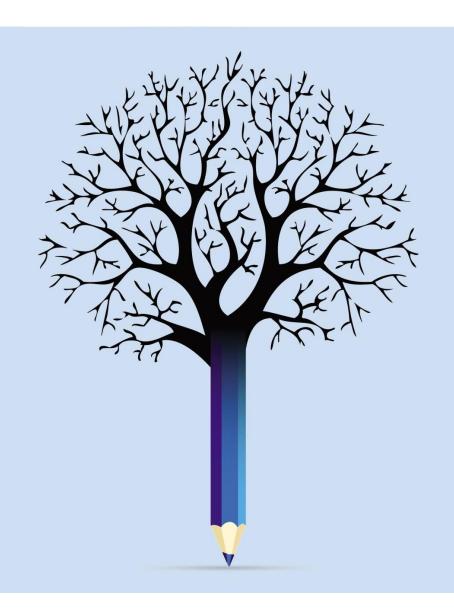
## **Policy Dialogues in Focus for Sweden**

International insights for school funding reform





Introduction

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#### Introduction

Over the last fifteen years, economic crisis, growing uncertainty about the future, and mounting pressure around the responsible and transparent use of public funds have placed the optimisation of resource use in school systems high on education policy agendas across the OECD and beyond. In particular, policy makers working on school funding seek to direct resources where improvements will help deliver positive outcomes for all while effectively targeting those with highest need and in areas offering greatest impact. During the COVID-19 recovery, uncertainty in the global economic and sanitary outlook, along with competing urgent and important priorities for education recovery, risk exacerbating these challenges.

On school funding specifically, three key priorities for education policy makers—quality, equity and efficiency—converge. These seek to direct resources where improvements will help deliver positive outcomes for all, while effectively targeting those with highest need and in areas offering greatest impact. At the same time, in the post-COVID-19 context and as education systems face increasingly uncertain futures, the drive for cost-effectiveness and targeted supports to redress inequities must be at the heart of efforts to build more responsive and resilient education policy ecosystems (OECD, 2021[1]). As such, the careful design of school funding policies, as well as their successful implementation and improvementfocused evaluation, is critical work for education systems.

Like many other OECD and non-OECD countries, in recent years, Sweden has embarked on dialogue and reflection around the most effective, efficient, and equitable ways to manage the school system, including with regards to the governance, distribution and allocation of school resources. A prolonged period of decline in student performance in the first decade of the 21st century and widening educational inequities have added urgency to this debate. Student performance looks to have been recovering more recently, yet challenges remain in ensuring that growing investment impacts student outcomes and that resources effectively respond to the needs of different learners and schools.

Currently, Sweden's school-funding model is characterised by a very high level of fiscal decentralisation, a high and growing level of public investment, and considerable heterogeneity in funding allocations to schools. Although there have been efforts to address some of the weaknesses of this model in recent years, underdeveloped monitoring and evaluation processes have not been conducive to implementing improvements. Moreover, a reliance on compensatory earmarked funding streams from central government do not appear to have adequately addressed key challenges, and do not look to be sustainable over the longer term.

In this context, in December 2020, Sweden established the Commission on State Responsibility for Organising the School System (referred to hereinafter as the Commission) to explore new options for school governance. As part of its mandate, the Commission will develop a proposal for a new school funding model where greater responsibility lies with central government, and is analysing the potential consequences of the transition to such a model for actors across the system (Parliament of Sweden, 2020[2]).

To support Sweden in these efforts, in October 2021, the OECD's Education Policy Outlook organised an online seminar—Policy Dialogues in Focus: International Insights for School Funding Reform in Sweden (referred to hereinafter as Policy Dialogues in Focus). This seminar offered members of the Commission an opportunity to learn from the reform experiences of school funding policy specialists from peer education systems. It also provided them with insights into relevant international comparative and empirical perspectives from the OECD Secretariat.

This Education Policy Perspective brings together key reflections from that event. As such, it offers relevant insights from international thematic and policy evidence to support Sweden's policy action in the area of school funding going forward. The policy brief begins with an assessment of the Swedish context, offering an overview of the current organisation of school funding and three funding-related challenges facing education policy makers.

It then proposes three strategic **core considerations** that policy makers in Sweden should take into account when pursuing reform processes for school funding. These are informed by case studies from three peer education systems (Australia, England and the Netherlands) and wider policy analysis and research. They take the form of key questions to guide the thinking of Swedish policy makers at key stages of the policy reform process (i.e. policy design, policy implementation and policy evaluation). Under each core consideration, the paper proposes policy pointers for action which suggest further practical steps Sweden could take when pursuing school funding reform (see Table 1).

