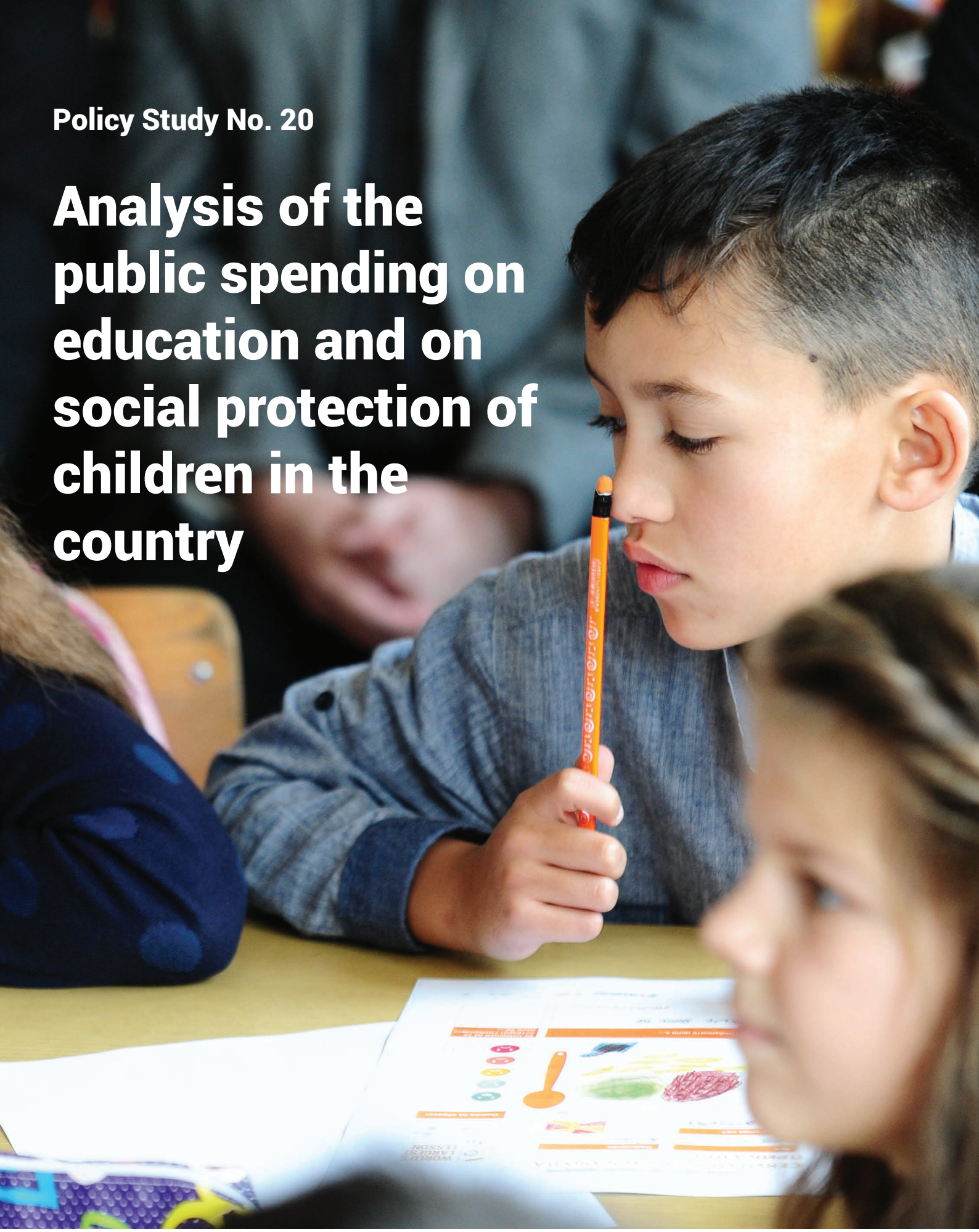
Policy Study No. 20

Analysis of the public spending on education and on social protection of children in the country



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ANALYSIS OF THE PUBLIC SPENDING ON EDUCATION AND ON SOCIAL PROTECTION OF CHILDREN IN THE COUNTRY

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1. INTRODUCTION

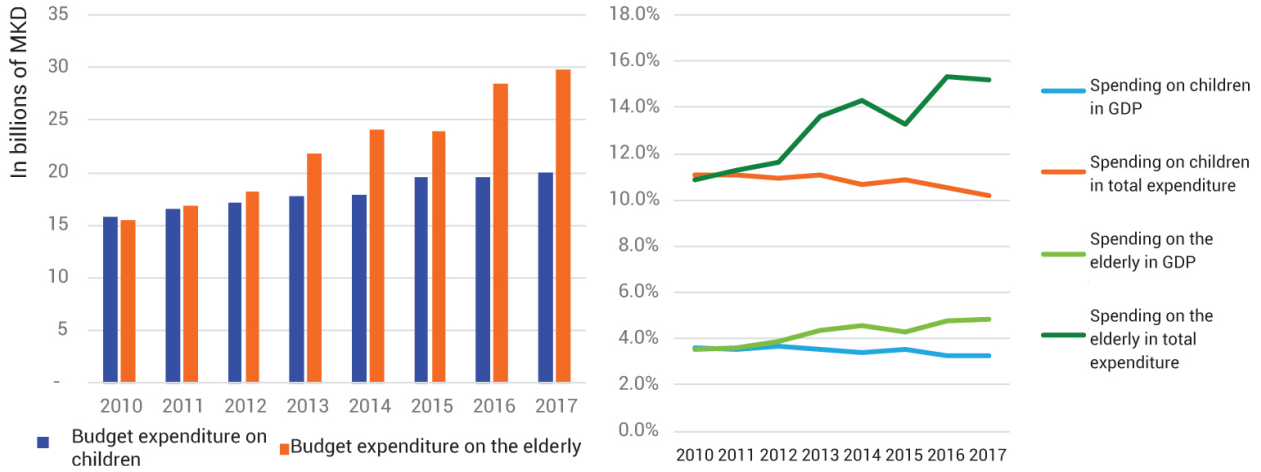
The Government of the former Yugoslav Republic of Macedonia allocates and realises the budget funds based on the national priorities set. However, it is not always clear how public money is spent. The purpose of this study is to give an overview of the spending relating to children, in two main domains of their coverage: social protection and education. Children cannot vote or lobby for allocation and spending of the public resources, but their wellbeing and development are essential for the overall economic and social development of the country. Hence, investments in their wellbeing, stability, education and health should be a national priority.

In 2017, the Government spent EUR 325 million on programmes for children. Programmes for children are all the programmes in the Budget of the country that could be directly linked to children, but also a proportional part of the spending on social assistance and preventive protection. Compared to 2010, the amount spent on children increased by 26.7 percent. But, in the same period, the nominal economic growth was 41.7 percent, which means that the increase in the spending on children did not follow the tempo of the economic growth. Therefore, the expenditure for children in 2010 were 3.6 percent in the Gross Domestic Product (GDP), and in 2017 that share decreased to 3.2 percent.

A significantly larger portion of public funds in 2017 – 50 percent more than the costs for children – was spent on programmes for the elderly. Programmes for the elderly (of people over 65 years of age, 65+) are all the programmes in the Budget of the country, which could be directly linked to the elderly (pensioners), but also a proportional part of the spending on social assistance and complete health care for all. Graph 1 (left) shows that the funds for programmes for the elderly in 2010 were a little bit lower than the funds spent for children. The rapid increase in the funds intended for the elderly population – particularly the increase in the funds for financing the Pension and Disability Insurance Fund over the funds collected from contributions – caused the funds spent for children to significantly fall behind relative to the funds spent for the elderly. In the observed period, the costs for the elderly doubled, i.e. their increase was 92.7 percent, which is almost four times bigger than the increase in the costs for children and two times bigger than the economic growth. This is also confirmed in Graph 1 (right), which presents the shares of the costs for children and for the elderly in the GDP and in the total budget of RM. It is evident that in 2010 they have the same initial basis, but then there is a slight drop in the costs intended for children and a relatively rapid increase in the costs intended for the elderly.

With this tempo of decreasing the costs for children and increasing the costs for the elderly, the gap between the two categories would increase at a galloping pace. Graph 2 makes a projection of the trend of both types

Graph 1 – Costs for children (0-17) versus costs for the elderly (65+)



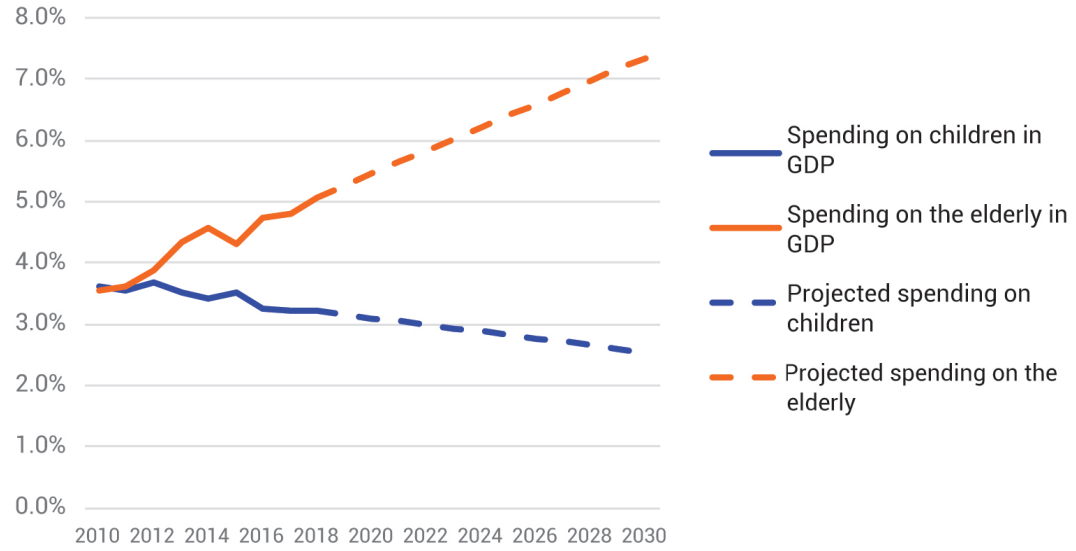
Source: Data collected by the authors from the final accounts of the Budget of RM

of costs; the trend-projection assumes that there is no change in the current policies and programmes. Under this assumption, the results are astounding: in 2030, the share of the costs for children would decrease to 2.5 percent in GDP, and the share of the costs for the elderly would increase to 7.4 percent.

Similar worrying trends are also noticed in the comparison of the costs for children with the interest payments. Graph 3 gives an overview of these movements. The cost for the public debt interest is significantly lower in amount, compared to the cost for children. But, in a relatively shorth period, the public debt doubled in relative indicators and increased threefold in absolute indicators, which also triggered an increase in the costs incurred by the state for interests. In the period from 2010 to 2017, the interest repayments increased from 0.7 percent in GDP to 1.4 percent in GDP, i.e. they doubled, similarly to the doubling of the costs for the elderly. Graph 3 (right) shows the growing trend of the interest costs, versus the declining trend of the costs for children.

