addition to the basic rate of STD, the entrepreneur can apply positive difference in the year-on-year increase of R&D costs, so as the additional incremental deduction (ID) of 100% (measured against the prior two years).

The advantage of STD is the possibility to carry the unused part of STD to another tax period. Since 1 January 2020, the period has been extended from four to five tax periods immediately following the tax period in which the claim for STD arose.

Tab. 3: Super tax deduction in Slovakia in the period 2015-2020

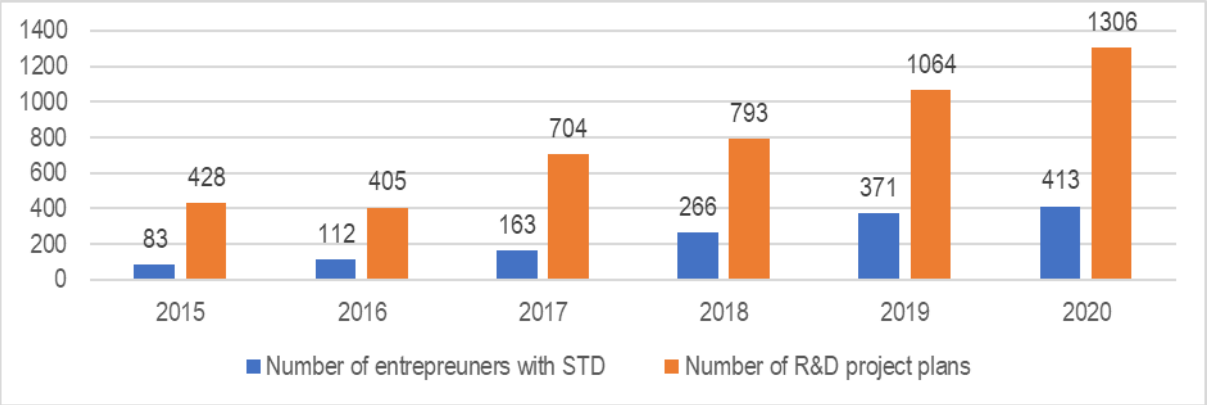
	2015	2016	2017	2018	2019	2020
Base rate of super tax deduction in %	25%	25%	25%	100%	150%	200%
Super tax deduction in EUR	9 217 011	16 484 764	40 118 666	120 315 361	117 669 546	171 165 728
Corporate income tax rate in %	22%	22%	21%	21%	21%	21%
Tax savings in EUR	2 027 742	3 626 648	8 424 920	25 266 226	24 710 605	35 944 803

Source: Financial Administration Slovak Republic, own processing

As we can further observe from Tab. 3, the amount of STD in the period from 2015 to 2020 grew from 9.2 million EUR in 2015 to 171.2 million EUR in 2020. This increasing trend was caused not only by the growing base rate of STD, but also by the growing number of entrepreneurs and their implemented R&D

project plans (Fig. 3). One entrepreneur can have more than one R&D project plan. Finally, in Tab. 3, we also present the amount of tax savings in EUR, while we calculated it as the product of the corporate income tax rate valid in the given year and the sum of STD. We noted that in accordance with the Act on Income Tax, STD can also be claimed by natural persons entrepreneurs who have a different rate of income tax. However, we recorded only a small number of these entrepreneurs in the monitored period.

Fig. 3 Number of entrepreneurs with STD and number of R&D project plans over the period 2015-2020



