The effectiveness of equity funding in education in Western countries. *Literature review*

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CONTENTS

A BIRD'S EYE PERSPECTIVE

Education is considered to be one of the most effective tools in fighting poverty and facilitating upward social mobility (Leuven et. al., 2007). Accordingly, it is of great importance to ensure that children are receiving equal educational opportunities, irrespective of their socioeconomic status, ethnicity or geographical location (Demeuse, 2012). Since James Coleman's work on equal educational opportunities (1968), many societies have designed policy programmes to tackle educational inequalities, namely 'educational priority policies' (EPPs). These aim to compensate for the educational disadvantages of less privileged populations, and mark society's acknowledgement that students should not be impeded by circumstances outside of their control such as their socioeconomic status, parental education, ethnicity, gender, etc. (Betts and Roemer, 2005; Li, 2010). While students do have some intrinsic characteristics that affect educational outcomes (such as effort, intellectual ability, etc.) (Alexander, 2004; Espinoza, 2007), these are generally not addressed by EPPs.

Educational priority policies consist of two main types: (1) additional funding schemes for schools serving disadvantaged students (or equity funding policies); and (2) priority rules for disadvantaged minorities in enrolment procedures. This study focuses on the first type of policy, 'equity funding policies' (EFP).

There is some scepticism about the effectiveness of equity funding policies (Ooghe, 2011): their impact on the learning progress of disadvantaged students is not always confirmed, which here and there leads to discouragement and calls for budget cutbacks. This is paradoxical in a time of increasing inequalities, and it could have serious consequences for disadvantaged and minority groups, social cohesion, and international economic competitiveness (Demeuse, 2012). For that reason, an international review of studies about the effectiveness of equity funding is urgently needed. Such a review is an opportunity to examine the evidence base, and may help to improve the overall effectiveness of equity funding schemes by identifying the determinants of their success and failure.

Such a review does, however, face some difficulties. First, the focus, nature, and scope of these policies differ widely across education systems, which hinders the making of comparisons and evaluations. Second, the concept of 'equity funding policies' is not defined in the same way in all education systems, and various alternative labels are used to denote these policies, such as 'positive action', 'affirmative action', 'needs-based funding', 'compensatory policies', or 'positive discrimination'. Third, the allocation of school resources and responsibilities — the level of implementation, in other words — at the national, regional and local level differs between countries. Fourth, the target groups of equity funding schemes vary between countries and/or regions. Lastly, there are many contextual elements that may affect the effectiveness of equity funding policies (Demeuse, 2012).

Considering these difficulties, it is important to limit the subject of this review. The following criteria will be used. To begin with, the emphasis will be on *school* funding schemes and exclude *student* financing. Funding schemes for students with disabilities or special educational needs will also be excluded, as most equity funding policies are designed to avoid the use of criteria linked with individual obstacles. In addition, only mainstream preschool, primary and secondary education will be taken into account. Only the education systems of Western countries (i.e. Europe and North-America) will be considered, as education systems in other countries are too dissimilar. Lastly, the review will strictly focus on the overall effectiveness of equity funding policies and their effect on students, parents, teachers and other stakeholders, covering both cognitive and non-cognitive effects.

At least three questions must be addressed when evaluating the effectiveness and efficiency of equity funding: (1) to what extent have policies affected the 'right' groups? (target effectiveness); (2) what have been the effects on educational outcomes? (outcome effectiveness); and (3) has the investment yielded value for money? (efficiency). In the following sections we will attempt to answer these three questions. First, we will provide a definition of 'equity funding policies' and give an overview of the objectives and the criteria used to define target groups. Next, we will review the impact and outcome effectiveness of equity funding, and we will discuss plausible determinants for the observed impact and outcome effectiveness. Finally, we will make some suggestions for policymakers and practitioners, followed by a concluding note.

1.1. Defining the concept of 'equity funding policies'

While several definitions of 'equity priority policies' have been suggested throughout the past few decades, the one introduced by Demeuse (2012) will be used in this article: '*policies designed to have an effect on educationally disadvantaged groups through systems or programmes of focused action (whether the focus be determined according to socioeconomic, ethnic, linguistic, geographic or educational criteria) by offering something more (or 'better' or 'different') to designated populations*'. While this definition refers to the more general concept of 'educational priority policies' (EPPs), we will focus exclusively on one type of EPP, namely, the additional funding schemes for schools serving disadvantaged students, equity funding policies (EFPs). Despite the fact that this broad definition covers the diversity of equity funding schemes between and within the countries examined, an understanding about the various *purposes* of EFPs is generally lacking. Therefore, specifying the objectives and generally acceptable criteria to define the target population and their needs is a fundamental element in evaluating the effectiveness of EFPs. Due to their variety in education systems, and changes in the political, social, cultural and economic context during the past 50 years, EFPs have multiplied (Bernardo and Nicaise, 2000; European Commission/EACEA/Eurydice, 2014). We will restrict ourselves here to highlighting some general objectives of the EFPs, as well as some basic modes of targeting.

Before continuing, it is important to outline the conceptual difference between two strategies to achieve equity in education: educational opportunities, and educational outcomes. The first set of strategies aims to support or encourage groups that are educationally disadvantaged to participate on a more equal footing, or to continue studies after formal education. In other words, they are intended to overcome exogenous obstacles and ensure that all children receive equal *access* to education. They do not challenge the structural barriers to success within education systems (Nicaise (ed., 2000); Ross, 2009). Educational outcomes strategies, on the other hand, aim to bring children from different social backgrounds (as much as possible) to the same level of school outcomes by investing additional resources in disadvantaged groups that lag behind or are at greater risk than others. However, as this study focuses on the *effectiveness* of EFPs, educational opportunities are also taken into consideration, viewing them as stepping stones towards more equal outcomes (Nicaise (ed., 2000); Ross, 2009).