Table 1. Overview of core considerations and policy pointers for school funding reform in Sweden

Policy process	Core consideration	Policy pointers for action
Policy design	What should Sweden do to make school funding more effective, equitable and efficient?	Estimating a minimum cost per student for quality outcomes.
		Strategically rethinking the division of funding responsibilities within Sweden.
		Putting formula funding at the heart of a needs-based school funding model.
Policy implementation	How can Sweden best ensure that school funding reform efforts achieve their goals?	Getting all stakeholders on board and keeping them there over time.
		Practising whole-of-system thinking to optimise dynamics between people and processes.
		Building capacity in a multi-dimensional way over the short, medium and long term.
Policy evaluation	How will Sweden know reform processes are having their desired impact?	Making fiscal accountability more nationally coherent and improvement-focused.
		Harnessing timely policy evaluation processes for system learning.

Ultimately, this paper urges Sweden to undertake a carefully designed, thoughtfully implemented and continuously evaluated reform of school funding. In particular, Sweden must take advantage of the wide societal acceptance that the current school funding model is sub-optimal, as well as the strong evidence base built by current and former Commissions, the OECD and other independent analyses, to develop a solid case for high-impact reforms of key distribution and allocation mechanisms at the heart of the school funding model.

Furthermore, policy makers will need to fully accept and transparently communicate the fact that school funding reform takes a lot of time: rushing either the design or implementation of these reforms will seriously undermine their potential impact. Finally, those involved in reform processes will need to adopt a mindset of evaluative thinking, recognising that continuous, evidence-informed improvement is the key to achieving a school funding model that supports high educational outcomes over the longer term.

## School funding in Sweden

Sweden's school funding model is notable for its high level of investment and highly decentralised governance. Due to concerns of inequity, the central government in recent years has sought to regain greater responsibility for school resources. However, increased expenditure and state intervention have not yet curtailed widening inequities and the impact on system outcomes is unclear. Looking forwards, with growing structural-as well as educational-inequalities and increased fiscal pressure on municipalities to provide adequate public services for all, Sweden needs to reform school funding to ensure a more nationally coherent approach that puts a holistic pursuit of quality, equity and efficiency at its centre.

## The current organisation of school funding in Sweden

OECD education systems have very heterogeneous school-funding approaches, with countries sometimes proceeding similarly in one dimension, but very differently in another. The Swedish approach is notable for its high levels of investment and decentralisation, with municipalities carrying the greatest responsibility for school funding. This decentralised model has been in place since the 1990s, yet, along with other aspects of school governance in Sweden, this model has been increasingly questioned over recent years as greater freedoms at local and institutional level do not appear to have translated into higher quality outcomes nor greater efficiency. Efforts already undertaken to expand the role of the central government in school funding do not seem to have been sufficient, nor do they look to be sustainable.

Educational expenditure on schooling in Sweden is high and costs are rising

Sweden spends a higher share of national wealth on primary, secondary and post-secondary non-tertiary educational institutions than on average across the OECD. In 2018, Sweden's total expenditure on educational institutions per full-time equivalent student relative to GDP per capita was 25% compared to an OECD average of 23%. At the same time, educational expenditure made up a larger share of public expenditure in Sweden than on average across the OECD at 8.4%, compared to 7.8%.

In 2018, Sweden spent one-quarter more than the OECD average per full-time student per year, in primary, secondary and post-secondary non-tertiary education (at USD 13 144, compared to USD 10 454). As is common across the OECD, the most expensive stage of schooling in Sweden is upper secondary vocational education, where expenditure reaches USD 16 393 per student. Upper secondary general education is the least costly, at USD 12 029 (see Figure 1). This is relatively unusual across OECD countries where the investment per student in primary education is generally the lowest across the school levels. Indeed, Sweden's annual expenditure per primary student equates to 96% of expenditure in upper secondary education, compared to an OECD average ratio of 85%.

Annual expenditure on learners in pre-primary education is also very high in Sweden, at USD 15 004 per student, compared to an OECD average of USD 9 260. This may be an effective strategic choice: investing in the early years is important as evidence suggests that this is where the biggest gains can be made, both in terms of establishing solid foundations for stronger cognitive skills and narrowing equity gaps (OECD, 2020<sub>[3]</sub>; Suziedelyte and Zhu, 2015<sub>[4]</sub>).