Source: Financial Administration Slovak Republic, own processing

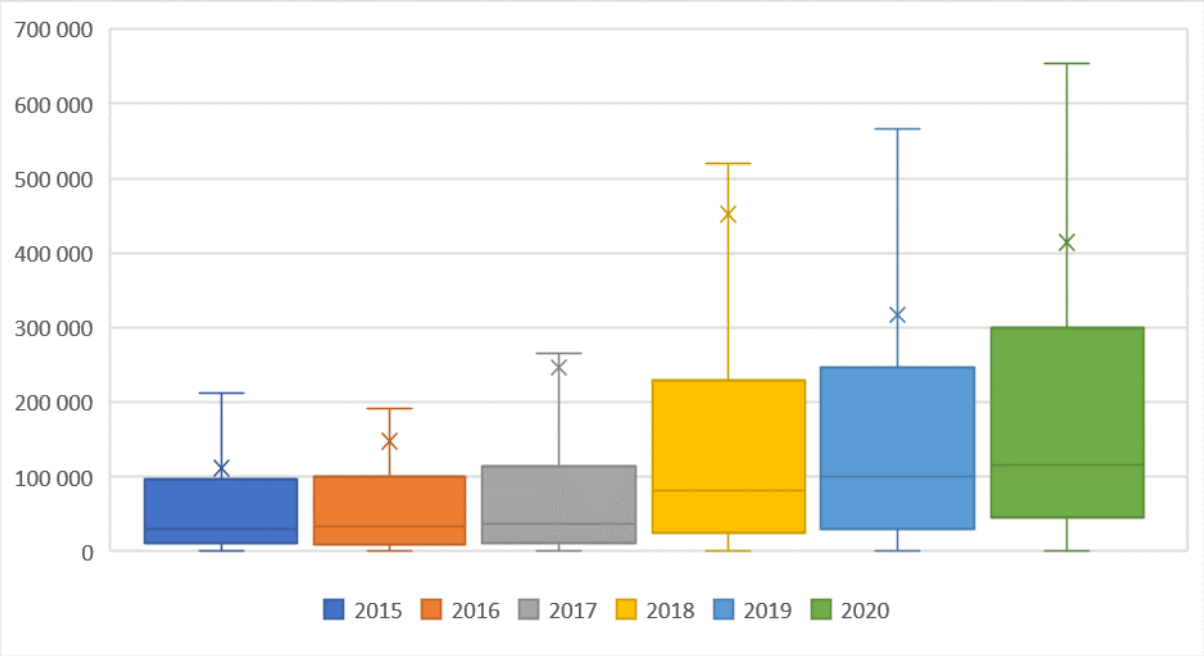
For a more detailed analysis of the STD values, we present basic descriptive statistics (Tab. 4). We can observe that value of median is lower than average over the all period, which means that a few entrepreneurs reached higher value of STD in comparison with others in every year. Median values of STD were increasing all over the period and in 2020 they reached the value of 115,904 EUR per entrepreneur, which at a 21% corporate income tax rate represents a tax saving of 24,340 EUR. We also observe a growing spread between the upper and lower quartiles, so there is greater variability in the volume of the STD in the most recent researched years (Fig. 4).

Tab. 4: Descriptive statistics of STD values in Slovakia over the period 2015-2020

	2015	2016	2017	2018	2019	2020
STD in EUR	9 217 011	16 484 764	40 118 666	120 315 361	117 669 546	171 165 728
Number of entrepreneurs	83	112	163	266	371	413
Lower Quartile	10 148	9 110	11 380	25 144	29 508	45 212
Average	111 048	147 185	246 127	452 313	317 169	414 445
MEDIAN	30 388	33 878	35 950	80 679	100 469	115 904
Upper Quartile	96 387	99 985	113 819	228 852	245 959	299 825

Source: Financial Administration Slovak Republic, own processing

Fig. 4 Box plot analyse of STD over the period 2015-2020 in EUR



Source: Financial Administration Slovak Republic, own processing

2.3 Model situation of an additional incremental deduction

As we stated in the previous chapter of the paper, the entrepreneurs can apply positive difference in the year-on-year increase of R&D costs (incremental deduction) in addition to the basic rate of super tax deduction. See chapter data and methods of this paper.

Tab. 5 shows the results of the calculations of additional tax savings for entrepreneur, who applies STD in 5 variants:

1. Based on the variant 1, if the entrepreneur has R&D cost at the level of 50,000 EUR, his/her standard tax saving by the 21% income tax rate would be 10,500 EUR. Since 2020, he/she has started realizing his/her own R$D project plan and therefore is entitled to STD in the amount of 100,000 EUR (by base rate 200%). This STD does not include an incremental deduction (ID), because he/she has started implementing R&D project plan only since 2020. By implementing his/her own R&D project plan and applying STD, he/she had additional tax savings of 21,000 EUR. This is basically the indirect support from the state, that he/she has started implementing his/her own R&D. Its actual R&D costs after considering the total tax shield (including STD) were at the level of 37.0%, instead of 79.0%.
2. In variant II, we can observe that the entrepreneur has already started implementing his/her own R&D project plan since 2018. The R&D costs were in every year at the same level of 50,000 EUR. Although he/she was entitled to incremental deduction (ID), since he/she was implementing the own R$D project plan already 2 years before 2020, but ID was equal to 0 EUR. The reason was the zero difference in the year-on-year increase of R&D costs.
3. In variant III we can observe the positive difference in the year-on-year increase of R&D costs, what caused additional increase of STD by 25,000 EUR. Its actual R&D costs after considering the total tax shield (including STD) were only at the level of 26.5%, instead of 37.0%
4. Variant IV is almost the same as variant III, but the entrepreneur invested 50,000 EUR to R&D in 2018, then he/she reduced R&D costs to 1 EUR in 2019. This did not result in positive difference in the year-on-year increase of R&D costs and the R&D costs after considering the total tax shield (including STD) were at the same level of 37.0% as in Variants I and II.