1.1.1. Objectives

As mentioned earlier, the diversity and number of objectives of EFPs have increased during the past few decades. Furthermore, they vary considerably as a consequence of, on the one hand, diversification, and on the other hand, the shift from a 'compensatory perspective' towards an 'inclusive perspective'. Whereas the first EFPs were explicitly aimed at reducing educational inequalities through *a posteriori* compensatory measures, nowadays EFPs and their objectives are defined in terms of the *a priori* levelling of unequal opportunities (Demeuse, 2012). This broadens their scope, leading to a significant increase in the number of objectives such as the fight against absenteeism or dropping out, the fight against violence at school, assistance for parents, and so on (Demeuse, 2012). Despite all of these differences and varieties, the general objective of equity funding schemes could be seen as supporting students who suffer from learning and development difficulties that are due to exogenous circumstances (e.g. socioeconomic status, ethnicity, gender, parental education, etc.) (Bernardo and Nicaise, 2000). However, considering the observed differences, Bernardo and Nicaise (2000) state that in broad terms, five general types of specific objectives exist:

(1) Promoting the acquisition of basic skills that are traditionally more difficult for target populations to acquire (e.g. acquisition of local language by immigrants);
(2) Improving support mechanisms for teachers and schools (e.g. infrastructural matters, staff and teacher training);
(3) Enabling the development of educational activities, whether they are integrated into the school curricula or not, to promote school success, especially of targeted populations (e.g. intercultural education);
(4) Promoting collaboration between different stakeholders such as the school, families and other local authorities to ensure an integrated form of intervention (e.g. literacy courses for parents, health services at school, internships in local enterprises); and
(5) Tackling specific and more pressing needs of schools or areas where school exclusion is more problematic due to a high concentration of targeted students (e.g. dropout prevention programmes).

Demeuse (2012) compared the EFPs of eight countries and found similar types of objectives, and added one more:

(6) Encouraging authorities to target early learners is the best time to compensate for social disadvantage (e.g. early childhood intervention programmes).

1.1.2. Target populations

As indicated above, the objectives and the target populations are closely intertwined. A target group is, after all, the subject of an objective. In the case of EFPs, target groups are less privileged population groups who are likely to achieve lower educational outcomes, due to external circumstances such as socioeconomic status, parental education, ethnicity, gender, etc. (Ross, 2009). Additional support is provided to ensure that these groups are given equal chances to fully develop their abilities and to maximise their educational success. Indirectly, this relates to the question of target effectiveness.

The definitions of target groups and their needs vary widely between, and sometimes within, countries. In Europe, target groups are usually specified as students with low socioeconomic background, migrant status or disabilities, whereas criteria like geographical area or students' ethnic origin are used less often. A few education systems also use criteria such as educational attainment, grade repetition or behavioural problems (European Commission/EACEA/Eurydice, 2016). In general, there are two modes of targeting: (1) based on individual student characteristics; or (2) based on geographical areas (Bernardo and Nicaise, 2000; Demeuse, 2012; Groenez, 2013; Ross, 2009).

In the case of individual student targeting, schools receive equity funding depending on the proportion of students with a disadvantaged background served by the school. Students can be disadvantaged in several ways: children belonging to ethnic or linguistic minorities, children from traveling or itinerant families, or children who are socioeconomically disadvantaged. Belonging to a less privileged group often implies accumulation of educational disadvantages, complicating integration and educational success. For example, many students with low socioeconomic status also belong to an ethnic and/or linguistic minority group (Bernardo and Nicaise, 2000; Demeuse, 2012; Ross, 2009).

The second mode of targeting is based on geographical areas (educational priority areas) that are disadvantaged regions or neighbourhoods. Here, a majority of the population is affected by poverty, unemployment, dependency on social benefits, educational difficulties, etc. (Demeuse, 2012; Ross, 2009). According to Bernardo and Nicaise (2000), three main types of areas can be distinguished:

(1) disadvantaged neighbourhoods within flourishing urban areas; (2) areas undergoing economic restructuring; and (3) backward rural areas where poverty continues to persist due to specific regional development problems.

According to Demeuse (2012), the transformation from a 'compensatory perspective' to an 'inclusive perspective' was attended by a shift from territorial to student-based targeting. Yet, both types of targeting are still used in Europe and North America. In the literature, a debate has emerged about the most effective way of targeting. Each mode has its strengths and weaknesses. The major advantage of territorial targeting is the possibility of applying an integrated approach where synergies can be created between educational and other local development strategies. As argued by the overall report of the EPASI programme (Ross, 2009): 'Education alone cannot provide the solutions to inequity. There will always be a wide range of other social factors involved, and a wide and multi-agency approach will be required to address all of these.' Moreover, the creation of synergies between different stakeholders in a particular educational priority area fulfils one of the objectives mentioned by Bernardo and Nicaise (2000), namely 'Promoting a collaboration between different stakeholders such as the school, families and other local authorities to achieve an integrated form of intervention'. Another advantage of area-based targeting is the simplicity of the method: areas are easy to define.

Despite its benefits, area-based targeting has been criticised for its limited efficiency. Social disadvantage does not fully coincide with local territories: some disadvantaged pupils do not live in the educational priority area and therefore do not benefit from additional resources, whereas other, less disadvantaged pupils do live in the targeted area and do receive additional resources (Bernardo and Nicaise, 2000; Demeuse, 2012; Nicaise I. (Ed., 2000)). Therefore, student-based targeting is increasingly preferred, with additional school funding being allocated according to the concentration of students with particular characteristics such as low socioeconomic status, ethnic and/or linguistic minorities, or children from travelling or itinerant families. Nevertheless, other issues need to be addressed with student-based targeting. First, privacy issues might arise when registering students' characteristics. The production of such registers has not always been legally authorised; in France and the Czech Republic, this is the case for ethnic background. Second, obtaining data on all of these characteristics involves a significant amount of additional paperwork. Finally, focusing on the entire school population could be more effective; a greater structural impact on the learning process can be achieved by involving all educational agents (Bernardo and Nicaise, 2000; Demeuse, 2012).

Next to the two modes of targeting explained above, EFPs are often restricted to pupils within a certain age range (e.g. pre-primary or primary education). These restrictions are informed by a 'preventive' approach to defining at-risk groups. Heckman (2011) argues that remedying problems is less cost effective than preventing them in early childhood education. Machin (2006) reviews a substantial body of evidence that confirms the profitability of early childhood and pre-school programmes for disadvantaged children, such as Head Start (US) and Sure Start (UK), while there is less agreement on the effectiveness of EFPs that target disadvantaged pupils at later ages.

1.2. How effective are EFPs? A brief review of empirical findings

Regarding the effectiveness and efficiency of the EFPs, the first question that needs to be addressed is: 'which outcomes do we target?'. Output criteria that are commonly used include test results, student achievement, attendance rates, early school leaving, etc. Non-cognitive outcomes are less commonly

used, but are possibly equally – if not more – important (Heckman, 2011). Therefore, we will not focus exclusively on cognitive outcomes, but also include school career effects and non-cognitive outcomes.