Total educational expenditure in Sweden has grown considerably over recent years, with an average annual increase of 4% between 2012 and 2018, compared to 1.9% on average across the OECD. For municipalities, the cost of compulsory schooling rose by an average of 32% between 2015 and 2020 (Statistics Sweden, 2021<sub>[5]</sub>). Indeed, education has been the main driver of average municipal expenditure increases of about 1% per year over the past decade (OECD, 2021[6]). This national average masks considerable variation, however, with a maximum increase in the municipal cost of education of 78% (Sundbyberg) between 2012 and 2018. Only one municipality experienced a decline in spending during this time, decreasing by 5% (Pajala) (Statistics Sweden, 2021[5]).

These changes in spending should be viewed in light of changing student numbers. Nationally, parallel growth in student numbers has meant that, in Sweden, the growth in spending per student has been lower than the average OECD growth, at 1.6%, compared to 1.8% (OECD, 2021[7]). At the same time, while some municipalities experienced considerable increases in student numbers, others experienced declines. As such, the cost of compulsory education relative to student numbers in Swedish municipalities rose by 22% on average from 2015-20, with the increase reaching as much as 71% (Bjurholm) (Statistics Sweden, 2021<sub>[5]</sub>) (see Figure 1). The growing cost of education has been largely due to increased immigration, higher birth rates among immigrant populations and efforts to enhance educational quality (OECD, 2019<sub>[8]</sub>; OECD, 2021[6]).

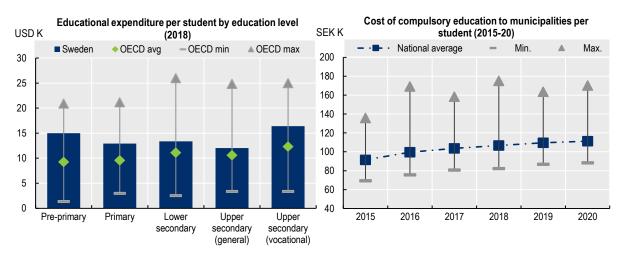


Figure 1. Educational expenditure in Sweden is high and costs are rising

Source: OECD (2021<sub>[7]</sub>) Education at a Glance 2021: OECD Indicators, OECD Publishing, Paris, https://doi.org/10.1787/b35a14e5-en; Statistics Sweden (2021<sub>[5]</sub>), Public Finances Database, <a href="https://www.statistikdatabasen.scb.se/pxweb/en/ssd/">https://www.statistikdatabasen.scb.se/pxweb/en/ssd/</a>.

Educational expenditure also increased during the COVID-19 pandemic. In the OECD's Special Survey on COVID-19, Sweden, like many OECD countries, reported having increased total public expenditure on education across every level (pre-primary to tertiary) during the pandemic period. At school level, these increases were achieved through additional allocations of funds from the central government, reallocation of funding within the education budget and reprogramming of previously earmarked funds. For example, during 2021, Sweden allocated an additional SEK 1.25 billion to municipalities for education funding to help learners access learning despite sanitary restrictions. Like in the majority of OECD education systems reporting the allocation of additional funds to school education during 2021 (20 of 27), in Sweden, municipalities received these funds according to student numbers. However, while other education systems also applied allocation criteria for socio-economic characteristics (19 of 27), students with special educational needs (10) and geographic criteria (4), in Sweden, municipalities had full discretion over the allocation of additional funding to individual schools (OECD/UIS/UNESCO/UNICEF/WB, 2021 [9]). As such, it is unclear how different equity criteria were applied (Skolverket, 2021[10]).

Sweden's highly decentralised approach to school funding results in a lot of heterogeneity

How governments allocate funding responsibilities between levels of administration can have a considerable potential impact on efficient and equitable resource distribution. Decentralised school funding in Sweden exists within a context of high fiscal decentralisation across public services: Sweden's sub-national governments, like their Nordic counterparts, enjoy extensive responsibilities and relatively high autonomy when it comes to public expenditure. Following the reforms of the 1990s, Sweden's 290

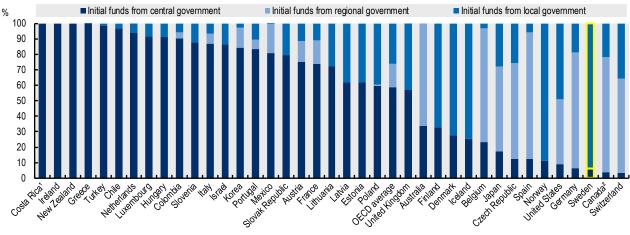
municipalities have held full responsibility for school education and must finance the primary and secondary education of resident children. This includes those attending a private school (17% of primary and lower secondary schools; 35% of upper secondary in 2020/21), or a school run by a different municipality. It translates to a high level of municipal responsibility for both raising and spending financial resources for schooling (OECD, 2021[6]). Previous empirical studies indicate that, across OECD countries, although expenditure decentralisation in education is more common, the effect of revenue decentralisation on educational outcomes may be more powerful.