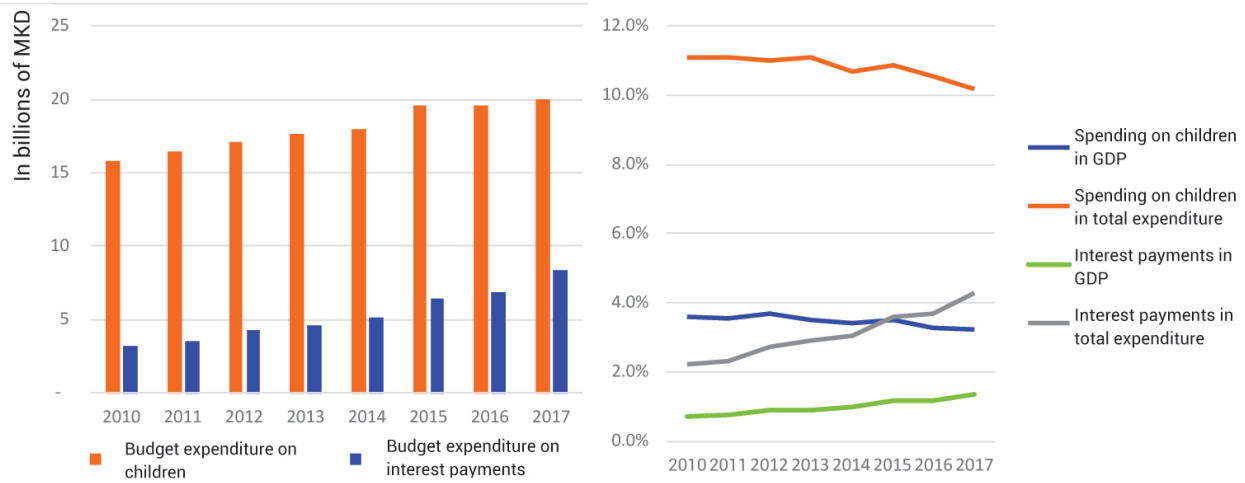
The tendencies in the costs for children shown in the graphs above indicate the need to understand in detail the spending of public money on programmes and policies for children. This policy study will satisfy one part of that need. In the next section of the study we will address the programmes

Graph 2 – Trend-projection of the costs for children versus the costs for the elderly



Source: Data collected by the authors from the final accounts of the Budget of RM.

Graph 3 – Costs for children versus public debt interest costs



Source: Data collected by the authors from the final accounts of the Budget of RM.

of two key domains relating to children: social protection and quality of life, and education.

The study is organised in the following manner. Section 2 gives a detailed overview of the programmes for children from the two domains analysed in this study. Section 3 analyses the costs for the programmes and policies for children, according to several parameters. Section 4 makes an initial attempt to assess the potential effects of the budget spending on children over some important outcomes. Section 5 draws the conclusions. While Section 6 provides a map about how these issues could be analysed in the future and of the resources and interactions that this would imply.

2. OVERVIEW OF THE PROGRAMMES FOR CHILDREN IN THE NATIONAL STRATEGIES AND STRATEGIC DOCUMENTS

The National Strategy for Reduction of Poverty and Social Exclusion 2010-2020, National Programme for Development of Social Protection 2011-2021, National Strategy for Deinstitutionalisation 2008-2018, Law on Child Protection, Strategic Plans of the Ministry of Education and Science (MoES) 2015-2017 and 2016-2018, Education Strategy 2018-2025, are the most important strategic documents setting the objectives for social protection, improving the standard of living and of children's education.

Table 1 gives an overview of the key education programmes for children up to 18-years of age, for the period 2010-2018. The programmes for children are aimed at realising the key vision of the strategic documents for education, which is good quality, inclusive and integrated education. The measures and policies for children implemented in the period 2010-2018 are structured into five programmes: quality primary education, quality secondary education, pupil standard, investments in infrastructure and other policies. The key objectives of the programmes for quality of the primary and secondary education include: to improve the quality of education, to increase the use of information tools in the educational process, to improve the quality of the teaching staff and to increase communication between teachers and parents. The measures implemented in these two programmes are the following: tablet for every child, computer for every child, introduction of the nine-grade system, e-diary, external testing, reform of the curricula for mathematics and natural science, training of the teaching staff and monitoring of the implementation of the programme with the support of Cambridge, training for teachers and state graduation exam. The programme for pupil standard is aimed at improving the standard of living, mainly for pupils from vulnerable families: families with low income and social assistance beneficiaries, children without parents, children with special needs, pupils from ethnic groups. In this group, the following measures have been implemented: free textbooks; programme for conditional cash transfer for secondary education; project for interethnic integration in the primary and secondary education; scholarships for social support of pupils from secondary schools; scholarships for pupils – children without parents from secondary schools; scholarships for Roma pupils enrolled in the first, second, third and fourth year in secondary schools; scholarships for pupils with special needs from secondary schools; and pupil standard of pupils from secondary education. The programme for investments in infrastructure reflects the capital investments aimed at improving the conditions in primary and secondary education. The measures in this programme are: investments in the infrastructure of primary education; investments in the infrastructure of secondary education; and reconstruction and renovation of student dormitories. The other policies group includes: implementation of the Action Plan for Education in the Roma Decade and the programme for counselling of parents, which are aimed at raising the level of education in children of the Roma population and pupils at risk of developing educational and social difficulties. The Ministry of Education and Science is the key holder and has the competence to implement these measures and programmes.

Table 2 summarises the programmes and measures in the area of social protection of children and the individual objectives and scope of the measures. The measures are classified into four programmes: child protection; rights and services of social protection, institutional and extra-institutional protection. The programmes are aimed at improving children's standard of living and quality of life, creating conditions for care and protection of children from vulnerable families and families at social risk. The Child

Table 1 - Overview of the programmes for education of children implemented in the period 2010-2018

Programme	Purpose	Year of introduction
Quality primary education		
Tablet for every child	Increasing the use of information tools in order to improve teaching quality.	2015
Introduction of the nine-grade system	Improving the quality of primary education.	2007
E-diary Internet in every school	Improving the communication between teachers and parents; Enabling fast and simple inspection of the information from the diary by teachers in the school; Control and monitoring of education quality.	2011
External testing	Improving the curriculum, educational process, and control and monitoring of education quality.	2013
Reform of the curricula for mathematics and natural science, training of the teaching staff and monitoring of the implementation of the programme with the support of Cambridge	Improving the quality of curricula for mathematics and natural science and their implementation.	2014
Computer for every child	Increasing the use of computers and the Internet, which will improve the information technology skills of pupils, but also those of their professors;	2007
Training for teachers provided from the budget and from donor programmes	Improving the quality of primary education.	2007
Quality secondary education		
Tablet for every child	Increasing the use of information tools.	2015
State graduation exam	Improving the curriculum, educational process, and control and monitoring of education quality.	2008
E-diary	Improving the communication between teachers and parents; Enabling fast and simple inspection of the information from the diary by teachers in the school; Control and monitoring of education quality.	2011
External testing	Improving the curriculum, educational process, and control and monitoring of education quality.	2013
Computer for every child	Increasing the use of computers and the Internet, which will improve the information technology skills of pupils, but also those of their professors; Improving the quality of secondary education; Improving the curriculum to keep it up-to-date with the new technologies.	2007
Pupil standard		
Free textbooks, free bus transport, free accommodation in student dormitories	Rise in citizens' standard of living and better quality of life; Investing in education, innovations and in information technology as key elements for creating a knowledge-based society.	2014
Programme for conditional cash transfer for secondary education	Providing financial support-scholarship for pupils from households that are beneficiaries of the right to social financial assistance and from households that have their right to social financial assistance temporarily stopped due to work engagements for performing public duties.	2009
Interethnic integration in the primary and in the secondary education	Creating a political, social and economic climate necessary for the country to achieve sustainable interethnic integration in schools, in other educational institutions and in the society as a whole.	2012 - 2017[1]

[1] The programme was initiated as a USAID project in 2012, while the Ministry of Education and Science provided MKD 3,100,000.00 in the Budget for 2017.

Scholarships for social support of pupils from secondary schools	Better conditions and facilitations for pupils, whose monthly income in the family is minimal.	
Scholarships for pupils – children without parents from secondary schools	Better conditions and facilitations for pupils who are without parents and parental care.	
Scholarships for Roma pupils enrolled in the first, second, third and in the fourth year in secondary schools	Providing better conditions and facilitations for greater inclusion of pupils belonging to the Roma community in the compulsory primary and secondary education.	2015
Scholarships for pupils with special needs from secondary schools	Better conditions and facilitations for greater inclusion of pupils with special needs in the compulsory secondary education.	
Pupil standard of pupils from secondary education	Providing adequate conditions in the student dormitories for pupils from secondary education; Providing financial support-scholarship on different bases for pupils from secondary education.	2015
Investments in infrastructure		
Investments in infrastructure in the sector – primary education	Improving the overall success in the teaching process by providing adequate premises for implementation of the teaching and educational process.	2015
Investments in infrastructure in the sector – secondary education		2015
Reconstruction and renovation of student dormitories		2015
Other policies		
Implementation of the Action Plan for Education in the Roma Decade*	"Every child in school" – compulsory primary and secondary education with serious punitive measures for parents whose children do not attend school.	2015
Programme for counselling of parents	Counselling of parents and pupils after a conflict has been reported by the school; Creating a database for counselled parents and pupils according to the school, conflict, structure etc., and analysis of the results obtained.	2014

Source: Strategic Plan of the MoES 2015-2017, Strategic Plan of the MoES 2016-2018, Education Strategy of R.M. for 2016-2020; Law on Pupil Standard ("Official Gazette" No.52/05, 117/08, 17/11, 135/11, 15/13, 41/14, 146/15 and 30/16)

*Note: Some of the policies/programmes marked with * have been fully or partially implemented with funds from foreign donors.*

Protection Programme includes three sub-programmes: child protection rights; care and education of preschool children; and holidays and recreation for children. The first category includes measures providing a financial allowance for child raising and development at the earliest age, which is usually received by the parent and includes: right to a child allowance, right to a special allowance, one-off financial assistance for a new-born child, participation for recreation and holidays, parental allowance for a third child and parental allowance for a fourth child. The second sub-programme for care and education of preschool children covers measures aimed at an early childhood development and stimulation of the intellectual, emotional, physical, mental and social development of children until they reach six years of age. This category includes: kindergartens; centres for early childhood development; agencies providing services for upbringing and care of preschool children and individuals providing home-based care for preschool children. The third category - holidays and recreation for children - includes children's holiday resorts, which are intended to improve the psychomotor development of children through support for stay, active holiday, socialisation of children, educational, cultural and entertainment, sport and recreational and other activities.

In the programme for social protection rights and services, the measure for children is continuous financial assistance aimed at providing the basic financial means for a child without parents and without parental care, who is not protected based on the right to placement, who has no income on the basis of property and property rights and does not earn any funds pursuant to other regulations, but maximum until they reach 18 years of age. The programme for extra-institutional protection covers two measures for children: placement in a foster

family and right to an organised living with support. The purpose of these measures is to ensure protection and care of children in need of care, supervision and assistance, and who lack adequate conditions for growth and development. The programme for institutional protection includes the right to placement in an institution for social protection of children without parents and children without parental care, children with educational and social difficulties and children with disorderly conduct until they are capable to live on their own. The Ministry of Labour and Social Policy with the social work centres and with the institutions for care are competent for the implementation of social care measures.