In general, existing evaluations of the effectiveness of EFPs yield modest positive effects (Bernardo and Nicaise, 2000; Betts and Roemer, 2005; Bjorklund et al., 2006; Demeuse, 2012). The debate about whether 'money matters' seems to continually cause scepticism about the effectiveness of all EFPs. Nevertheless, by analysing the allocation of additional resources and the specific outcome measures used in greater detail, it is possible to discover some policies that are more effective than others.

Starting with *cognitive outcomes*, the results are mixed. Card and Payne (2002) analysed the impact of school finance reforms on the distribution of school spending across richer and poorer districts by using nationwide data from the US. They discovered that the equalisation of school spending led to a decrease in the student achievement gap between pupils from different family backgrounds. Papke (2005, 2008) evaluated the impact of Michigan's 'Proposal A reform' on fourth-grade pass rates and seventh-grade math tests, and concluded that low-performing schools improved the most. Roy (2011) drew a similar conclusion: Michigan's 'Proposal A reform' increased the student performance of both fourth- and seventh-graders on state tests in poor school districts, although no improvement in scores on nationwide tests were observed. In contrast to these findings, Van der Klaauw (2008) did not detect any impact of supplementary educational services in mathematics and reading on the achievement of disadvantaged students in primary and secondary education in New York.

Looking at the specific ways in which schools use their equity funding, the results are again mixed. First, several studies researched the impact of class size reduction on student performance scores in both primary and secondary education. The assumption is that smaller classes enhance student test scores. However, results of existing evaluations of class size reductions are disputed, or showed rather small improvements in the achievements of disadvantaged pupils (Angrist and Lavy, 1999; Gibbons and McNally, 2013; Rivkin et. al., 2005). Secondly, with respect to allocating additional funding for personnel, there is evidence that minority and disadvantaged pupils are often faced with novice teachers, who perform less well and possibly negatively affect these pupils' performance. Bénabou et. al. (2009) investigated this issue by studying the ZEP in France, a programme that provides additional funding to schools in disadvantaged areas (cf. territorial targeting). The additional subsidies are used partly for teacher bonuses and partly for additional teachers. However, Bénabou et. al. did not detect any effect of the extra resources on the test scores of disadvantaged students in middle schools (sixth-grade through ninth-grade). Leuven et. al. (2007) evaluated the impact of two measures (extra funding for personnel and extra funding for ICT) in the Netherlands on language and arithmetic achievement in primary schools with disadvantaged (minority) pupils numbering over 70 %. The effect of the personnel subsidy was not significantly different than zero, presumably because the targeted schools already had sufficient personnel resources. Contrary to these findings, Machin et. al. (2010) found that allocating equity funding for personnel had positive effects; they examined the impact of the UK's "Excellence in Cities (EiC)" programme in secondary schools, and observed positive impacts on students' attainment in mathematics and on school attendance. Finally, regarding the impact of the ICT subsidy on pupils' achievements, results have shown negative effects, meaning that they are associated with a decrease in pupils' test scores. Studies confirming this finding include Angrist and Lavy (1999), who investigated the impact of computers in elementary and middle schools in Israel; Goolsbee and Guryan (2006), who found no impact of the availability of the internet on pupil achievement in primary and secondary schools; and Malamud and Pop-Eleches (2011) who examined the effect of home computers on child and adolescent outcomes through a voucher programme in Romania.

Whereas the impact of alternative uses of equity funding in schools are mixed, evidence about the timing of allocation is more clear-cut. Recent studies on targeting early learners showed a positive impact of pre-school interventions on educational outcomes, particularly for disadvantaged children. Cascio and Schanzenbach (2013), for example, examined the impact of President Obama's "Preschool for All" initiative on a variety of child and family outcomes, and observed increased enrolment rates for all children. However, regarding the impact on test scores in eighth grade, they found that children with a lower socioeconomic background clearly benefit from the programme, whereas no positive impact was found on the maths scores of children from higher-income families. Similarly, Felfe and Nollenberger (2012) found sizable improvements in children's reading and maths skills at the age of fifteen due to a shift from maternal care towards universal high-quality childcare for 3-year olds in Spain. Again, these effects were greater for disadvantaged children.

Summing up, the impact of EFPs on students' cognitive outcomes are mixed. Whereas the evidence on the alternative uses of equity funding remains ambivalent, the evidence on the timing of investment is more clear-cut. EFPs targeting early learners prove to be highly cost-effective in terms of cognitive outcomes.

EFPs may also affect pupils' *school career and labour market transitions*. Chung (2015) investigated the impact of Maryland's education finance reform on drop-out rates, and found no decrease. Comparable results were found by Neymotin (2010), where the Kansas School finance reform did not affect the drop-out rates in elementary and secondary education, although the study lacked precision due to possible selection bias. Similarly, Leuven et al. (2007) found no significant effects of extended schooling in primary education, that is, receiving extra education (combined with EF) had little impact on the wages of graduates.

The number of studies on the effect of EFPs on *non-cognitive outcomes is limited*, despite general agreement on the importance of these outcomes. Non-cognitive outcomes, such as perseverance, motivation, self-esteem, self-control, conscientiousness, forward-thinking behaviour, and well-being, all proved to be powerful predictors of students' achievement and success (Almlund et. al., 2011). This was clearly demonstrated in the Perry Preschool Programme (Heckman, 2011). The target group consisted of disadvantaged 3-years-old African American children with an IQ of 85 or below. Following an intervention of two years, while they did not have a higher IQ at the age of 10, they did score higher on achievement tests. This indicated that achievement test scores were influenced by both cognitive and non-cognitive factors, and therefore improvements in non-cognitive outcomes may positively affect the long-term performance of disadvantaged students. A study of Artlet et al. (2003) supported this: in general, stronger motivation, stronger academic self-concept, and a greater range of learning strategies, increase the performance of fifteen-years old pupils. Furthermore, Artlet et al. concluded that students with low socioeconomic status have lower self-related beliefs and less confidence in their abilities. In contrast, students with a high socioeconomic background were more motivated and used more control and elaboration strategies. Therefore, the better performance of students with a high socioeconomic status may be partly attributed to the differences in non-cognitive characteristics.

In summary, studies on the effectiveness of EFPs shows very mixed results. The question of whether the investment yielded value for money (efficiency) has no clear answer yet. Some researchers draw the conclusion that the amount of funding per student does not impact effectiveness, and that the focus should be shifted from more funding towards the way resources are spent. Others find that additional funding per student does improve effectiveness, and suggest boosting it by strengthening the schemes.

The ambiguity in research findings can be explained partly by the variety of national and historical contexts, and partly due to diverse legal frameworks.