Ensuring sub-national governments have discretion on tax rates is therefore an important dimension of fiscal autonomy (Kim and Dougherty, 2018[11]). Responsibility for revenue in education is highly decentralised in Sweden: in 2018, 94% of initial funds (i.e. funds before transfers between levels of government) for primary, secondary and post-secondary non-tertiary education were raised at the municipal level, the highest share across OECD countries. On average across the OECD, central government provided 59% of initial funds for this level of education in 2018; in Sweden this share was just 6% (see Figure 2). Sweden's municipalities and regions have discretion on tax rates, and education is financed principally by local taxation, predominantly on personal income. Across all sub-national spending in Sweden in 2019, local taxes and charges accounted for more than 70% of revenue. General grants (14%) and earmarked grants (6%) from central government accounted for the remainder (OECD, 2021[6]).

In education, the central government's general state grant and the fiscal equalisation system complement local revenue streams. Municipalities receive these central funds as a lump sum for all sectors of municipal responsibility: they have full discretion as to the distribution of funds across service areas. Central government also provides municipalities with some earmarked grants for specific target areas in education (see below).

Distribution of sources of total public funds devoted to primary, secondary and post-secondary non-tertiary education, by level of government (2018) Initial funds from regional government

Figure 2. Most school funding in Sweden is raised at the local level



Note: [1] Year of reference 2019. [2] Primary, secondary and post-secondary non-tertiary education includes pre-primary programmes. Countries are ranked in descending order of the share of initial sources of funds from the central level of government. Source: OECD (2021<sub>[7]</sub>), Education at a Glance 2021: OECD Indicators, OECD Publishing, Paris, https://doi.org/10.1787/b35a14e5-en.

Sweden operates a comprehensive fiscal equalisation system to try and compensate for intermunicipal (and inter-regional) differences in both revenue and expenditure. Income equalisation, achieved through horizontal redistribution and vertical state grants, accounts for nearly 90% of transfers in Sweden and is estimated to reduce municipal income inequality by a third (OECD, 2021[6]). Cost equalisation, which aims to overcome contextual differences in the cost of delivering public services, is entirely horizontal, redistributing contributions from around 100 municipalities.

As of 1993, each municipality has had full discretion in determining the amount of public funding spent on education and the allocation of funds to schools; in some cases, different districts within municipalities decide. Education accounts for the largest share of municipal spending: in 2019, on average, more than 40% of expenses went to education and training (OECD, 2021[6]). Local politicians in the city council and on child and education committees control which resources are set aside and how they are allocated in accordance with the local context. This capacity for locally responsive school funding has traditionally been seen as an asset: Swedish municipalities have different structural characteristics and priorities and therefore allocate resources in different ways (Swedish Ministry of Education and Research, 2016<sub>[12]</sub>).

However, large variations between municipalities and growing concerns around equity and quality mean that municipal approaches to school funding are now receiving greater critical attention. Since 2014, Sweden's Education Act has included an explicit requirement for municipalities to distribute resources according to learners' different needs. The last decade has also seen many municipalities move away from allocations based solely on student numbers and historical costs, towards formula funding with the inclusion of needs-based criteria. Research conducted in 2018 indicates that nearly 60% of municipalities now consider socio-economic factors when allocating resources; those that do not tend to be smaller or sparsely populated municipalities, which report little socio-economic variation between learners and schools (Swedish Association of Local Authoities and Regions, 2018[13]). Nevertheless, the share of resources allocated according to need is often relatively small, including in the most segregated municipalities (Skolverket, 2013<sub>[14]</sub>; School Commission, 2017<sub>[15]</sub>). The most common equity criteria employed are the guardians' level of education and foreign background. Other less common factors include gender, residential area, receipt of maintenance support or family structure.

Generally, schools receive funds from municipal authorities as a lump sum; school leaders in Sweden therefore have considerable autonomy over school budget administration, particularly in terms of staffing and professional development, and material resources. In TALIS 2018, school leaders in Sweden reported above-average levels of school autonomy for financial matters: 56% reported that the school had significant sole responsibility for establishing teachers' starting salaries, 81% for determining teachers' salary increases and 79% for deciding on school budget allocations, compared to respective OECD averages of 33%, 32% and 71%. Municipal authorities generally retain control of resources for student health, native language teaching or for students requiring special support (OECD, 2021[7]).