Table 2 - Overview of measures and programmes for social protection of children

Programme/Measure	Scope / Purpose
CHILD PROTECTION AND PROGRAMMES FOR CHILD PROTECTION	
I Right to child protection	
Right to a child allowance	Monetary compensation to cover some of the costs for child raising and development.
Right to a special allowance	For a child with specific needs that has physical or mental developmental disabilities or combined developmental disabilities up to 26 years of age, a special allowance is provided as a monetary compensation.
One-off financial assistance for a new-born child	One-off financial assistance for a newborn is provided to the family for their first new-born child.
Participation for recreation and holidays	This right provides financial assistance for holidays and recreation of children, with a view to a healthy physical and mental development and wellbeing. Depending on the material status of the family, participation is provided in the expenses for childcare and education, as well as for holidays and recreation of children in a public institution for children.
Parental allowance for a third child	The right to a parental allowance for a child is exercised by the mother for her third child born alive, irrespective of the material status.
Parental allowance for a fourth child	The right to a financial assistance is exercised by the mother for her fourth child born alive; Allowing women that have given birth to several children to obtain pension, thus facilitating the reduction of aging risks and old age risks to which they are exposed.
II Care and education of preschool children	
Kindergartens	Form of child protection, which is organised as an activity for housing, stay, care, nourishment, upbringing, education, sport and recreational, cultural and entertainment activities, measures and activities for the improvement and maintenance of health as well as stimulation of the intellectual, emotional, physical, mental and social development of children up to 6 years of age, i.e. until their enrolment in primary education.
Centres for early childhood development	The centre for early childhood development implements a programme for early learning and development of preschool children from three to six years of age, i.e. until they enrol in primary school; The centre for early childhood development, according to the duration, implements short programmes lasting up to three hours daily with adjustable working hours as needed by the parents and by the community.
Agencies providing services for upbringing and care of preschool children	As an alternative solution (in lieu of kindergartens), this service provides care at the request of the applicant (parent of guardian of the child) and could be performed in the home of the applicant or accompanying the user of the service.
Individuals providing home-based care for preschool children	An individual may perform independent work in his/her home of the activity for childcare and education, as a professional activity for organising and conducting the housing or stay, care and nourishment of preschool children up to six years of age, or until they enrol in primary school, and children with 10 years of age, but for a maximum of five children and not less than two hours per day.
Children's holiday resort	Children's holiday and recreation is a form of child protection, which is organised as an activity for stay, active holiday, socialisation of children, educational, cultural and entertainment, sport and recreational and other activities with the children for the development of children's psychomotor abilities and abilities to reach an agreement, respect the differences and cooperate in groups, abilities to accept oneself and others and orientation in space.
SOCIAL PROTECTION RIGHT AND SERVICES	
Continuous financial assistance	The purpose of this assistance is to provide basic financial means to persons unable to work or financially insecure, who cannot ensure their means of subsistence on any other basis; The right to use this assistance is exercised by a child without parents and without parental care, who is not protected based on the right to placement, who has no income on the basis of property and property rights and does not earn any funds pursuant to other regulations, but maximum until they reach 18 years of age.
EXTRA-INSTITUTIONAL PROTECTION	
Placement in a foster family	This form of protection is applied if it is established that the child / person due to personal, family or residential status needs to be placed in a foster family that has adequate conditions for his/her growth and development and for satisfying the individual needs.

Right to organised living with support	Care and permanent or temporary assistance is provided by professionals or other persons in meeting the basic life needs, social, work, cultural, recreational and other needs.
INSTITUTIONAL PROTECTION	
Right to placement in an institution for social protection	Right to placement in an institution for social protection is granted to: • a child without parents and a child without parental care until enabled for an independent life and work, but at the latest until completing secondary education, unless there are possibilities for the upbringing and education to be provided otherwise; • a child with educational and social problems, a neglected, abused and materially deprived child, and a child victim of domestic violence; • a child with disorderly conduct.

Source: National Strategy for Reduction of Poverty and Social Exclusion in the country 2010-2020; National Programme for Development of Social Protection 2011-2021, National Strategy for Deinstitutionalisation 2008-2018, Law on Child Protection ("Official Gazette" No.23/13, 12/14, 44/14, 144/14, 10/15, 25/15, 150/15, 192/15, 27/166); Rulebook on the form, content and manner of keeping records of the users of services, and of the services delivered by an agency providing services for upbringing and care of preschool children ("Official Gazette of RM" No.61/13); Law on Social Protection ("Official Gazette " No.79/09, 36/11, 51/11, 166/12, 15/13, 79/13, 164/13, 187/13, 38/14, 44/14, 116/14, 180/14, 33/15, 72/15, 04/15, 150/15, 173/15, 192/15, 30/16).

3. ANALYSIS OF THE COSTS FROM THE BUDGET FOR EDUCATION AND SOCIAL PROTECTION OF CHILDREN

In this section of the study we will analyse the costs for education and for social protection of children allocated from the Budget of the country. First, we will analyse the total allocated funds for this purpose, and then the analysis will focus on the budget spending for programmes for children as an absolute amount and share of the Gross Domestic Product and of the total budget expenditures. The analysis will give an overview of the spending broken down by structure and purpose, and share of implementation of the funds allocated. As data sources for the spending of funds for children's programmes we used: draft and final accounts of the annual budget of the country, the annual budget of the Ministry of Education and Science and the annual budget of the Ministry of Labour and Social Policy, for the period 2010-2018. On the other hand, for the number of children in kindergartens, number of pupils and teachers in primary and secondary schools, and the number of institutions per municipality, as data source, we used the statistics for education of the State Statistical Office.

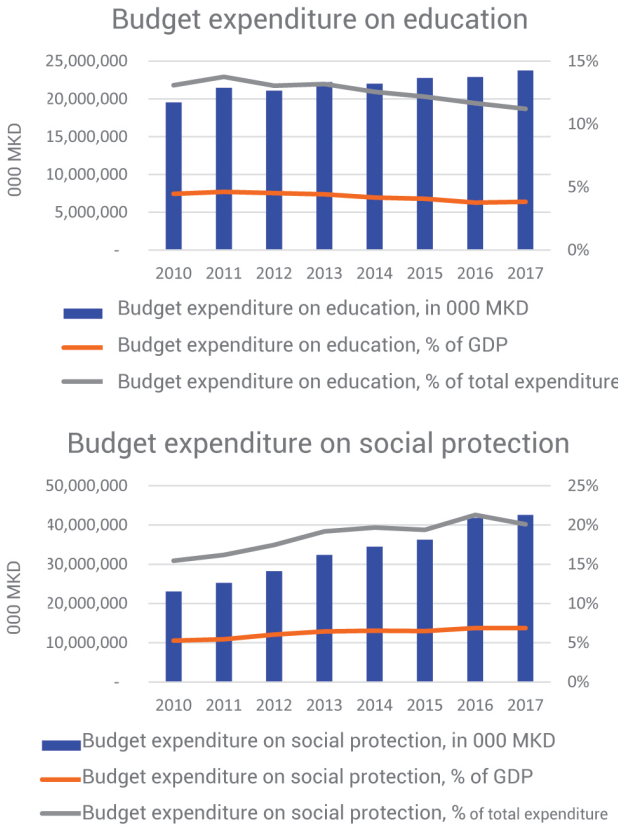
3.1.Total allocated budget funds for education and for social protection

The budget funds for education allocated through the Ministry of Education and Science are intended for programmes for primary, secondary and higher education, pupil standard, science, administrative costs for employees and for wages of the teaching staff, but also for specific projects and capital infrastructure investments in education. The budget funds for social protection are, mainly, allocated through the budget of the Ministry of Labour and Social Policy, for implementation of programmes and measures for social and child protection, various social benefits, support of social funds, wages of the administration and for expert staff recruited in the social work centres, normal functioning of kindergartens, capital investments and for different projects and measures for improving the standard of living and for poverty reduction.

Graph 4 shows the total funds allocated for education (above) and for social protection (below), for the period from 2010 up to 2018. The total expenditures for education in absolute amount note an upward trend in the analysed period, and in 2018 they reached MKD 25,179 million or EUR 409 million, which is a 29 percent rise compared to 2010. However, analysed according to the relative share of the Gross Domestic Product, government expenditure on education decreases in the same period from 4.5 percent of GDP in 2010 to 3.8 percent in 2018. As a comparison, in 2014, in the European Union, these costs were 5.3 percent, in the highly developed countries 5.2 percent, and in countries with medium income level 4.1 percent (data from the World Bank). This indicates that the state investments in education do not follow the economic development despite the identified link in literature and return impact of education on economic growth. At the same time, budget spending on education as a share of the total budget expenditure declined from 13.1 percent in 2010 to 11.2 percent in 2018, which is a decline of almost two percentage points. These allocations are comparable to the allocations of the European Union (11.6 percent in 2014), which are below the average level of the highly developed countries (13.2 percent) and of the countries with medium income level (14.8 percent in 2013) (data from the World Bank). Even though the investments in education are one tenth of the total expenditure, the trend of reducing the share in total expenditure potentially shows that the investments in education are not perceived as a priority and a strategic investment.

Expenditures for social protection are almost two times higher than those for education. For the period from 2010 until 2018, these expenditures noted a rise of 89 percent, i.e. they doubled in less than ten

Graph 4 – Total budget funds allocated for education and for social protection, total in thousand MKD, as a share of GDP and as a share of the total expenditure, 2010-2017



Source: Ministry of Finance: State Budget 2010-2017, State Statistical Office.

years. Nevertheless, two thirds of these expenditures are costs for the social funds and transaction costs for the pension reform. Unlike the budget expenditure in education, this rise was also reflected in the relative indicators as a share of GDP and of the total expenditure. Thus, the social protection expenditure, as a share of GDP and of the total expenditure, increased by 30 percent, and in 2018 accounts for 20 percent of the total expenditure and for seven percent of GDP. There is a rise in almost all items for social protection, but the most significant share belongs to the rise in expenditure for the social funds and the item for administration.

3.2. Budget funds allocated for education and for social protection to programmes for children in education and in social protection

Now we move on to analysing the budget funds for children's programmes.

Graph 5 shows the budget funds allocated to programmes for children in education and for social protection, in absolute amount and as share of the total expenditure for the period from 2010 to 2018. The total expenditure for programmes for children include allocations for: the child protection programme, which includes the institutions for child protection and construction, equipment and maintenance of the child protection facilities; the programme for allowances and right to social protection includes the total allowance for child protection measures and a portion of the social protection allowance, estimated as a portion that goes to families with children; the social protection programme covers some of the funds allocated to day-care centres and shelters for extra-institutional social protection for placement in a small group home and for placement in a family, estimated according to the share of children in the total population; and block-transfers from the municipalities for child protection. The total budget funds allocated to programmes for children in 2018 are MKD 22,976 million, or EUR 374 million, and note an absolute rise by 42 percent compared to 2010. However, as a share of GDP, the allocations to programmes for children are in decline and in 2017 they accounted for only 3.5 percent, while the share in the total expenditure stagnates and in 2017 it was 10.2 percent.