DETERMINANTS OF EFFECTIVENESS

As the measured effects of EFPs did not always meet the expectations of policymakers and educational agents, questions arose in the literature over how this could be explained and what could be done to improve their effectiveness. Six potential explanations will be discussed: (1) the general context in which EFPs are implemented, (2) Matthew effects in the baseline funding of schools, (3) the ineffective use of additional resources, (4) ineffective targeting, (5) flaws in monitoring and evaluation, and (6) inequitable educational structures.

1.3. General context: an overview of some current social trends

Some general trends in the wider social context of education might undermine the effectiveness of EFPs. We will discuss three current social trends – increasing social inequalities, increasing segregation, and changing family dynamics – that may have adversely affected some students' educational opportunities, and possibly offset the effects of EFPs.

One well-known contextual factor is rising socioeconomic inequality in Europe and other industrialised economies since the 1980s. Over the past decades, income inequality has been rising almost continuously in nearly all OECD countries. In recent years, the OECD has repeatedly expressed concern about the fact that widening disparities have already led to under-investment of low-income groups in education, which in turn impedes economic growth (Keeley, 2015). Countries with the widest socioeconomic inequalities face more social problems such as poverty and decreasing literacy and numeracy among the youngest generation. As stated in a report of the European Commission (Perrons and Plomien, 2010): 'Poverty is transmitted from one generation to the next and increased education is not sufficient to overcome childhood family disadvantages' (OECD, 2011a; Perrons and Plomien, 2010).

Strongly associated with these socioeconomic inequalities is increasing school segregation, the separation of pupils into parallel school systems based on socioeconomic status or ethnicity (Agirdag et. al., 2012). The Coleman Report (1966) was the first to bring the issue into the spotlight by stating that school segregation contributes to increased inequality of educational opportunities and outcomes. Many studies have focused on this topic in the past fifty years, and all unanimously conclude that the composition of school and classroom impacts student and school achievement through unequal learning opportunities and peer influences (Karsten, 2010). Students from disadvantaged backgrounds in particular suffer from segregated education in ghetto schools, whereas upper-class students gain little from separation in elite schools. Moreover, in a period of increasing racial and/or ethnic diversity and increasing 'school choice programmes', school segregation is on the rise in many countries (Östh et. al., 2013). This tends to offset the impact of EFPs. In the Flemish community, for example, Groenez et. al. (2015); Wouters and Groenez (2015) showed there was an increase in school segregation up until 2012, and noticed that schools that received additional funding due to an over-representation of disadvantaged students used these resources mainly to try and neutralise the detrimental effects of segregation.

Finally, an increasing amount of research has emphasised the importance of changing family dynamics for students' educational opportunities and outcomes. During the past thirty years, many changes have occurred in family formation and household structure, primarily an increase in separation and divorce rates, resulting in more difficult family environments for children to grow up in. Studies showed a significant impact of a child's family structure – whether a student grows up in a single-parent, two-parent or extended family; how many siblings live in the household; and other important family characteristics such as divorce and remarriage – on their educational outcomes (OECD, 2011b). For example, the OECD (2016) concluded that students who live in single-parent families perform worse than those that live in two-parent families (Heckman, 2011; OECD, 2016a). Bernardi and Radl (2014) observed that parental breakup is associated with negative long-term consequences for children's educational attainment. Taking into account the educational level of parents as a reflection of their socioeconomic status, Bernardi and Radl (2014) suggest that parental divorce tends to be more detrimental for children

of highly educated parents. Broken family structures and changing family dynamics do impact children's educational outcomes through a reduction in economic resources, changes in parental time and parenting practices, more parental stress, and a lower well-being of the child (Bernardi and Radl, 2014).

1.4. The baseline funding of schools

School funding mechanisms are extremely complex due to the involvement of several levels of administration, and the increasing number of (private) actors contributing to educational provision and their growing influence on spending decisions (European Commission/EACEA/Eurydice, 2016; OECD, 2017b). Whereas the provision of a sufficient level of investment in education is important, the equitable allocation of resources between schools is equally, if not more, crucial as it determines whether or not all students are given equal opportunities to learn (OECD, 2016b, 2017b; Roemer, 1998). Many education systems have not adequately neutralised the pre-existing 'Matthew effects' in educational funding, meaning that schools, attended by disadvantaged students, are themselves often disadvantaged in terms of economic, cultural, social and human resources (Poesen-Vandeputte and Nicaise, 2015). Underestimating these school resource inequalities may have impeded the effectiveness of EFPs.

Schools may be inequitably funded due to decentralisation and/or school autonomy over budgetary matters. With respect to the first aspect, the OECD (2017b) has argued that the more decentralised a system is, the better it can allocate resources in line with schools' specific needs, but the higher the risk of inequitable funding. The funding system in the US, where school districts are responsible for school funding and states play a limited role, illustrates this well. Due to the fact that nearly half of the funding for public schools is provided through local taxes, great disparities in spending capacities between school districts (and states) have been identified. For example, in Connecticut, one of the richest school districts (Greenwich) spends about $6000 more per pupil per year than does one of the poorest school districts (Bridgeport). Such disparities in spending capacities seem to be a persistent problem in 23 states (Biddle and Berliner, 2002; Klein, 2015; Semuels, 2016). Consequently, unless they are counteracted by educational policies, spending capacities may vary geographically in favour of richer areas, enlarging disparities in the quality of school buildings, facilities, equipment and teaching materials, teachers' experience and qualification, class size, and other resources (Biddle and Berliner, 2002; Conneticut State Department of Education, 2015; OECD, 2017a, 2017b). In Europe, local authorities allocate the major proportion of funding in Denmark, Sweden and Lithuania (OECD, 2017b). Furthermore, school board autonomy over budgetary matters could also contribute to adverse redistribution effects. In the Flemish Community of Belgium, the funding for operational costs is calculated by a weighting of the proportion of disadvantaged students in individual schools. These additional resources are not transferred directly to schools, however, they are instead provided to school boards who may (re)allocate them between their schools (OECD, 2017b). Groenez et al. (2015) and his colleagues observed that some school boards, which are responsible for several schools, use their own weightings whereby disadvantaged schools do not necessarily receive all the additional resources they are entitled to according to their weighting by the central funding body.