The monitoring and evaluation of school funding approaches remains ad hoc

Previous OECD analysis of education funding policies has highlighted the importance of evidence-informed decision making and careful monitoring and evaluation of policy processes at every stage in order to continuously enhance processes and ensure alignment with national priorities (OECD, 2019[16]). In Sweden, three national organisations play a role in monitoring or evaluating the use of school resources and supporting their enhancement.

- The Schools Inspectorate has responsibility for scrutinising how municipalities allocate resources in situations where concerns arise, such as when there are considerable differences in outcomes between schools within the same municipality (Swedish Ministry of Education and Research, 2016[12]).
- The National Agency for Education conducts follow up and evaluation of school funding approaches nationally, in addition to overseeing the use of earmarked grants. All authorities to whom the National Agency for Education distributes money can be subject to inspection, both to identify any irregular use of state money and to provide knowledge about how government subsidies are currently used and how they may be used more effectively.

Finally, the **Swedish Association of Local Authorities and Regions** aims to support sub-national authorities to better carry out their functions, including fiscal management. This has included research into school funding allocation models, for example.

Nevertheless, authorities in Sweden have previously emphasised the importance of municipal responsibility for the follow up and evaluation of their own resource allocation systems, arguing that each municipality is better positioned to find the resource allocation model that promotes quality and equity within their specific local context (Swedish Ministry of Education and Research, 2016<sub>[12]</sub>). In reality, however, monitoring and evaluation of school funding at municipal level has been rare, although reporting at school level appears to be more common (Skolverket, 2013[14]). In a survey conducted in 2018, several municipalities highlighted the difficulty of measuring and evaluating the impact of their allocation models (Swedish Association of Local Authoities and Regions, 2018[13]). As such there is little evidence base for political discussions at municipal level on how resources should be allocated and a lack of detailed understanding at national level of how funding models across the country are designed and function.

Recent efforts to increase central government's responsibility may be counterproductive

No school funding system is perfect and all must adapt to changing contexts. From 2008-19, funding-related reform efforts were commonplace across OECD education systems and funding-related policy priorities high on policy agendas (OECD, 2019[16]). In Sweden, driven by concerns about falling outcomes and rising inequities, successive governments have undertaken several efforts to enhance school funding approaches over the last decade, with a focus on achieving more nationally equitable distribution and allocation while maintaining the responsiveness offered by fiscal decentralisation.

To address a growing need for compensatory funding as inequities increase, Sweden's central government has considerably expanded the share of earmarked grants available to municipalities for education since 2014. Municipalities can apply for earmarked government grants with particular purposes; they are then responsible for dispersing funding across schools. The application and distribution process are administered by Sweden's National Agency for Education. These grants have principally focused on benefitting students from vulnerable socio-economic backgrounds and raising the attractiveness of the teacher profession (see Table 2).

However, although some earmarked grants may be necessary to ensure that resource allocation is consistent with key government policy objectives, an over-reliance on earmarked funding, particularly funds which are narrowly targeted and short-term, can inhibit efficiency (OECD, 2021[6]). Furthermore, in order to enhance system resilience, ensuring a balance between responsiveness to changing local contexts and learner needs may require greater flexibility.

The number and range of earmarked grants available to municipalities for compulsory education in 2021 indicate that Sweden now faces such a challenge. Furthermore, this approach to funding places a greater administrative burden on local and institutional actors, which can exacerbate inequities further; evidence indicates that many of the grants have benefitted the municipalities with sufficient capacity to successfully apply for them rather than those that need them most (OECD, 2015[17]; School Commission, 2017[15]). Finally, topping up municipal core funding with multiple targeted grants is not an adequate substitute for better central government steering and co-ordination and only leads to greater fragmentation (School Commission, 2017[15]; OECD, 2019[8]). Since 2017, the government has stated the intention of streamlining the use of these grants to be more strategic.

In 2015, Sweden established the Swedish School Commission (referred to hereinafter as School Commission), tasked with submitting proposals for education reform that could improve learning outcomes, the quality of teaching and equity in Swedish schools. The School Commission, which delivered its final report in 2017, assessed that it is necessary to increase national responsibility for school funding in order to ensure long-term and sustainable funding streams to municipalities and schools that better reflect different conditions between different institutions (School Commission, 2017[15]). Among other initiatives,

specific recommendations included that Sweden strengthen and consolidate different streams of central government funding for compulsory education into a block grant of approximately 6% of total school funding, designed to compensate for differences in socio-economic backgrounds.