Analysed according to the structure of allocated expenditure, we notice that the education programmes are dominant and account for 75 percent of the total expenditure. Although the total expenditures for social protection are almost two times higher than the total expenditures for education, only 25 percent of them concern programmes for children. This is not a surprise, given that the social expenditures concern all segments of the population, while those for education concern mainly the young population. On the other hand, the allocations for social protection of children have a six times higher rise (133 percent) than the allocations for education programmes (26 percent) in 2018 compared to 2010. Therefore, the budget expenditures for education programmes for children note a relative decline as share of the total

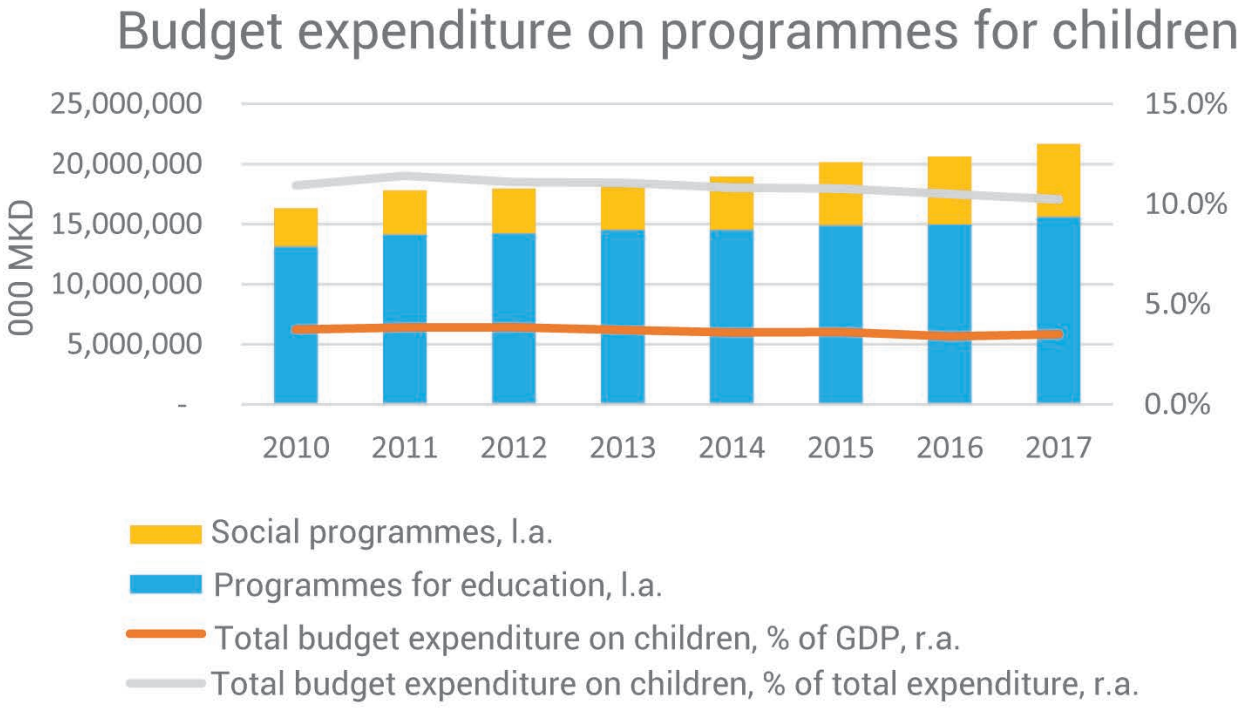
expenditure and stagnation as a share of GDP, while the budget expenditures allocated for social protection of children, although modest (only 2.9 percent of the total expenditure and 0.97 percent of GDP in 2018), note a relative increase.

Graph 6 shows the structure of the budget funds allocated to programmes for children in education in 2010 and in 2018. The teaching staff wages and the material costs for the primary and secondary schools, paid through block and earmarked grants are dominant budget expenditures, accounting for 79.5 percent in 2010 and 83.4 percent in 2018 of the total funds allocated for education of children. Allocations for projects and the implementation of various policies in primary education, but also the funds for international primary education, account for 9.4 percent of the expenditure on education for children in 2010 and they decline to 5.9 in 2018. Primarily, the increased share of the expenditure for wages and of the material costs at the expense of the decreased expenditure for primary education is due to the decentralisation process. From 2012, in 83 municipalities and in the City of Skopje, the transferred competences in education are financed by block grants.

Funds allocated for secondary education account for 4.4 percent in the total expenditure for programmes for children and their share remains unchanged. The funds allocated for pupil standard account for 2.2 percent in 2010 and have an insignificant increase in the share to 2.5 percent in 2018. Investments in capital projects and in infrastructure for children's education are only 4.4 percent of the total expenditure for programmes for children in 2010 and note an additional decline to 3.8 percent in 2018. Almost one half of these funds are used for construction and reconstruction of school and sport halls in primary and secondary schools, one third is intended for construction, reconstruction and modernisation of primary schools and a smaller portion for secondary schools. In general, there are no significant changes in the structure of infrastructure investments from 2010 until 2018, except for the investments for reconstruction of student dormitories in 2018.

Graph 7 shows the structure of the budget funds allocated for social protection of children per programmes in 2010 and in 2018. Almost two thirds of the funds are

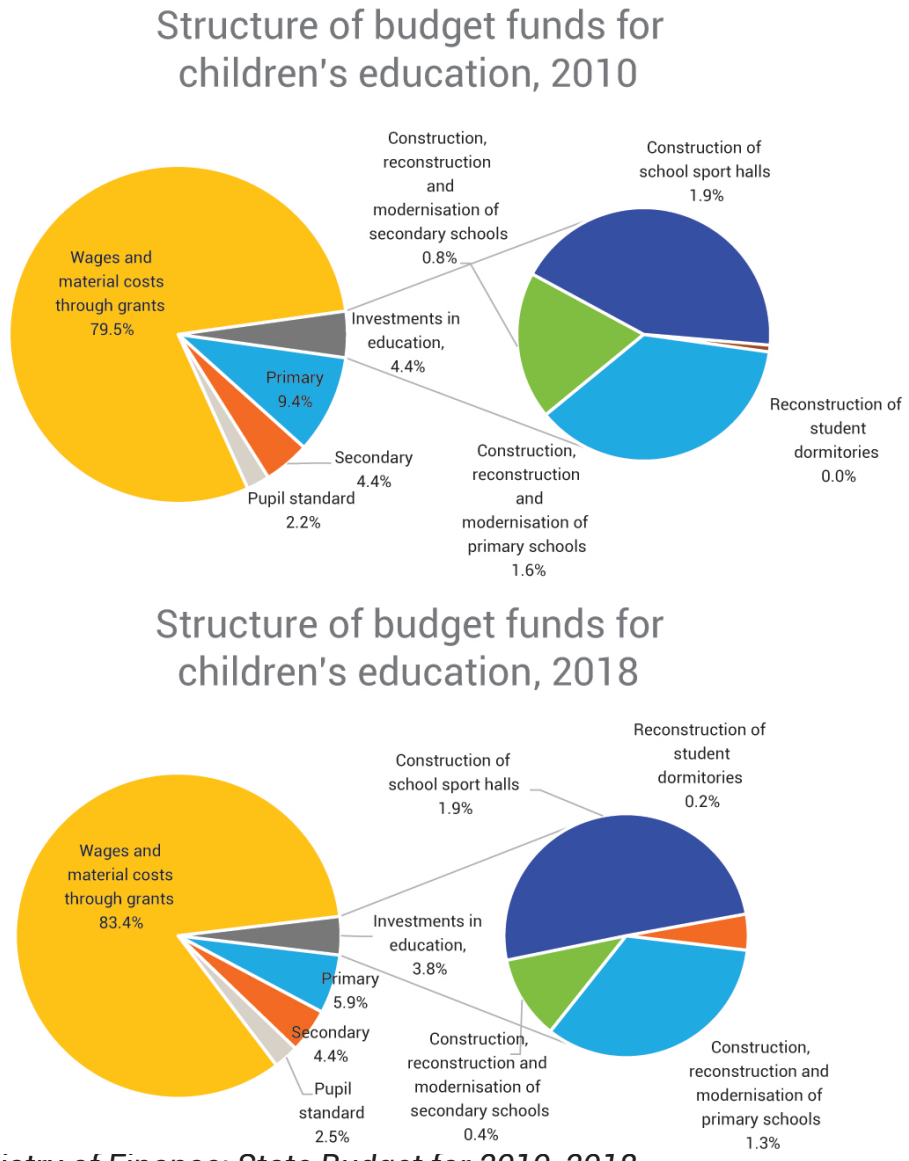
Graph 5 – Budget funds allocated to programmes for children in education and for social protection, total in thousand MKD, as a share of GDP and as a share of the total expenditure, 2010-2018



Source: Ministry of Finance: State Budget for 2010-2018

intended for allowance for social and child protection. In 2010, the allowance for child protection accounted for 31.7 percent of the total expenditures allocated and it rose to 55 percent in 2018, mainly at the expense of the allowance for social protection, which from 26.8 percent in 2010 decreased to 16.9 percent in 2018. The wages of staff in kindergartens and the material costs for kindergartens, allocated through block grants, account for 34.8 percent in 2010 and their share in the total funds declined to 23.8 percent in 2018. In absolute amount, all three dominant items (social protection allowance, wages and material costs, and child protection allowance) note an upward trend in the analysed period. However, the child protection allowance has the highest growth intensity - it increased more than three times, compared to the 39 percent rise in wages and 28 percent rise in the social protection allowance, which made its share in the expenditure structure dominant. This rise is most likely due to the introduction of measures for parental allowance for a third and fourth child, which began to be implemented as of 2009, and the costs for this purpose grew each following year. Other programmes for child and social protection account for only 6.6 percent in the total funds allocated in 2010, and this share additionally decreased to 3.9 percent in 2018. This item includes funds allocated for child protection institutions; construction, equipment and maintenance of child protection facilities, day-care centres and shelters for extra-institutional social protection, conditional cash transfers

Graph 6 – Structure of budget funds per programmes for children in education in 2010 compared to 2018

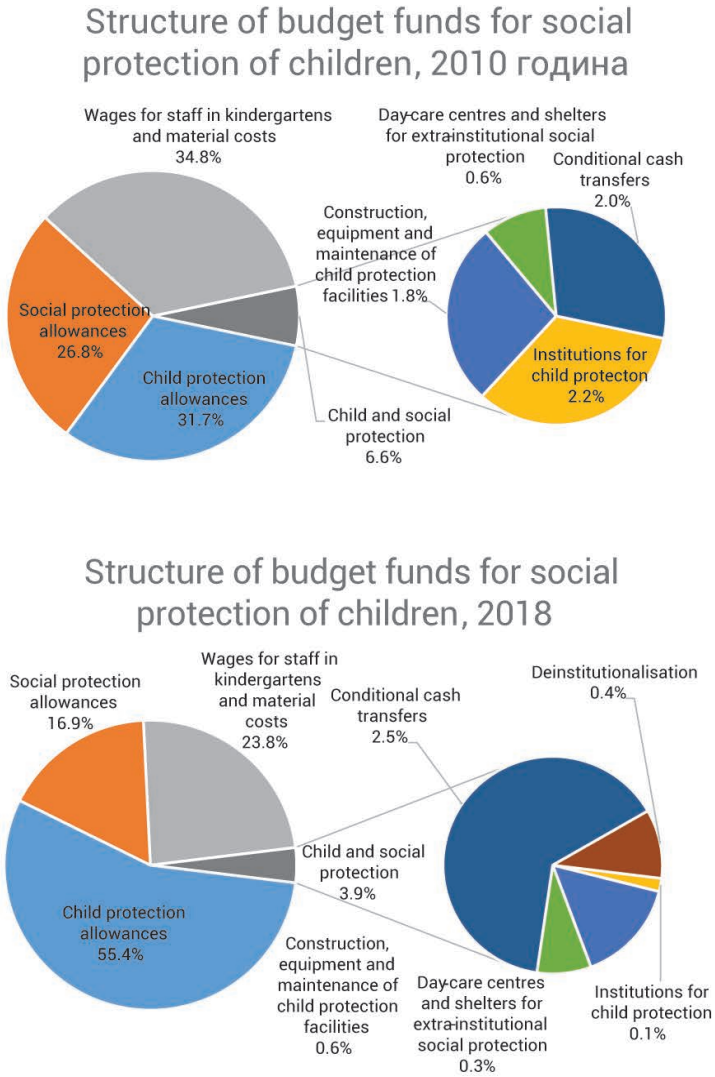


Source: Ministry of Finance: State Budget for 2010-2018

and deinstitutionalisation. In the analysed period, there are no significant changes in these programmes, except for the decrease in the share of costs for construction, equipment and maintenance of child protection facilities and of child protection institutions.