5. It follows from the last variant V that although the entrepreneur R&D costs were only EUR 1 in both years 2018 and 2019, in 2020, he/she can calculate with incremental deduction in maximum possible level.

Tab. 5: R&D costs after tax shield in several variants

Variants	R&D costs			2020			Tax savings without STD	Additional tax savings thanks to STD	R&D costs after tax shield without STD	R&D costs after tax shield with STD	R&D costs after tax shield with STD (%)
	2018	2019	2020	BR (200%)	ID	STD					
Variant I	0	0	50 000	100 000	0.0	100000.00	10500.00	21000.00	39500.00	18500.00	**37.0%**
Variant II	50 000	50 000	50 000	100 000	0.0	100000.00	10500.00	21000.00	39500.00	18500.00	**37.0%**
Variant III	1	50 000	50 000	100 000	24999.50	124999.50	10500.00	26249.90	39500.00	13250.10	**26.5%**
Variant IV	50 000	1	50 000	100 000	0,0	100000.00	10500.00	21000.00	39500.00	18500.00	**37.0%**
Variant V	1	1	50 000	100 000	24999.50	124999.50	10500.00	26249.90	39500.00	13250.10	**26.5%**

Source: authors, own processing

CONCLUSION

Except for 2015, Slovakia achieved the lowest values of R&D expenditure (% of GDP) in comparison with other V4 countries. Average target of R&D expenditure for EU countries was close to 3% of GDP to 2020. Slovakia reached R&D expenditure under the level of 1% (% of GDP) over the all period 2000-2020, so we can claim that Slovakia R&D is underfunded in long term. The business enterprise sector reached the biggest share on expenditure over the period 2010-2020, whereas according to scientific areas the biggest support was attributed to technological sciences.

Generally, there are two types of state support for R&D, namely direct R&D grants or subsidies or fiscal incentives, which can be in the form of input-oriented R&D tax incentives (tax credits and tax super-deductions) or output-oriented incentives (intellectual property boxes). Tax deduction (or super tax deduction) can inspire the entrepreneurs to carry out their own R&D. The principle of super tax deduction is that the entrepreneur can deduct his/her qualifying R&D costs from the tax base more than once. The great advantage of this instrument is that after meeting the legal conditions, all entrepreneurs can use it, while they do not have to wait for any state supports. Super tax deduction (STD) has been implemented in 13 countries of the EU, since 2015 in Slovakia, too. The research shows that there is an increasing interest in this support in Slovakia, whereas base rate of STD has been increasing till 2020. 413 entrepreneurs have used STD in Slovakia and their tax savings were at the level of 35.9 mil EUR in year 2020. In 2019, only 12 (3.23% from 371) and in 2020 just 15 (3.63% form 413) entrepreneurs were from the Food processing industry. We see space for further growth in this industry.

Median values of STD by all entrepreneurs were increasing all over the period and they reached the value of 115,904 EUR per entrepreneur, which at a 21% corporate income tax rate represents a tax saving of 24,340 EUR. There was greater variability in the volume of the STD in the last researched years, whereas a few entrepreneurs reached higher value of STD in comparison with others in every year. Entrepreneurs can apply positive difference in the year-on-year increase of R&D costs in addition to the basic rate of STD. From our model situations it is advisable to start implementing own R&D project plan as soon as possible. Gradually increasing R&D costs could bring the highest tax savings in the third year of research. R&D costs, after considering the total tax shield (including STD), could achieve only 26.5% of paid R&D cost. The base rate of STD has dropped again to 100 since 1 January 2022, what will have negative influence on tax savings of entrepreneurs and possibly their motivation to implement this instrument. Nevertheless, we evaluate this tool very positively, while it also can help universities to

connect their research with practice, because commercial services of universities can be calculated to eligible R&D costs of entrepreneurs, unlike other private research centres.
As a limitation of the research, we can consider the fact that we analysed the development of STD only in entrepreneurs within the Slovak Republic. Future research may focus on the analysis of the use of this form of tax incentives in different countries in which this type of instrument has been implemented, with deeper focusing on the agri-food industry.

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REFERENCES

Andrlík, B. & Fialová, D. (2017). Tax support for research and development in the Czech Republic. *Business Trends, 7*(2), 36-49.

Bočková, N., & Meluzín, T. (2016). The Manufacturing Industry in the Czech Republic: Indirect Support for Research and Development. *Scientific Papers of the University of Pardubice, Series D: Faculty of Economics and Administration, 24*(1).