Besides lower financial resources, disadvantaged schools also tend to have more difficulty in attracting qualified (in terms of educational certificates) and experienced teachers than do schools with more advantaged student populations. For instance, in the Netherlands, the proportion of qualified teachers is three times higher in advantaged schools than disadvantaged schools (OECD, 2013), and in the Flemish community, Sweden and Alberta, experienced teachers usually work in advantaged schools whereas

teachers with less experience mostly work in disadvantaged schools. Less competent teachers not only directly affect students' educational outcomes but are also less able to use additional resources in the most effective way (OECD, 2013, 2017a).

Finally, disadvantaged schools can also suffer from poor quality of infrastructure, furniture, IT equipment, etc. (OECD, 2017a). Although the evidence on the effect of such resources on students' performance is mixed, the OECD (2016b) concludes that in most education systems poor infrastructure and equipment hinder schools' capacity to provide decent instruction. This is negatively associated with students' scores in thirteen educational systems. Moreover, poor infrastructure may necessitate more maintenance and heating expenses, or schools may choose to invest their additional funding in capital expenditures instead of spending it on pedagogical measures such as after-school classes, tutoring, extra personnel, class-size reduction, etc., which obviously reduces the impact of EFPs (OECD, 2017b).

1.5. The use of additional resources

Another possible contributor to the weak effectiveness of EFPs is the inefficient use of equity funds. Many countries are characterised by multi-level and multi-actor education systems, possibly occasioning ambiguity about the purposes and regulatory frameworks of EFPs. In this context, questions have arisen about the degree of discretion that schools should be granted in managing equity funds (cf. school autonomy), and the ability of school leadership and management teams to deal with budgetary tasks (Burns and F. Köster, 2016; Demeuse, 2012; OECD, 2017b).

While greater discretion gives schools the opportunity to use equity funds to fit their specific needs and address local challenges, it also increases the risk of inefficient use due to a lack of top-down guidance and support for teachers, principals and school management teams (OECD, 2017b). A recent overview of how additional resources are allocated to schools in Europe (European Commission/EACEA/Eurydice, 2016) concluded that in two-thirds of education systems, schools receive equity funds from central administrations. In the remaining third, other educational administrations (regional and local) are responsible (such as municipalities in Denmark, Sweden and Norway or autonomous communities in Spain). Moreover, they found that in the majority of education systems, schools receive additional resources in kind, typically additional staff (such as in Germany, Poland, Bulgaria, Slovenia, Montenegro and Portugal) or by the provision of professional development opportunities for teachers to improve their competences (such as in France). Nevertheless, the degree of discretion a school is granted in the use of equity funds differs between countries: the OECD (2017b) states that the more discretion local authorities have, the greater the discretion a school will receive. However, in most education systems, schools or local authorities are bound to several conditions (e.g. criteria, national or local rules, or for specific types of activities) when using equity funds. Yet, in the Flemish community of Belgium, the Netherlands, Finland, The UK (England, Wales, Northern Ireland) and Bosnia Herzegovina, schools have full discretion in spending equity funds in the way they deem most appropriate. With such a high degree of discretion, concerns arise about the lack of transparency and accountability at school level (European Commission/EACEA/Eurydice, 2014; OECD, 2017b). How can one guarantee that the additional resources benefit the disadvantaged students, and that the targeted students have received genuine equal opportunities, if schools can freely choose how to spend their equity funding? The Flemish Community of Belgium illustrates this problem well. Groenez and his colleagues (2015) observed that the additional operational subsidies were largely used by schools to cover fixed costs and basic necessities rather than pedagogical support for disadvantaged students. Yet, the authors suggested that it was logical for schools

in difficult financial circumstances to use these funds to cover the most basic needs, even if those are 'material' rather than educational. However, the question arises whether it would be more efficient to earmark the subsidies, as the combination of non-earmarked subsidies with poor accountability at school level increases the likelihood of inefficient use of equity funding. Not only the Flemish Community has these concerns: other countries also need to carefully consider whether earmarking of additional resources would improve the efficient use of additional subsidies.

In addition to national funding, international funding sometimes also plays a role in supporting educational initiatives and infrastructural investments. For example, the European Union's structural funds – the European Regional Development Fund (ERDF) and the European Social Fund (ESF) – are both designed to promote economic and social development, and to address the specific needs of disadvantaged regions or groups across the European Union. Despite their effectiveness, countries benefiting from these funds face the common challenge of providing adequate management capacity to absorb and successfully use the funds. More specifically, in countries where individual schools need to apply for international funding, competent and experienced management teams are required to write an adequate grant application. However, as disadvantaged schools often also lack strong management teams, they are less likely to attract these funds as opposed to advantaged schools, which possibly enlarges disparities between schools (OECD, 2017b).

A related determinant – especially when schools have a high degree of discretion over the allocation of their resources – is the ability of school leadership and management teams to handle budgetary matters (Bloom et. al., 2015). Evidence from PISA (OECD, 2016b) indicates that students' scores are positively associated with a high degree of discretion for school leaders. Nevertheless, this applies only in countries where the level of competence of the management is above the OECD average. Often, disadvantaged schools have difficulties recruiting better qualified principals and management teams (OECD, 2012, 2017b).

In sum, the degree of discretion as well as the quality of school leadership and management teams plays an important role in the effectiveness of EFPs.

1.6. Targeting

As mentioned in section 1.1.2., there is great variety between and within countries as to how target groups are defined. The way in which target groups and their needs are specified may be insufficient and thereby cause the apparent under-performance of EFPs (Bernardo and Nicaise, 2000; Demeuse, 2012).

First, the ongoing debate about territorial versus student-based targeting has revealed some examples of inefficient territorial targeting. In the US, for instance, several studies evaluating 'Title I' concluded that by the end of the 1970s, 68% of all schools in the US received some equity funding, but about 40% of disadvantaged students were overlooked, while 58% of the children who did receive support were not deprived. Similar results were observed in the UK (e.g. Education Action Zones, Sure Start, Excellence in Cities, etc.) and Ireland (Breaking the Cycle Scheme, Schemes of Assistance to Schools in Designated Areas) (Tunstall and Lupton, 2003; Weir and Ryan, 2000). Moreover, in France, Bénabou et al. (2009) found that the 'Zones d'Education Prioritaire (ZEP)' had no significant effect on students' achievement at secondary level, while (and perhaps because) the 'ZEP'-label stigmatised those areas and caused a flight of middle class families making them even more disadvantaged.