In conclusion, it is evident that the total funds allocated to programmes for social protection of children doubled in the analysed period, in absolute amount. But this increase is mainly driven by several measures introduced in the part relating to the child protection allowance, and a slighter increase in the wages and in the social allowance. On the other hand, the investments in child protection facilities and institutions, which are infrastructure investments, mainly, stagnate.

Graph 7 – Budget funds allocated for social protection of children and structure per programmes



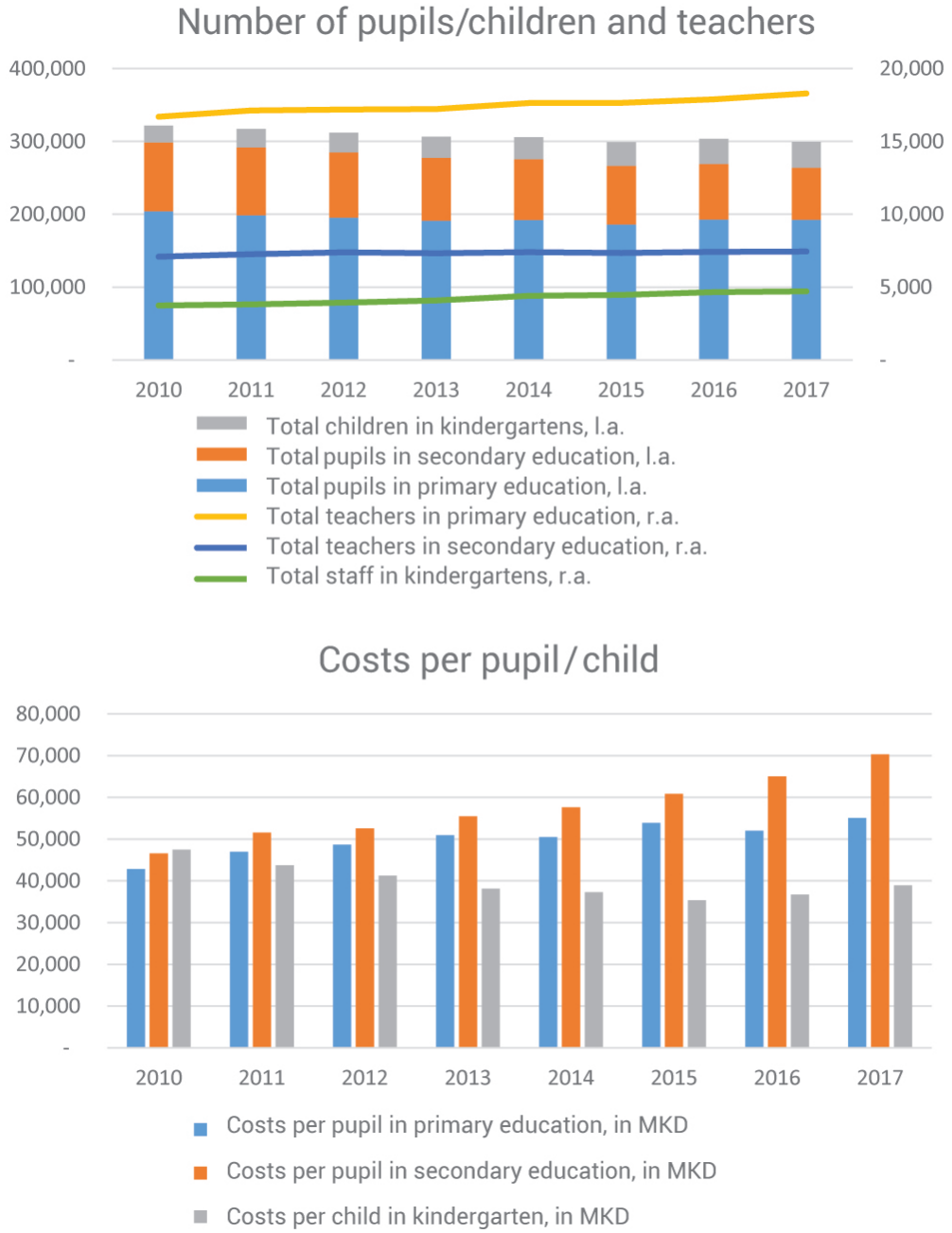
Source: Ministry of Finance: State Budget for 2010-2018
** the costs distributed through social protection allowances (e.g. social assistance) and the costs for placement in a small group home and placement in a family have been estimated according to the share of children in the total population.*

3.3. Distribution of costs for preschool, primary and secondary education per municipalities

In addition to the budget funds allocated to programmes for children, the efficiency in the use of funds is also an important indicator. To that end, we make an analysis of the cost per user, defined as a pupil in primary and in secondary education and a child in kindergarten, and at the same time, we analyse the number of service providers, teachers, as one of the parameters for the movement of costs.

In 2017, there was a total of 192,448 pupils registered in primary education, 71,458 pupils in secondary education, and 35,286 children in kindergartens (Graph 8). The number of pupils in primary and secondary education has a downward trend, which mainly reflects the demographic trends caused by the changes in the family structure and migration movements. The decrease is more significant in pupils from secondary education (on average, four percent annually), compared to pupils in primary education (on average, one percent annually). At the same time, the number

Graph 8 – Number of pupils / children and of teachers (graph above) and costs per user (graph below)

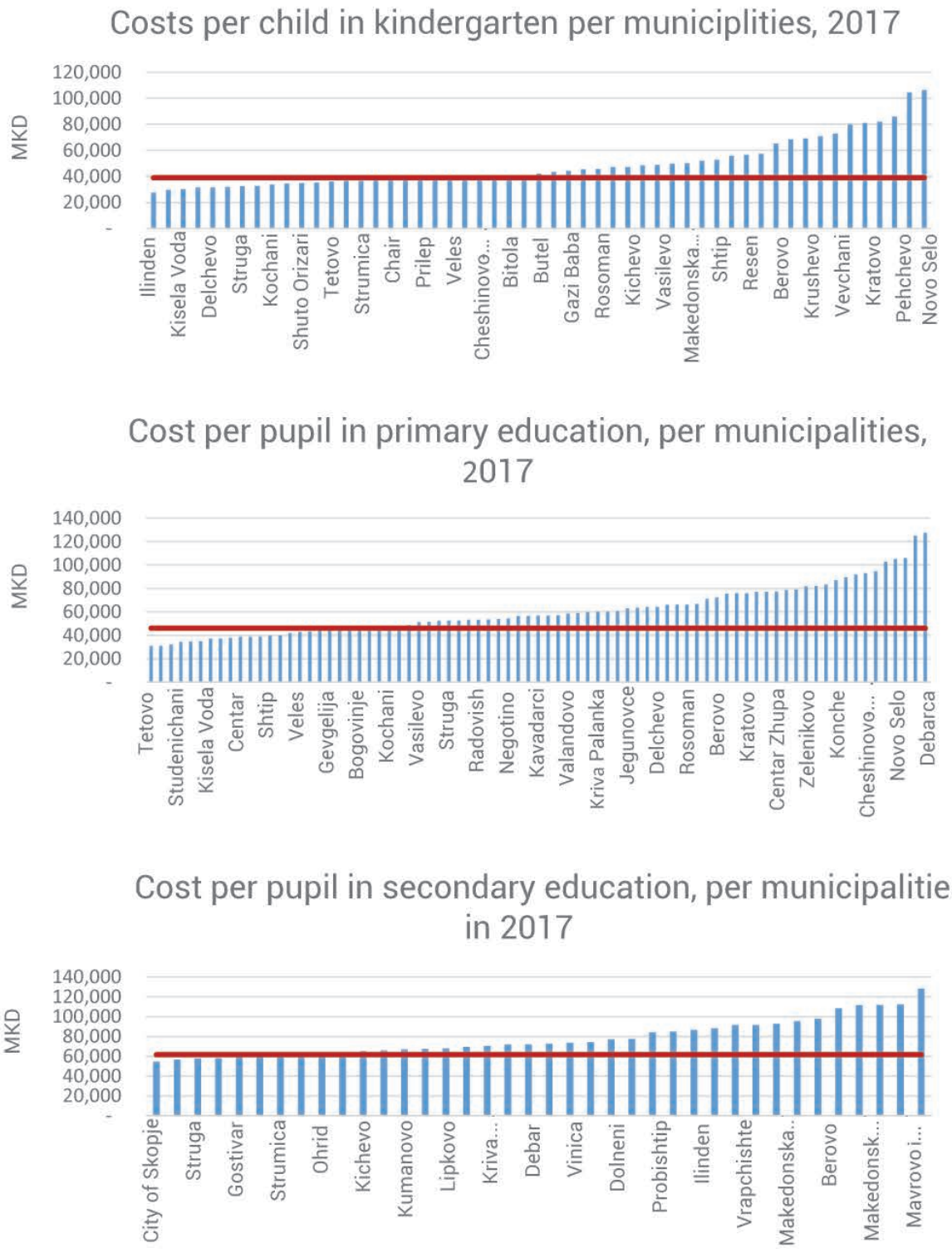


Source: Ministry of Finance: State Budget for 2017; State Statistical Office

of children in kindergartens notes an increase, on average, six percent annually, but at a slower pace in 2016 and in 2017 (five percent and three percent per year, respectively). However, the increase in the number of children in kindergartens reflects the increase in the capacities and the awareness of institutional preschool education.