European Commission (2010). *Europe 2020 A European strategy for smart, sustainable and inclusive growth.* Retrieved *September 19, 2022* from https://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf

EY (2022). *Worldwide R&D Incentives Reference Guide. Retrieved September 16, 2022 from* https://www.ey.com/en_gl/tax-guides/worldwide-r-and-d-incentives-reference-guide

Financial Administration Slovak Republic (2022). *Zoznam daňových subjektov s odpočtom výdavkov (nákladov) na výskum a vývoj podľa §30c ods. 8*. Retrieved September 26, 2022 from https://www.financnasprava.sk/sk/elektronicke-sluzby/verejne-sluzby/zoznamy/archiv-vybranych-informacnych/archiv-30c8

Financial Administration Slovak Republic (2021). *Metodický pokyn k odpočtu výdavkov (nákladov) na výskum a vývoj podľa § 30c zákona č. 595/2003 Z. z. o dani z príjmov v znení neskorších predpisov*. Retrieved September 21, 2022 from https://www.financnasprava.sk//_img/pfsedit/Dokumenty_PFS/Zverejnovanie_dok/Dane/Metodicke_pokyny/Priame_dane_uct/2021/2021.01.22_12_DZPaU_2021_MP.pdf

Halásek, D. & Lenert, D. (2008). *Ekonomika veřejného Sektoru: (Vybrané Kapitoly).* VSB - Technická univerzita Ostrava.

Jančičková, L., & Pakšiová, R. (2021a). Support of Business Innovation in the form of tax benefits for R&D of entrepreneurs in Slovakia. *Balkans Journal of Emerging Trends in Social Sciences*, *4*(1), 31–42. https://doi.org/10.31410/balkans.jetss.2021.4.1.31-42

Jančičková, L., & Pakšiová, R. (2021b). The structure of supported business R&D initiatives by SUPER-DEDUCTION in Slovakia. *EMAN 2021 Conference Proceedings The 5th Conference on Economics and Management.* https://doi.org/10.31410/eman.2021.293

Janeček, M., Mráček, K., & Neumajer, V. (2012). *Nepřímá podpora výzkumu, vývoje a inovací. Podklad pro přípravu nové NP VaVaI.* Retrieved September 19, 2022 from https://docplayer.cz/2320843-Neprima-podpora-vyzkumu-vyvoje-a-inovaci-podklad-pro-pripravu-nove-np-vavai.html

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https://www.financnasprava.sk/_img/pfsedit/Dokumenty_PFS/Zverejnovanie_dok/Sprievodca/Postupy_uct/2018.01.12_podvoj_uctov.pdf

Zákon č. 172/2005 Z. z. o organizácii štátnej podpory výskumu a vývoja a o doplnení zákona č. 575/2001 Z. z. o organizácii činnosti vlády a organizácii ústrednej štátnej správy v znení neskorších predpisov v znení neskorších predpisov (2005). Retrieved September 19, 2022 from https://www.slov-lex.sk/static/pdf/2005/172/ZZ_2005_172_20220601.pdf

OECD (2015). *Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing.* Retrieved September 16, 2022 from https://doi.org/10.1787/9789264239012-en

OECD (2022). *Gross domestic spending on R&D.* Retrieved September 26, 2022 from https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm

Pfeiffer, O., & Spengel, C. (2017). Tax incentives for research and development and their use in tax planning. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3067926

Remeta, J., Perret, S., Jareš, M., & Brys, B. (2015). *Moving Beyond the Flat Tax - Tax Policy Reform in the Slovak Republic, OECD Taxation Working Papers, No. 22, OECD Publishing.* Retrieved September 16, 2022 from http://dx.doi.org/10.1787/5js4rtzr3ws2-en

Satrovic, E., Muslija, A., J. Abul, S., Gligoric, D., & Dalwai, T. (2020). Interdependence between Gross Capital Formation, public expenditure on R&D and innovation in Turkey. *Journal of Balkan and Near Eastern Studies*, *23*(1), 163–179. https://doi.org/10.1080/19448953.2020.1818027

Statistical Office of the Slovak Republic (2022). *Structure of R & D expenditures (in %).* Retrieved September 19, 2022 from http://datacube.statistics.sk/

Stoian, M., Ion, R. A., Turcea, V. C., Nica, I. C., & Zemeleaga, C. G. (2022). The influence of governmental agricultural R&D expenditure on farmers' income—disparities between EU member states. *Sustainability, 14*(17), 10596. https://doi.org/10.3390/su141710596