The Government is currently phasing in such a grant, over three years, to be calculated on the basis of a socio-economic index value developed by Statistics Sweden (OECD, 2019[8]). However, the OECD has raised concerns about the need for direct oversight by central government of the allocation of these funds at municipal level (OECD, 2019<sub>[8]</sub>). The School Commission also concluded that the investment of additional resources to compensate for socio-economic factors was absolutely necessary if equality is to be improved in the Swedish school system (School Commission, 2017[15]).

Table 2. Earmarked grants available to municipalities for primary and lower secondary (2021)

Name of grant	Purpose of grant	Available funding
Undocumented children	To provide education for undocumented children.	SEK 50 million
Homework help for principals	To arrange voluntary homework help for students outside regular teaching hours.	SEK 1 000 per student (min)
Student Health	To employ or reinforce staff in student health or for special educational initiatives (e.g. school doctors, nurses and psychologists, as well as teachers with special educational competence).	50% of salary per new hire
Special education for learning 2021/22	To release teachers to supervise colleagues in the competence development initiative Special Education for Learning.	10-20% of salary per supervisor
Equitable schools	To expand ongoing initiatives or carry out new initiatives that strengthen equality and knowledge development.	SEK 6.23 billion
The Reading Boost in schools 2021/22	To free up time for teachers to supervise colleagues participating in the Reading Boost training programme.	10-20% of salary per supervisor
Digitisation of national tests	To support schools participating in the pilot programme for the introduction of digital national tests.	Dependent on further criteria
Career services 2020/21	To cover salary increases for pre-service teachers and senior teachers in an effort to enhance the attractiveness of the teaching profession.	SEK 1 852 million
Teacher salary increase 2020/21	To top up teacher salaries according to municipal discretion.	SEK 3 billion
Teaching assistants	To employ more teaching assistants to give teachers an increased opportunity to focus on teaching.	SEK 500 million
Practical research and development 2021/22	To give teachers with postgraduate education the opportunity to use part of their working time for practical research and development work in an effort to strengthen the scientific basis of education.	SEK 25 million
Better working environment/conditions for teachers in socio-economically vulnerable areas	To introduce, strengthen or maintain additional measures aiming to improve the working environment and working conditions for teachers in school units with socio-economic challenges.	SEK 385 million

Source: Skolverket (2021<sub>[18]</sub>), Statsbidragskalendem 2021 [Government grant calendar 2021], website of the National Agency for Education, https://www.skolverket.se/skolutveckling/statsbidrag/statsbidragskalendern [accessed on 25 October 2021].

In 2020, Sweden also introduced enhancements to the income-and-cost equalisation regime. These adjustments aim to better account for higher costs related to sparse and declining populations and socio-economic differences, including those related to the reception of refugees. Further efforts to take socio-economic criteria into account when addressing cost disparities, although agreed in principle, have been placed on hold as they were seen as duplicating the intentions of the compensatory grant recommended by the School Commission (OECD, 2019[8]).

## Key challenges for school funding in Sweden in terms of quality, equity and efficiency

Quality, equity and efficiency should be key priorities in any area of education policy for governments, policy makers and the wider public alike. In the Swedish context, assessing the current school funding

model with these three priorities in mind brings to light three principle challenges which policy makers will need to address moving forward. These challenges are ensuring that financial investments have an impact on quality educational outcomes, targeting resources effectively to help reverse declining equity trends and, finding gains in educational and financial efficiency to support sustainable improvement even in the face of wider structural changes. This section explores each of these challenges in turn. However, the priority pursuits of quality, equity and efficiency should not be viewed in isolation as there are important interrelationships between the three which can help promote mutually beneficial approaches.

The link between educational expenditure and quality outcomes needs strengthening

When the first international assessments of student outcomes were administered in the 1990s and early 2000s, Sweden counted among the top performing school systems internationally. However, there followed a prolonged period of steady decline with 15-year-olds' performance in reading, mathematics and science falling to below the OECD average by the Programme for International Student Assessment (PISA) 2012 (see Figure 3). The same trend was seen among younger students: in the Trends in International Mathematics and Science Study (TIMMS), students in Grades 4 and 8 in Sweden were performing below the OECD average in mathematics by 2007 and in science by 2011. Meanwhile, in the Progress in International Reading Literacy Study (PIRLS), although students in Grade 4 in Sweden continued to perform above the OECD average for reading, the results mirrored the downward trend viewed across other international assessments (Henrekson and Jävervall, 2016[19]). Since 2011 (TIMMS and PIRLS) and 2012 (PISA), academic outcomes have been improving steadily in Sweden and in PISA 2018, mean performance was once again above the OECD average in all three disciplines. Nevertheless, average outcomes remain well below historic levels.