Due to these criticisms, a shift towards student-based targeting was observed in EFPs, although again some challenges need to be overcome (Bernardo and Nicaise, 2000; Demeuse, 2012). First, in implementing a more refined set of indicators of needs, very detailed data on individual student characteristics are required, which could lead to privacy issues and significantly more paperwork (OECD, 2017b). Second, as reporting systems were developed for schools to collect data on students' characteristics, concerns have been raised about the reliability of the statistics submitted by schools to apply for additional resources. Last but not least, the indicators used need to be good predictors of educational disadvantage. Scientific assessments can be made, before as well as after implementation, based on correlations between the administrative indicators and more detailed profiles of students at risk. In the Flemish Community, for example, a combination of indicators is used that reflects economic, social and cultural capital (parental educational attainment, entitlement to school grants, mother tongue, and area of residence). All of this information is available from 'day one' of a child's school career, mainly from administrative databases, and can therefore be used in strategies to prevent – rather than remedy – school failure. Although this mix of indicators have been proven to produce reliable predictions of young people's educational success, it would have been preferable to include further information on the student's family composition (single- versus two-parent household) (Groenez et. al., 2003). This last indicator was not used in the Flemish EFP scheme as it was considered too sensitive.

The ongoing debate on how to define target groups has proven that a simple 'recipe' for efficient targeting does not exist, but needs to be developed in each country based on arbitrage between accuracy, administrative simplicity, and privacy protection (Bernardo and Nicaise, 2000; Demeuse, 2012; Raffo et. al., 2014).

Another dimension of the targeting issue relates to the age range targeted, and the distribution of additional funding across age groups. Heckman claims that the efficiency of educational interventions for disadvantaged groups is inversely related with their age: very high for infants and toddlers, high at primary level, and rather modest at secondary level and beyond. Consequently, he unequivocally recommends a concentration of investments at the earliest possible age; for example, in childcare and preschool.

Targeting additional funding at specific groups is one issue; ensuring that it produces the desired effects for those groups is another. In section 2.3., we already suggested that the inputs are gradually transformed and pass through many hands: from the Ministry to school boards, from school boards to principals, then to teachers or classes, and finally to students. The (re)distribution of inputs at each stage of the process depends on a mix of norms and private objectives, which are partly concordant but also sometimes conflicting. What happens in the final stage, where teachers divide their energy, know-how and attention across students? What pressure do they experience from other agents in the process (principals, inspectorate, different groups of parents)? What ethical and pedagogical considerations determine their behaviour? Legislators and governments have only limited power in imposing their priorities. A common principle is that no students should lose for the benefit of their more disadvantaged peers[1] . In some cases, the law on EF indeed prescribes that the additional resources should be used in such a way that *all* students gain, on condition that disadvantaged groups gain most, so as to reduce performance gaps. Very few evaluation studies have explicitly focused on the distribution effects of EFPs (OECD, 2017b). In most cases, separate effects are measured for one or two subgroups of students (e.g.

1 In economic terms, a Pareto-optimal transaction is defined as a transaction that allows at least one party to gain, without negatively affecting any other party.

ethnic minority or 'low-SES' students) or schools (e.g. schools in priority areas). But what about subgroups within the broadly-defined target groups or areas?

An interesting research question is whether equity funding is primarily used to guarantee that their target groups reach a minimum level of competences, or to boost the educational outcomes for *all* socially disadvantaged students, including those performing at higher levels of achievement. In this regard, Plucker et. al. (2010) examined the 'excellence gap' in the US, referring to the differences between subgroups of high-performing students from different social backgrounds. They concluded that in the US, schools benefiting from equity funding tend to focus too narrowly on reaching minimum competences with low-achievers, while neglecting potential high-achievers in the target group. According to Plucker and colleagues (2010), the modest overall effects of EFPs in the US could be due to this 'selective attention'.

In sum, the effectiveness of EFPs crucially depends on two stages in the targeting process. First, the equity principle implies that target groups are defined in such a way that their educational disadvantage, which is due to exogenous social circumstances, can be adequately tackled in a preventive way, with a minimum of leakages or spill-over effects. Next, all along the implementation chain, stakeholders need to agree on common strategies to maximise the potential gains from their intervention. Inadequate targeting at any stage tends to weaken the effectiveness of EFPs.

1.7. Monitoring and evaluation

Governments sometimes invest a substantial amount of resources to improve students' educational opportunities and outcomes. To ensure that these resources are effectively and efficiently spent in line with the specific needs of the targeted students, it is crucial to monitor and evaluate the use of equity funding. This helps to avoid both overspending and underspending, to increase transparency, to lower the risk of mismanagement or fraud, and to increase the accountability of administrations and decision makers (OECD, 2017b). However, the OECD (2017b) concluded that monitoring and evaluation practices could be improved in many education systems. More specifically, out of the 17 countries participating in the OECD Review of School Resources, only five require their schools to report on a regular basis to central or local administrations about their finances (Chile, Slovenia, Slovak Republic, Iceland and Israel). In other education systems, public authorities depend on the discretion of schools to provide information in order to evaluate or monitor EFPs, but this is often not even a primary concern to administrations (e.g. Lithuania, Portugal, Czech Republic, Sweden and Denmark). For example, in Lithuania, schools with students from poor families are provided with additional support, but no one quite knows to what extent these additional resources serve the needs of these disadvantaged students, as the government prefers to focus on providing inputs rather than monitoring the outcomes (Shewbridge et al., 2016). In four education systems, no information is available (Austria, The Flemish and French Communities of Belgium, Spain). The absence of such information may undermine the effectiveness of EFPs, as it limits the possibility to adjust EFPs to emerging local challenges and to make well-informed spending decisions.

As mentioned earlier, due to the increasing decentralisation of education systems and extended school autonomy, multi-level and multi-actor governance has become a reality. This raises questions about the accountability of each actor at each level with regards to spending decisions, and creates challenges for fiscal control and financial reporting (Burns and F. Köster, 2016). Moreover, this makes decisions at central level to ensure equitable resource allocation more difficult. Therefore, by implementing monitoring and

evaluation practices, administrations can examine whether resources have been allocated and managed productively and effectively, and collect information for possible improvements. However, as Burns and Cerna (2016) note, in multi-actor educational governance, it is important to involve all stakeholders in the process of evaluation and monitoring. In other words, teachers, principals, and school teams should also be involved in evaluating and, if necessary, revising the use of equity funding within their school. This not only increases the awareness of schools about whether they spend their additional resources effectively, but also facilitates the efficient planning and management of resource provision (Burns and Cerna, 2016). In Slovenia, for instance, schools are required to submit a self-evaluation of the implementation of their annual work plan and describe how it links with their financial and human resource plans (Slovenian Ministry of Education, 2016).