Contrary to the decrease in the number

Graph 9 – Cost per child and per pupil in preschool, primary and secondary education, per municipalities in 2017



Source: Ministry of Finance: State Budget for 2017; State Statistical Office

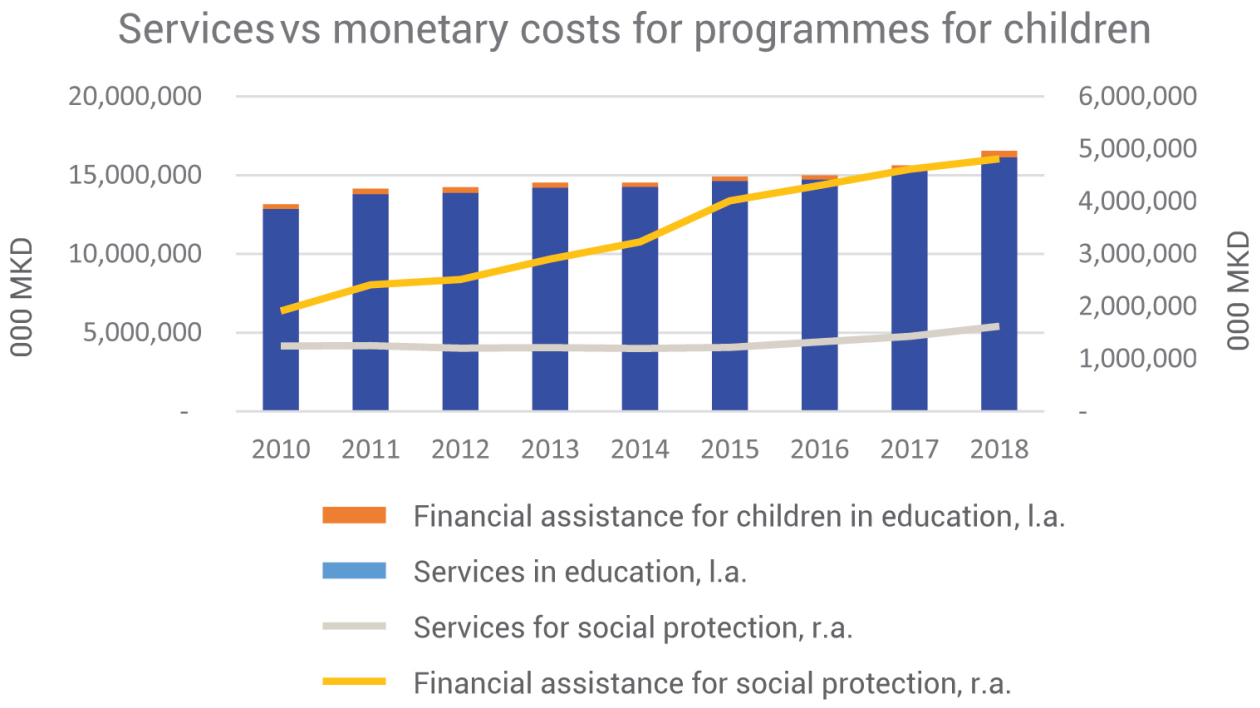
of pupils, the number of teachers in primary and secondary education notes an increase, and this is also true of the staff number in kindergartens. According to this trend, the cost per pupil in 2017, compared to 2010, increased by 28 percent in primary education and by 51 percent in secondary education, while the cost per child in kindergarten decreased by 18 percent. In 2017, the average cost per user reached MKD 38,935 for a child in kindergarten, MKD 55,083 for a pupil in primary education and MKD 70,293 for a pupil in secondary education.

However, analysed according to the block grants per municipalities (intended for wages and material costs in schools / kindergartens) and the number of pupils in the municipalities, there are dramatic differences in the costs per pupil / child per municipality (Graph 9). Thus, the cost per child in kindergarten ranges from MKD 27,612 in the Municipality of Ilinden to MKD 104,491 in the Municipality of Novo Selo, which is a difference of 3.8 times. There are similar differences in the costs per pupil in primary education, ranging from MKD 30,899 in the Municipality of Tetovo to MKD 127,382 in the Municipality of Debarca, or a ratio of 4.1. Somewhat smaller differences appear in the cost per pupil in secondary education, ranging from MKD 54,470 in City of Skopje to MKD 128,032 in Centar Zhupa. This is potentially due to the rationalisation of the secondary schools' set-up in accordance with the municipality size and the number of pupils, which cannot be done always in primary schools. Given that the number of primary schools cannot be always decreased, we need to think about rationalisation of the number of teachers according to the number of pupils and, where possible, to join together those regional primary schools with a very small number of pupils.

3.4. Budget funds given as services compared to monetary forms for programmes for children

The costs for programmes for children can be made in the form of direct financial assistance for children and families with children (different forms of allowance) or in the form of services provided through the institutions (construction and maintenance of kindergartens, schools and institutions

Graph 10 – Services versus monetary forms for programmes for children in education and in social protection, 2010-2018



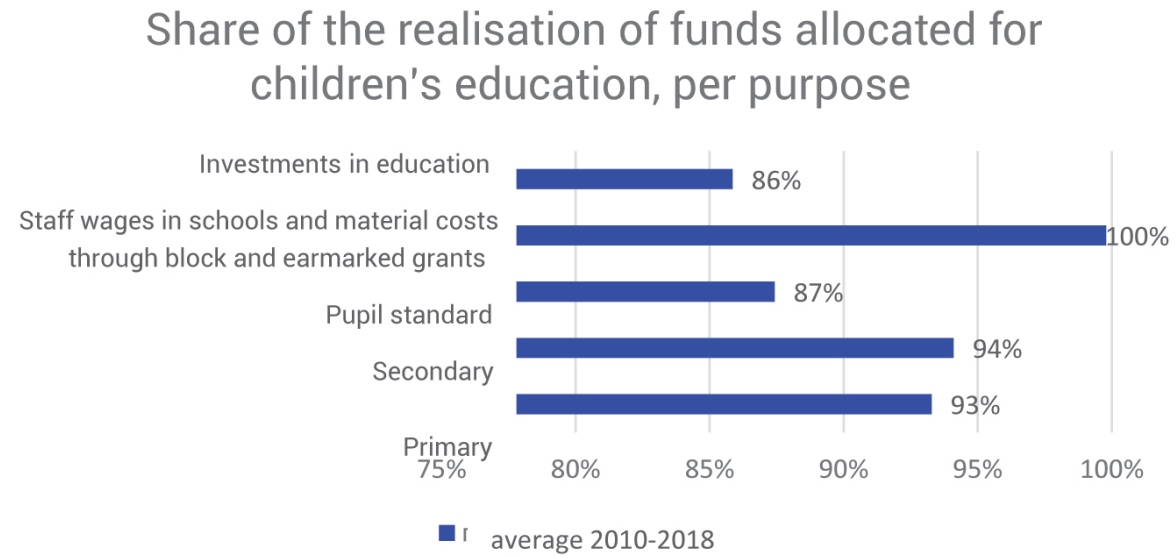
Source: Ministry of Finance: State Budget for 2010-2018

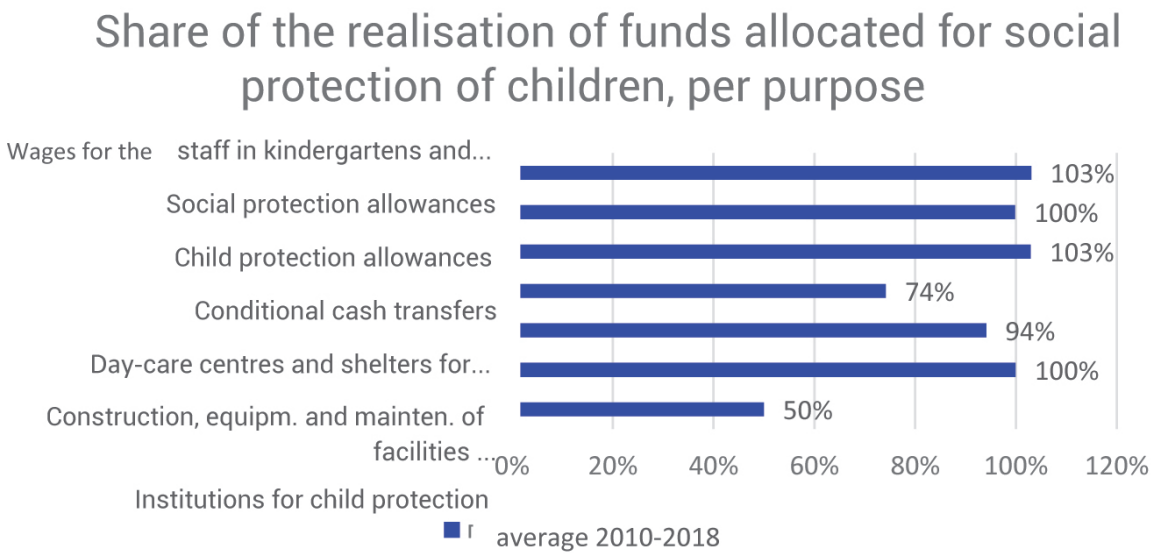
for care and wages of the staff delivering the service). Graph 10 shows the form of the funds allocated in programmes for education and social protection of children. As expected, funds intended for children's education are mainly delivered in the form of services (over 95 percent), and only an insignificant part in monetary form, mainly, through scholarships and costs for pupil standard. On the other hand, in the programmes for social protection of children, more than two thirds of the funds are in monetary form. This structure is expected considering the purpose of the programmes and the manner in which that purpose is achieved. Thus, in education programmes, the purpose for better quality in education is achieved, mainly, through the teaching staff and infrastructure, so it is expected that the main investment would be in the teaching staff wages. While in social programmes, the purpose of improving the standard of living for children is mainly achieved through a monetary compensation, or through a direct intervention in the budget of their family.

3.5. Realisation of the funds allocated to programmes for children

The realisation of the funds allocated to programmes for children in education and social protection are shown in Graph 11. In both categories, the level of funds realisation is high, over 95 percent. The percentage of realisation is expected, given that these are payments guaranteed by law, a collective or individual agreement (for instance, teachers wages, or social allowances). However, there are differences in the realisation according to the purpose. In both categories, the staff wages and material costs have been fully used, in the social protection programmes there is even an insignificantly higher realisation of funds from the budget. There is also a complete realisation in the programmes for allowances for child and social protection, but also for construction and maintenance of child protection facilities. In other programmes, we identified an incomplete realisation of the funds allocated, mainly, in programmes involving an investment component. More significant deviations are noted in the capital investments in education and child protection institutions. The incomplete realisation is also noted in programmes for pupil standard and for conditional cash transfers.

Graph 11 – Realisation of the funds allocated to programmes for education and for social protection of children, per purpose, average for 2010-2018





Source: Ministry of Finance: State Budget for 2010-2018

4. POTENTIAL EFFECTS OF THE PUBLIC SPENDING IN PROGRAMMES FOR CHILDREN

This section of the study makes an initial attempt to assess the potential effects of the budget spending on children over some important outcomes. We call the analysis presented here an "initial attempt" because, as it will become clear in the sections to follow, there is an evident lack of data or very little data is available for this type of analyses. Hence, to the extent possible at this point, we address the potential link between budget spending and two important outcomes related to children: the incidence attending preschool education; and the grades in secondary education.

4.1. Analysis of the link between budget spending and the incidence of attending kindergarten

The initial thesis in this section is that increased spending on childcare will more likely result in a greater number of children at a kindergarten age (from one to five years) attending kindergartens. The spending is related to the quantity and quality of childcare. On a quantitative level, greater spending implies greater care capacities and/or a higher staff number for childcare. On a qualitative level, greater spending means that the conditions for childcare – such as more time that one teacher could spend witch each child, type and scope of the learning tools and devices that the teacher could use etc. – potentially result in better desirable outcomes from the childcare in kindergartens. The existing literature (for instance, Buechel and Spiess, 2002; Djurdjevic, 2005) shows that the existence of adequate infrastructure for childcare is associated with a greater probability that the child will attend kindergarten, and the mother will return to the labour market.
The decision whether a child will attend kindergarten, of course, does not depend only on the quality of childcare services, which is linked to the budget spending. The literature identifies many other factors (Peyton, Jacobs, O'Brien, and Roy, 2001). Primarily, these factors are related to the mother: her level of education and relation with the labour market. For instance, Kreyenfeld (2004) finds than children, whose mothers have a higher educational background have a higher probability to attend kindergarten. Similarly, Coneus, Goeggel, and Muehler (2007) find that children from mothers participating in the labour market have a higher probability to attend kindergarten. Spiess, Buechel, and Frick (2002) emphasise the socio-economic factors, such as the family structure (number of children in the family) and the family's wellbeing (for instance, where the family is located on the income scale). The same study underlines also the children's age, where it is expected that the older children in the age cohort 1-5 have a higher probability to attend kindergarten. This also refers to other characteristics, such as ethnic background, race, etc.
On the basis of this brief overview of the literature established on this topic, we will calculate a probit equation with several endogenous regressors to assess the chance that a given child will attend kindergarten. We describe the selection problem through the following model:

$$y^*_i = \beta_0 + \beta_1 spending_j + \sum \gamma_k personal_i + \sum \delta_k mother_i + \sum \mu_k father_i + \sum \sigma_k family_i + \varepsilon_i \quad (1)$$

$$Y = \begin{cases} 1 \; if \; y^* > 0 \\ 0 \; if \; y^* \leq 0 \end{cases} \quad (2)$$

The variable Y is the participation in childcare taking a value of 1 if the child attends kindergarten, and 0 if not. The latent (invisible) uninterrupted variable y^* is the number of hours that the child spends in institutional care, and which are usually determined by the parents, or by the mother. The other determinants in equation (1) are divided into: personal ($personal_i$), characteristics of the mother ($mother_i$), of the father ($father_i$), of the family ($family_i$) and, of course, the variable of our greatest interest in this study – the government spending ($spending_j$).