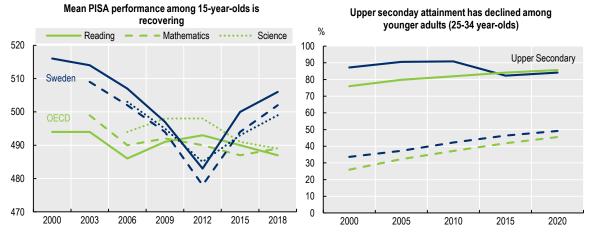


Figure 3. Trends in education outcomes in Sweden 2000-2020

Source: OECD (2019<sub>[20]</sub>), PISA 2018 Results (Volume I): What Students Know and Can Do, PISA, OECD Publishing, Paris, https://doi.org/10.1787/5f07c754-en; OECD (2021[7]), Education at a Glance 2021: OECD Indicators, OECD Publishing, https://doi.org/10.1787/b35a14e5-en.

Over the same period, Sweden has also experienced challenges to educational attainment. Almost uniquely among OECD countries, over the last decade (2010-20), the share of 25-34 year-olds in Sweden attaining education to at least upper secondary level has declined and now sits below the OECD average (see Figure 4). First-time graduation rates from upper secondary education have also declined over this period, with 70% of students below the age of 25 enrolled in upper secondary education graduating for the first time in Sweden in 2018 compared to 80% on average across the OECD. This has important consequences for young people: employment rates among those with at least an upper secondary

qualification in Sweden are 21 percentage points higher than those without (OECD, 2021[7]). It also has financial implications for the system and economic implications for wider society, as those that do not attain upper secondary education the first time are more likely to be neither employed nor in education or training.

Sweden's quality challenge cannot be addressed by reforms to school funding alone. Nevertheless, it is clear that there is scope to strengthen the relationship between the level of investment in the school system and learner outcomes. Indeed, over the last two decades, a high and growing level of expenditure in Sweden has not resulted in a parallel increase in academic outcomes, although the situation is more positive in the final quarter of that period. Internationally, OECD analysis has indicated that differences in education spending explain about 25% of the variance in average student performance (OECD, 2016[3]).

However, in Sweden, econometric analysis indicates that per-student spending, when controlling for socio-economic characteristics, has no significant impact on students' results (André, Pareliussen and Hwang, 2019[21]). In contrast, there are education systems across the OECD that appear to have better associated increased investment with improved outcomes. This includes high-performing systems (e.g. Estonia) and rapidly improving systems (e.g. Portugal and Poland), as well as some more modest improvements for countries starting from a similar investment base to Sweden (e.g. Denmark and the United Kingdom) (see Figure 4).

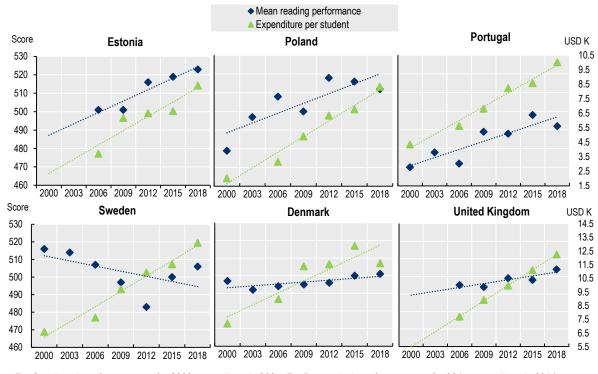


Figure 4. Changes in education investment and performance in selected OECD countries (2000-18)

Note: For Sweden, the reference year for 2006 expenditure is 2005. For Denmark, the reference year for 2015 expenditure is 2014. Source: OECD (2019<sub>[20]</sub>), PISA 2018 Results (Volume I): What Students Know and Can Do, PISA, OECD Publishing, Paris, https://doi.org/10.1787/5f07c754-en; OECD (2021<sub>[7]</sub>), Education at a Glance 2021: OECD Indicators, OECD Publishing, https://doi.org/10.1787/b35a14e5-en.

The challenge of tying educational outcomes to investment is not unique to Sweden. To confront this challenge, the OECD has previously emphasised that education systems need to develop a whole-of-system approach to school funding that explicitly links budget planning to strategic educational objectives. Through this, the aim would be to provide actors across the system with a clearer picture of where public funding is spent in order to facilitate the allocation of funding according to policy priorities and to make it easier to monitor spending against the achievement of policy objectives (OECD, 2017<sub>[22]</sub>). Moves within Sweden to increase national responsibility for school funding, such as the School Commission's recommendations and the current Commission's mandate, could help to strengthen this whole-of-system approach.