In short, to strengthen the efficiency of EFPs, monitoring and evaluating at central, local and school level are necessary. As schools and/or local authorities receive a certain degree of autonomy over budgetary matters, it is of great importance that this flexibility is accompanied by well-established accountability mechanisms and a high degree of transparency, especially in those school systems where school autonomy is negatively related to student achievement.

1.8. Educational structures

EFPs are embedded in national education systems with their own characteristics, which in turn also affect the equity of outcomes. If educational structures are inherently inequitable, the impact of EFPs could be largely offset. For example, educational systems with a high degree of free school choice tend to fuel competition between schools, with elite schools becoming more selective in enrolment, and thus strengthening segregation and enlarging disparities in student achievement between schools (Belfield and Levin, 2002; OECD, 2017b; Wößmann and Schütz, 2008). The adverse impact of free school choice on equity can be larger than the favourable impact of EFPs. Similar observations can be made regarding the tracking age. Studies examining its impact on student performance found that the earlier students are tracked, the bigger the disparities in achievement between weak and strong students (Lavrijsen, 2013; Schütz et. al., 2008). This is strongly related with their socioeconomic background, as talented students with a low socioeconomic background will be 'misallocated' more frequently in systems with early tracking (Lavrijsen, 2013; Pekkala Kerr et. al., 2013). Hence, the tracking regime may well completely outweigh the effect of equity funding.

Another important issue is the baseline funding of schools. When the baseline funding is inherently unequal – as in the US where public schools depend on local district funding, or in some European countries where municipalities are responsible for the provision and funding of basic education – the funding of schools will inevitably vary with spatial inequalities in the distribution of public resources, and EFPs will face greater difficulties in compensating for these inequalities. Hence, a first and crucial step in improving the functioning of EFPs is to level the playing field in the baseline funding of schools.

While many other educational structures may be partly responsible for the poor impact of EFPs (such as early tracking, segregation, grade repetition, ability grouping etc.), discussing all of these structures goes beyond the scope of this article, which focuses on the relation between equity and school funding.

IMPLICATIONS FOR POLICY AND PRACTICE

In the previous chapter we identified key potential reasons for the success and failure of EFPs. This chapter will outline some of the implications for policy and education providers. The determinants are all to some extent linked with one another, and in total, six sets of implications will be addressed.

1. Acknowledge and minimise the adverse impact of the broader social and educational context

Three exogenous social trends were previously discussed, each of which may have reduced the effectiveness of EFPs over time: increasing social inequalities in Western societies at large, increasing segregation, and changing family dynamics.

- Growing macro-social inequalities cannot be compensated by EFPs, nor indeed by educational policies alone; they must be addressed in the first place through taxes and transfers, and labour market policies (employment, minimum wages, labour protection) (Keeley, 2015; OECD, 2011a).
- School segregation is at least partly an exogenous trend, because it mirrors residential and labour market segregation. Hence, public housing and anti-discrimination measures in other policy areas need to be co-ordinated with school desegregation measures. Within education, equity funding itself is a tool for desegregation (as it makes low-SES and minority students more attractive for schools). However, it should go hand in hand with anti-discrimination measures, strengthening student enrolment rights, and fostering intercultural education. In some countries – particularly those with free school choice – positive discrimination in enrolment (e.g. through quotas) can be imposed in order to obtain a better social mix in student populations. Resistance can be overcome by convincing all stakeholders that heterogeneous groups of students have a favourable impact on the educational achievement of disadvantaged groups, without harming the performance of the more privileged ones (Holzer and Neumark, 2006).
- Finally, governments could invest more in family-friendly policies to support single parents and prevent the further fragmentation of families. This includes targeted income and family support, as well as measures to improve work-life balance (OECD, 2011b).

Apart from these social trends, some educational structures, such as early tracking and quasi-market mechanisms, could also counteract the effectiveness of EFPs. As these structures are often deeply rooted in the education system, they are not easy to change. Structural reforms in education are long-term processes that require the involvement and effort of all educational actors. However, in the short run, governments could opt to implement experiments on a smaller scale and carefully monitor their impact on equity. In addition, they could check if the effectiveness of EFPs has changed in this context before extending their coverage to the (sub)national level (OECD, 2017b).

2. Level the playing field in the mainstream funding mechanisms of schools

The share of EF in overall national education budgets is often relatively small. It should come as no surprise, then, if its redistributive impact remains limited or insignificant. This is particularly true when the provision or funding of education is decentralised to the local level. Educational authorities should therefore evaluate the actual distribution of school resources, taking into account the legal framework but also (if possible) hidden contributions from municipalities, non-profit organisations, parents and alumni, and quasi-market mechanisms in the mobility of personnel whereby the quality of teachers correlates with the social status of a school's intake. Unless these inequalities are ironed out, EF cannot fully play its role in equalising opportunities. The necessity of public information on actual school resources justifies mandatory reporting of school accounts to the ministries of education.

3. Clarify the objectives, target groups and regulatory framework of EFPs.

The objectives, target groups, instruments and regulatory framework of EFPs all need to be formulated in a SMART (specific, measurable, assignable, realistic and time-bound) way, and made clear to all stakeholders. Ambiguities could lead to inefficient or conflicting usage of funds by administrations and/or schools, particularly in disadvantaged areas or schools due to a lack of qualified management teams.

Hence, in order to promote a more effective and efficient use of additional resources, these policies should be better regulated by making the funding conditional on the fulfilment of certain basic requirements such as the development of plans.

The *definition of target groups* deserves special attention. First of all, needs criteria based on pupil profiles increasingly tend to be preferred over territorial criteria because many disadvantaged pupils live outside deprived areas, and many pupils living in deprived areas are not disadvantaged. This does not mean that territorial criteria are irrelevant: in some cases they are combined with student profiles to determine the amounts of EF provided to schools.

Furthermore, as ample evidence has demonstrated, the rate of return on investment in human capital is greatest in children's early years, and the importance of early childhood interventions and pre-school programmes is undeniable (Cascio and Schanzenbach, 2013; Felfe and Nollenberger, 2012; Heckman, 2011). It is therefore advisable to concentrate EFPs at the earliest possible ages (including the 'childcare' period) and to gradually reduce the additional funding through primary and secondary education.