The personal characteristics are the age (years), sex and ethnic background of the child. The characteristics of the mother and father include age (years), level of education (on a scale from 1 to 9, where 1 is without education, and 9 is for a PhD) and inactivity on the labour market (value of 1 when the person is inactive and 0 otherwise). The family characteristics include an income group (per quantiles from 1 to 5) and whether the same household includes a grandmother and a grandfather. The second family characteristic is particularly important in our culture where it is still believed that the care provided by the grandparents is better than the institutional care (which is also a debatable point in literature). All of these characteristics have an index i because they refer to each child.
These variables were taken from the Quality of Life Survey 2017 by Finance Think, which was conducted by using a random sample of 1,200 households and 4,071 individuals. The survey is a rich set of data about different aspect of the life of the individuals and their households.
The variable of our interest, the spending, is given on a municipal level because it is the most broken-down level of data that we have available. Hence, this variable has an index j, which refers to each municipality. We took this data from the State Budget, specifically the block grants for child protection, which the Ministry of Labour and Social Policy transfers to the local self-government units – the municipalities. The Quality of Life Survey covers 43 municipalities, which is around one half of the total number of municipalities in the country. Considering that the sample is randomly selected, we assume that the selection of the municipalities covered is not biased. Therefore, we cross-reference the data from the Budget with our Survey. We initially included the block grants for each municipality in their logarithmic form. However, the block grant size is, naturally, associated with the size of the child protection infrastructure. For instance, the number of kindergartens in the Municipality of Centar and that in the Municipality of Konche will determine that the first municipality will receive a higher amount of block grants than the latter. To control this, from the very beginning of the regression, in addition to the spending logarithm, we also include the staff number in the child protection system per municipality. On the other hand, in the last regression to be calculated, we will include two more additional controls: number of residents in the municipality so as to reflect the fact that it is more likely to have more kindergartens in the bigger municipalities (it will cover this or a very similar variation as well as the staff number) and in urban places compared to rural places.
We use a probit estimate for equation (1). We inform on the marginal effects.
The results are given in Table 3. We add the determinants group by group; thus, our most complete regression is given in column (6). The variable of interest is given at the top of the table (highlighted in grey). Bigger spending on childcare is unequivocally associated with a higher probability of attending kindergarten. The increase in the spending for childcare by one percent, with a given staff number in the care for children, on average, results in around five percent higher probability that some child will attend kindergarten. So, if the budget spending for this purpose is increased by 10 percent, then the probability for attending kindergarten increases by high 50 percent. This seems to confirm the thesis advanced in the literature, according to which for the parents and, particularly, for the mother, it is especially important to perceive that there is adequate infrastructure for childcare to decide to give their child in institutional care. In this context, we note that this finding is particularly stable when adding other determinants.

The other determinants have the expected signs and some of them are statistically significant. In accordance with the projections in literature, the probability for attending kindergarten increases as the child's age increases, although the coefficient is not particularly high. Each additional year of the child brings a higher probability of attending kindergarten from nine to 10 percent. The sex of the child plays no role. But, the findings on the ethnic background are interesting. We have presented the results for ethnic Macedonians and the other ethnic groups (Turks, Serbs, Roma etc.) compared to the referent

Table 3 – Results for the determinants of attending kindergarten

Dependent variable: Probability that the child will attend kindergarten						
	(1)	(2)	(3)	(4)	(5)	(6)
Logarithm of block grants for childcare	0.033*	0.050***	0.051***	0.057***	0.058***	0.048**
	(0.020)	(0.018)	(0.018)	(0.021)	(0.,021)	(0.021)
Staff number in childcare	0.005	-0.108	-0.093	-0.097	-0.098	-0.147*
	(0.066)	(0.071)	(0.070)	(0.068)	(0.068)	(0.080)
Age of the child		0.099***	0.090***	0.088***	0.088***	0.087***
		(0.024)	(0.025)	(0.025)	(0.025)	(0.026)
Sex of the child (1 = male)		-0.021	-0.003	-0.023	-0.023	-0.003
		(0.066)	(0.067)	(0.067)	(0.067)	(0.068)
Ethnicity (1 = Macedonian)		0.292**	0.276***	0.236***	0.234***	0.242***
		(0.077)	(0.079)	(0.081)	(0.081)	(0.085)
Ethnicity (1 = Other)		0.039	0.123	0.352***	0.355***	0.341**
		(0.103)	(0.120)	(0.132)	(0.134)	(0.143)
Age of the father			0.004	0.001	0.001	0.006
			(0.006)	(0.010)	(0.009)	(0.009)
Education of the father			0.045**	-0.011	-0.011	-0.006
			(0.022)	(0.029)	(0.029)	(0.029)
The father is inactive			0.09	0.17	0.169	0.176
			(0.236)	(0.236)	(0.237)	(0.247)
Age of the mother				0.008	0.008	0.004
				(0.010)	(0.010)	(0.010)
Education of the mother				0.084***	0.086***	0.079**
				(0.031)	(0.032)	(0.033)
The mother is inactive				-0.134**	-0.136**	-0.139**
				(0.067)	(0.067)	(0.065)
Quantile income group					-0.007	-0.005
					(0.029)	(0.029)
The household has a grandmother and a grandfather					-0.012	-0.023
					(0.076)	(0.075)
Number of residents in the municipality						0.002
						(0.001)
The household is in an urban place						0.089
						(0.069)
Coefficient of determination	0.0186	0.135	0.152	0.208	0.209	0.2

Source: Authors' estimations.

****, ** and *** refer to statistical significance at the 10, 5 and 1 percent level of significance, respectively. Standard errors are given in parentheses. Standard errors are stable to arbitrary heteroskedasticity.***

category of ethnic Albanians. Children of ethnic Macedonian background have a higher probability to attend kindergarten from 23 to 29 percent, compared to ethnic Albanians. This finding is particularly indicative since it may include two other components: 1) the impact of culture, perceptions, stereotypes and prejudices regarding childcare, which may differ in the two largest ethnic groups; and 2) the fact that the majority of kindergartens have teaching staff who speak only Macedonian language. Hence, this aspect requires further in-debt research.

The characteristics of the father are mainly insignificant about whether the child will attend kindergarten, but the characteristics of the mother are particularly important and in line with the theoretical directions. The higher the education of the mother, the higher the probability that her child will attend kindergarten. Mothers who are inactive on the labour market have a lower probability of sending the child in kindergarten by 14 percent compared to mothers who are in employment or who are active job seekers.

Interestingly, the household income does not play any role as to whether the child will attend kindergarten. This is associated with the fact that childcare is mainly of public nature, or that the participation paid by parents is manly tolerable for the family budget. Also, living with the grandparents in the same household, contrary to the widespread perception, does not play any role as to whether the child will attend kindergarten or not. Finally, adding the number of inhabitants in the municipality and considering whether the place is an urban or rural one, does not change the previous findings, which points to their stability.

In conclusion, two groups of factors are particularly important in determining the probability of attending kindergarten. Namely, the incidence of attending kindergarten increases with the increase in the public resources spent for this purpose and with certain decisions of the mother, which are mainly related to her education and labour-market activity. From a structural aspect, there is a difference in the kindergarten attendance between the children of ethnic Macedonians and those of ethnic Albanians, which is probably driven by the difference in perceptions, culture and stereotypes concerning the upbringing of children.

4.2. Does budget spending result in better school results for secondary school pupils from poor families?

In line with the current data available, we will present another analysis on the potential effects of the budget spending. In this section, the analysis concerns the results in secondary school pupils from poor families. Namely, we use the Survey on Macedonian Households, conducted by the Ministry of Labour and Social Policy, within a World Bank project. The original purpose of this data collection was the impact analysis for the introduction of conditional cash transfers through a randomized experiment; see more in Armand et al. (2016). For this brief analysis, the concerned parties gave us an oral approval to use the data. The data set covers 510 secondary school pupils in 2012, all from poor families, beneficiaries of social financial assistance and/or child allowance. Therefore, the findings from the analysis are limited only in this segment of the income distribution.

The thesis in this analysis is that the higher budget spending in (secondary) education could improve pupils' performance in the educational process. The database mentioned above does not cover data on budget spending, hence we cross-referenced it with the data on block grants in secondary education from the Budget of RM (in the same manner as in Section 4.1). In this case, we covered all municipalities in the base, but not all municipalities have secondary schools. Therefore, we assume that the pupils are attending secondary school in the nearest municipality that has a secondary school. This assumption is not always true, but in the absence of a variable that would enable us to perform a different cross-referencing of pupils with municipalities, we continue having that in mind. Note that the data on block grants are available on the level of the City of Skopje (and not for the individual municipalities in the city), which makes the analysis easier because the transitions of secondary school pupils from one municipality to

another are most common in Skopje.

Apart from budget spending, school characteristics of secondary school pupils, naturally, also depend on other factors. The studies from both older and more recent literature (for instance, Dugdale and Chen, 1977; Aturupane et al. 2013; Balcázar et al. 2015) classify the determinants into individual, family and those on school level. The usual individual factors are sex, age, ethnic background, parents' education, and indicators associated with the child's school activity, such as time spent studying, absence from school and a series of other invisible factors (such as motivation, ambition, etc.). In the context of secondary school pupils from poor families, Balcázar et al. (2015) underlines that a particularly important determinant of inequality of opportunity is the socioeconomic status. Family characteristics could be multiple, namely: household income, size, number of rooms in the home, and the extent of parental involvement in the school life of the secondary school pupil. The third group of factors are those linked to the school, such as teacher-parent relationship, equipment, location, etc.

Our purpose in this section is more limited and that is why we use a limited set of explanatory variables. We describe the school results through the following model:

$$y_i = \beta_0 + \beta_1 spending_j + \sum \gamma_k personal_i + \sum \delta_k mother_i + \sum \mu_k father_i + \sum \sigma_k family_i + \varepsilon_i \quad (3)$$

Variable *y* is the combined (average) result of the secondary school pupil i from the two final tests, rounded up to the next integer, which results in a subordinate variable [1-5]. The other determinants in the equation (1) are divided as in Section 4.1. Personal characteristics include age (years), sex and ethnic background of the pupil. The characteristics of the mother and father include level of education (on a scale from 1 to 14, where 1 is without education, and 14 is for a PhD). The family characteristics

include the income group (per quantiles from 1 to 5) and whether the child lives in an urban or rural environment. All of these characteristics have an index i because they refer to each secondary school pupil.
The variable of our interest, the spending, is given on municipal level, same as previously. Because the block grant size is associated with the size of the secondary education infrastructure, again at the very beginning of the regression, besides the spending logarithm, we also include the staff number in secondary schools per municipality.