4. Strengthen monitoring and evaluation practices to ensure that equity goals are met

The monitoring and evaluation (M&E) of EFPs is a critical factor to improve their overall effectiveness. The OECD (2017b) concluded that many education systems are in need of better M&E practices. The lack of such instruments is detrimental for EFPs because educational actors are missing information about the operation of the programmes. For example, adequate targeting of interventions is a complex task that requires frequent revision. When M&E instruments are lacking, such revisions are hard – if not impossible – thereby making policy and educational providers grope in the dark. As a consequence, transparency is missing and accountability mechanisms will be insufficient; local administrations and/or schools will have too much flexibility to spend the extra funding for other purposes. Therefore, the OECD recommends finding the right balance between flexibility on the one hand, and accountability and transparency mechanisms on the other. In order to do so, efforts are required at school, local and central level. For instance, at local and school level, expenditures should be reported and justified on a regular basis, students' educational careers should be tracked, and schools should make self-evaluations as to whether equity funds were spent effectively and efficiently. In this way, local administrations and schools will become more aware of the specific needs of their students and capable of designing efficient indicators, while – if necessary – adjusting them to local challenges. At central level, thematic studies on the effective use of equity funding, the validity of target group definitions, and remaining inequities in school funding, could be commissioned.

5. Develop and promote professional development programmes for teachers and school leadership

Teachers and school leaders are important actors in any education system as they are – at least in principle – best positioned to identify the specific needs of their school and to allocate resources accordingly. Yet, disadvantaged schools usually experience problems in recruiting qualified teachers and school leaders, which negatively affect students' educational outcomes (OECD, 2013, 2014, 2017a). Therefore, policies aimed at professionalising teachers and school leaders are also necessary to improve equity in education. In-service training and professional learning communities are most profitable when they are directly connected to the needs of schools. Earmarked funds for professional development at school level, and personal training allowances for teachers, can help in developing a genuine professional development culture at school level (Santiago and et al., 2016). Besides professionalisation policies, financial incentives can also contribute to attracting and retaining good teachers. According to Hanushek

(2003), these incentives should be based on the performance of their students rather than on the teachers' own credentials (Hanushek, 2003). Several studies have shown that merely raising teachers' pay in disadvantaged schools does not impact students' performance (Bénabou et al., 2009; Clotfelter et. al., 2011; Prost, 2013), whereas financial incentives for teachers based on students' achievement growth significantly improves students' performance. Changes in teaching methods and after-school teaching produced the main improvements (Lavy, 2009). Regarding the professionalisation of school leadership, educational administrations need to pay sufficient attention to the development of the pedagogical and managerial capacity of principals (OECD, 2017b). As the responsibilities of school leaders are often wide-ranging, professional training should be made available and tailored to the different stages of a school leader's career, along with the specific needs of a school. Moreover, school leaders should be encouraged to collaborate with one another and share knowledge about daily practice, and thereby possibly gain new expertise.

6. Do not overlook the 'excellence gap'

Some studies (e.g. Plucker et al., 2010) suggest that in the past EFPs were mainly focused on reaching minimum competence levels with the lowest achievers among the EFP target groups, while failing to challenge *all* disadvantaged students to reach their full potential and to increase the number of high-performers (Plucker et. al. , 2010). Even though prioritising the lowest achievers is perfectly legitimate, this means that EFPs only achieve part of their objectives. In future, strategies need to be developed that also boost the opportunities of more talented students among the disadvantaged (OECD, 2017b). In order to do so, differentiated approaches to teaching, assessment and evaluation should be used to provide the right amount of support and challenge to individuals, professionals and schools at all levels. A more differentiated strategy will also dampen the criticism that educational priority for socially disadvantaged groups comes at the expense of excellence. Moreover, by examining in detail the effect of EFPs on different student subgroups (e.g. low-achievers, high-achievers, underperformers, average students, etc.), new insights can be gleaned to inform policies that target and support students more effectively.

CONCLUSIONS

Education is a key instrument to strengthen social cohesion, overcome social disadvantage, and facilitate upward social mobility. Nevertheless, millions of children are still not given full opportunities to develop their abilities and to maximise their educational success. As it is generally acknowledged that children should not be impeded by unequal opportunities that are due to exogenous circumstances, equity funding policies (EFPs) have been implemented in many countries to tackle educational inequalities.

This article provided an international review of effectiveness studies concerning equity funding in Western countries. The literature on the effectiveness of EFPs shows mixed results, with the notable exception of schemes that target early learners. These have been proven to be highly cost-effective. Otherwise, evaluation studies have found moderately positive effects. However, the results often did not meet the expectations of policy makers and educational providers, causing some scepticism about the effectiveness of EFPs. Six key determinants of success were examined in this paper that can help to explain both the weaknesses and strengths of national EF schemes: (1) the general context in which EFPs are implemented, (2) the pre-existing 'Matthew effects' in the baseline funding of schools, (3) the (in)effective use of additional resources, (4) adequate targeting of the additional resources, (5) the monitoring and evaluation, and (6) the degree of equity in educational systems as such. These determinants should be kept in mind when designing and evaluating EFPs.

While this study does not offer a conclusive answer to the question of whether the present EF schemes yield value for money, it does not question the relevance of EFPs. However, one must recognize the various factors that are linked to equity funding and that impact their functioning. Due to the complexity of determinants, it is very difficult to disentangle the pure effectiveness of EFPs, or to predict what would have happened if equity funding did not exist. To date, no researcher has successfully resolved the previously mentioned issues. However, as a few countries appear to have implemented effective equity funding, we conclude that EFPs do have the potential to reduce educational inequalities. In order to establish opportunities for improvement, this review provided seven guidelines for policy and education providers: (1) minimise the impact of adverse mechanisms in the social and educational context; (2) level the playing field in the baseline funding of schools; (3) clarify the objectives, target groups and regulatory framework of EFPs; (4) strengthen monitoring and evaluation practices to ensure that equity goals are met; (5) develop and promote professional development programmes for teachers and school leadership with a specific focus on equalizing opportunities; (6) target resources wisely, preferably based on pupil profiles rather than territorial criteria, and concentrated at the earliest possible age so as to prevent gaps rather than having to fill them *ex post*; and (7) do not overlook the 'excellence gap'. These guidelines are, however, no guarantee of success, as each education system has unique characteristics. In order to achieve successful EFPs, these guidelines should be adjusted to address national and local challenges.

A number of interesting issues remain to be investigated. To date, indicators reflecting the key characteristics of EF systems needed for transnational comparative research are still very partial. International research by a special task force on this topic would be extremely useful. Moreover, case studies of successful EF schemes could serve as a source of inspiration for reforms in other countries via a peer-learning process. Research projects along these lines could be launched by the European Commission and/or the OECD.

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