We use a subordinate probit estimation for the equation (3). Table 4 presents the results. We add the determinants group by group; thus, our most complete regression is given in column (4). The variable of interest is given at the top of the table (highlighted in grey). Higher spending for secondary education is unequivocally associated with better performance of pupils from poor families. Given that this is a subordinate probit regression, we will break down the coefficient for the individual grades [1-5].

Table 4 – Results for the determinants of secondary school results

Dependent variable: Grade of the secondary school pupil on the two final tests [1-5]				
	(1)	(2)	(3)	(4)
Logarithm of block grants for secondary schools	0.179*	0.220**	0.224**	0,223**
	(0.095)	(0.103)	(0.105)	(0,102)
Staff number in secondary schools	-0.325**	-0.307**	-0.312**	-0.318**
	(0.143)	(0.142)	(0.145)	(0.139)
Sex of the child (1 = female)		-0.244	-0.247	-0.247
		(0.156)	(0.155)	(0.155)
Age of the child		0.063	0.065	0.065
		(0.110)	(0.111)	(0.111)
Ethnicity (1 = Macedonian)		0.362*	0.352*	0.343*
		(0.192)	(0.198)	(0.199)
Ethnicity (1 = Other)		0.183	0.173	0.162
		(0.199)	(0.198)	(0.200)
Education of the father			-0.011	-0.011
			(0.034)	(0.033)
Education of the mother			0.011	0.011
			(0.048)	(0.048)
Quantile income group				-0.011
				(0.062)
The household is in an urban place				0.081
				(0.139)
Observations	510	510	510	508

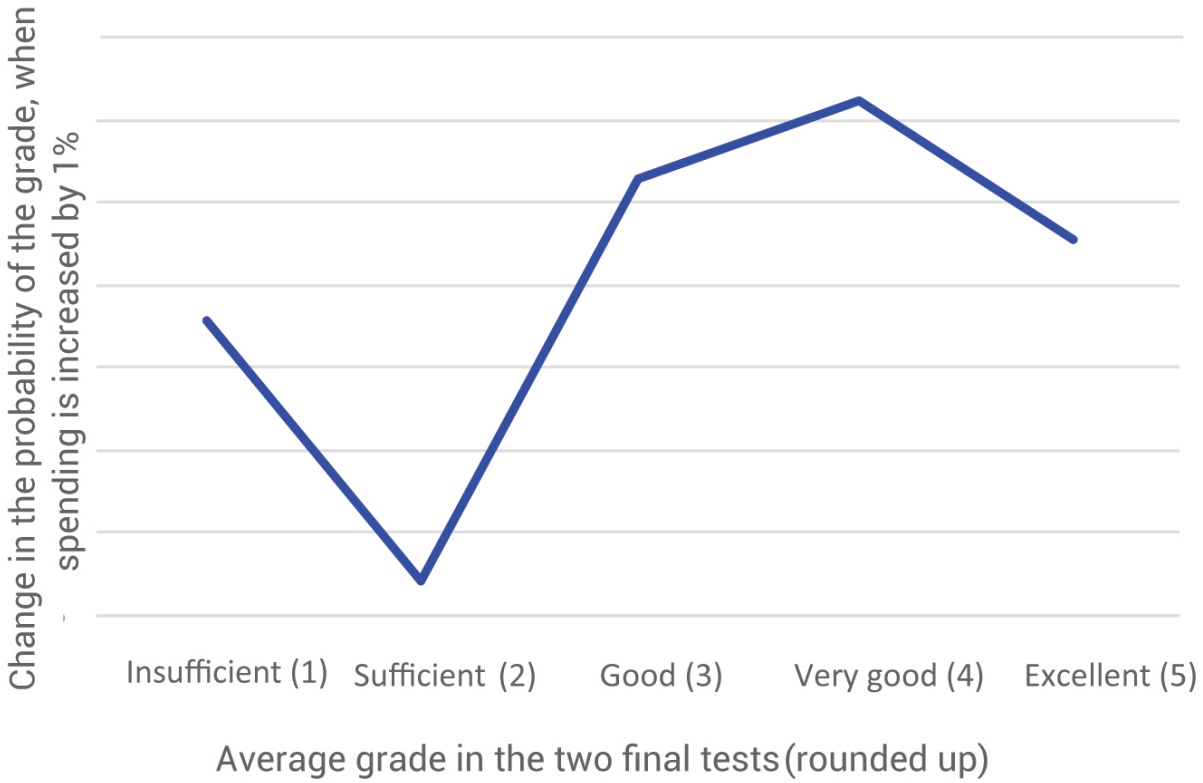
Source: Authors' estimations.
, ** and * refer to statistical significance at the 10, 5 and one percent level of significance, respectively. Standard errors are given in parentheses. Standard errors are stable to arbitrary heteroskedasticity.*

The result is given in Graph 11. The increase in the spending for secondary education by one percent results in decreasing the probability of getting a grade (1) by 0.9 percent, and of getting a grade (2) by 7.1 percent. For the other three grades, such increase in the spending increases the probability by 2.6 percent, 4.5 percent and 1.1 percent. Therefore, the higher spending on secondary education has a tendency to shift the grades distribution in secondary education for children of poor families to the right. This is the most important finding, which confirms our initial thesis that budget spending on secondary education leads to better results.

From the other variables in Table 4, we observe that only the ethnicity is a significant determinant, namely, ethnic Macedonian have a higher probability of getting higher grades compared to ethnic Albanians. All other variables are statistically insignificant.

In conclusion, the increase in public resources spent on secondary education is associated with better performance by secondary school pupils from poor families. The increase in these resources by 10 percent reduces the incidence of getting a grade (2) by 71 percent, and increases the incidence of getting a grade (4) by 45 percent. Both potential effects are particularly substantial, which indicates that proper allocation of public resources is vital to achieve the desired results in children from poor families.

Graph 12 – Change in the probability of getting a specific grade when spending is increased



Source: Authors' estimations.
Note: The individual coefficients estimated are statistically significant at the five percent level of significance.

5. CONCLUSION

This study gives an overview of the spending relating to children, in two main domains of their coverage: social protection and education. It demonstrated that government spending on children notes a downward trend compared to the upward trend of the economy, but also compared to the spending on other segments of the population, such as the elderly (65+), and compared to the interest spending for the public debt.

The programmes for children financed from the State Budget, and which are allocated to the areas of education and social protection, are aimed at achieving two key objectives: improving education quality and inclusiveness and improving the standard of living for children. The total budget funds allocated to programmes for children in 2018 amount to EUR 374 million, but as a share of GDP, they are only 3.5 percent, and as a share of the total government expenditure, they are 10.2 percent. 75 percent are dedicated for educational programmes, and only 25 percent for social protection of children. The dominant allocations in the structure of funds for education are the wages and material costs for primary and secondary schools (with over 79 percent), while in the funds for social programmes, the dominant allocations are for social protection and child protection allowances (over 70 percent). In both categories, the infrastructure investments are marginalised and there are no structural changes throughout the years with a view to improving this situation. In addition, despite the solid realisation of the budget funds allocated, the incomplete realisation, mainly, appears in the infrastructure investments.

In the analysed period, the number of pupils notes a downward trend, while the number of children in kindergartens notes an upward trend. But, at the same time, the number of teachers in primary and secondary education notes an increase, and this is also true of the staff number in kindergartens. According to this trend, the cost per pupil in 2017, compared to 2010, increased; while the cost per child in kindergarten decreased. In 2017, the average cost per user reached MKD 38,935 for a child in kindergarten, MKD 55,083 for a pupil in primary education and MKD 70,293 for a pupil in secondary education. Also, there are significant differences in the costs per pupil / child among the municipalities, which reach a three times higher difference between the municipality with the lowest and that with the highest costs. This situation suggests that the efficiency in the use of funds decreases on the one hand, as a result of the increase in the cost per pupil, and on the other hand, it is not always optimised.

The analysis of the potential link between the budget spending and the children's result shows that the higher budget spending may have an impact on improving children's result. The result may refer to the kindergarten and school attendance, results from the educational process, vital characteristics of the standard of living, such as the incidence of children living in poverty etc. In this policy study, due to the particularly limited data, i.e. databases, having children as its primary target group, we restricted ourselves to preliminary analyses of two outcomes: the probability of attending kindergarten and the result from the educational process in secondary school pupils from poor families. The first analysis was based on the Quality of Life Survey 2017 (Finance Think). The findings suggest that two groups of factors are particularly important in determining the probability of attending kindergarten. Namely, the incidence of attending kindergarten increases with the increase in the public resources spent for this purpose and with certain decisions of the mother, which are mainly related to her education and labour-market activity. From a structural aspect, there is a difference in the kindergarten attendance between the children of ethnic Macedonians and those of ethnic Albanians, which is probably driven by the difference in perceptions, culture and stereotypes concerning the upbringing of children. The second analysis was based on the Macedonian Households Survey (Armand et al. 2016). The results indicate that the increase in public resources spent on secondary education is associated with

better performance by secondary school pupils from poor families. The increase in these resources by 10 percent reduces the incidence of getting a grade (2) by 71 percent, and increases the incidence of getting a grade (4) by 45 percent. Both potential effects are particularly substantial, which indicates that proper allocation of public resources is vital to achieve the desired results in children from poor families.

Hence, the general conclusion from this analysis is that the increase in public spending on education could always be a positive decision. However, this recommendation is too generic. The analysis of the data available in this policy study suggest several specific conclusions:

- The increase in the spending on children should always take into consideration the development versus current component. Although teachers' wages, for instance, could also be considered as a significant development component, still the frequent failure of the investment spending in programmes for children – infrastructure, curricula, devices etc. – indicates that they are treated as of secondary importance by the policy makers or that their planning is not sufficiently precise and adequate.
- The greater rise in the spending in the form of a monetary compensation as opposed to the spending in the form of services points to a populistic component in the decision-making related to these programmes. This is particularly the case with the rapid increase in the child allowance. Although the monetary component is particularly important to pull these children and their families out of poverty, the increase in the allowance should, however, be proportional to the increase in the spending on services because their quality may be particularly important for certain results in children.
- Budget spending on children, although particularly important for improvement of children's results, must be seen together with other indicators for the parents, families in general, school conditions, etc. In this study, we demonstrated at least that the probability to attend kindergarten depends on some characteristics of the mother, primarily the education and labour market activation. This shows that the policies for children must be parallel and in line with the family policies, active labour market policies and education policies in general.

This policy study has one technical recommendation. Namely, to be able to make an in-depth analysis of the budget spending and their effects, and to analyse the policies for children in a broader sense, adequate databases are needed. The existing databases in the State Statistical Office treat this issue in a very limited manner. Essentially, only the Household Consumption Survey and the Income and Living Conditions Survey collect data on all members of the household, but the indicators for children are, mainly, reduced to their education and health status, covered only through several questions that make it difficult to monitor the results in education, health and quality of life, in general. Therefore, the policy makers must think about adequate databases through which the situations and results in children could be analysed.

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