However, recentralisation is not synonymous with coherent governance and, with Sweden investing increasingly in education to support rising costs for municipalities, more will need to be done-particularly in terms of careful implementation and evaluation-to strengthen the impact of investment on school outcomes in Sweden in the future.

Funding reforms must address growing inequities between students, schools and regions

Sweden has several system-level policies in place that are conducive to educational equity, such as low grade repetition, delayed tracking and limited ability grouping. Nevertheless, educational inequities have been rising over the last decade, mirroring demographic changes and rising income inequality. Since the early 2000s, the gap between the highest- and lowest-performing students in Sweden has been widening, and socio-economic factors, such as immigrant origin and parental education, increasingly affect grades (OECD, 2019[8]; School Commission, 2017[15]). In PISA 2018, students' socio-economic backgrounds explained 11% of the total variation in reading performance in Sweden, which, although below the OECD average of 12%, is the highest among the Nordic systems, where the share ranges from 10% (Denmark) to 7% (Iceland). Furthermore, disadvantaged students in Sweden are 2.83 times more likely than their non-disadvantaged peers to not reach minimum proficiency in reading (below PISA level 2), compared to 2.70 on average across the OECD.

National data also indicate considerable intermunicipal differences in educational outcomes, adding a geographical element to inequities. For example, in 2019, while on average across the country 73% of students in Grade 9 achieved pass grades in all subjects, at municipal level averages varied from 45% (Vingåker) to 96% (Älvsbyn) (Boman, 2021[23]). Econometric analysis indicates that a higher share of students with adequate grades in all subjects was positively correlated with the share of highly educated inhabitants in the municipality and the share of certified teachers. On the other hand, considerable negative correlations were identified between student outcomes and the share of inhabitants receiving social welfare, as well as those with immigrant status (Boman, 2021[23]).

These correlations are particularly important because, although social, demographic and economic inequalities between regions are low in Sweden compared to most other OECD countries, they have been rising over the past decades (OECD, 2021[6]). Without successful compensatory efforts, educational inequities are thus likely to increase further.

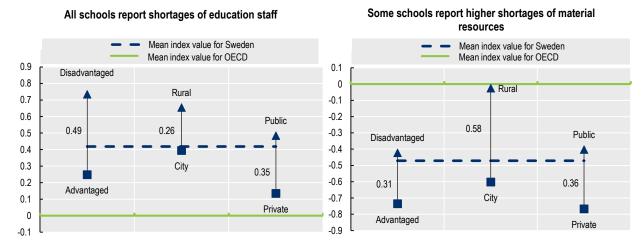
In 2017, the School Commission concluded that, in general, resources are allocated to schools with too little account of socio-economic differences in the student base, which in turn generates gaps in the provision of compensatory measures required (School Commission, 2017<sub>[15]</sub>). Evidence from PISA 2018 appears to corroborate this, as human and material resources in Sweden are not effectively directed to the schools that need them most. For example, although staff shortages are felt universally across Swedish schools, they are more keenly felt in schools with typically more vulnerable learners (see Figure 5). This is particularly notable given that, in Sweden, quality teacher support had the strongest positive correlation with academic resilience (i.e. the share of disadvantaged students who are high performers) among the 14 factors tested in PISA 2018. Although shortage of educational materials was not generally a concern in Sweden, school leaders in rural and public schools were significantly more likely to report shortages than their counterparts in city or private schools.

Effectively targeting additional resources towards disadvantaged students and schools or other vulnerable learners is essential to achieving greater educational equity, as well as enhancing learner and system resilience over the longer term (OECD, 2018[24]). From 2008-19, many education systems across the OECD, including Sweden, introduced targeted support to certain population subgroups-predominantly the socio-economically disadvantaged-often through improving the quantity and quality of human resources available to support these groups (OECD, 2019[16]).

However, in Sweden, these compensatory efforts by state authorities have been piecemeal, and seem to have complicated and fragmented school funding approaches further. Fiscal decentralisation itself is not necessarily to blame for growing inequities: there is no systematic evidence regarding the link between decentralisation of education funding and inequality in outcomes across countries (Kim and Dougherty, 2018[11]). Indeed, centralised monitoring and constructive accountability can be enough to overcome equity concerns while equalisation transfers may sufficiently guarantee a minimum level of public services to better cater to the needs of the entire population (Dougherty and Phillips, 2019[25]). Moving forward, whatever the direction school funding policy takes, it is clear that Sweden will need to make needs-based approaches and their careful implementation, monitoring and evaluation a priority.

Figure 5. Educational resources are not effectively distributed according to need

School leaders' reports in PISA 2018



Source: OECD (2020<sub>[3]</sub>), PISA 2018 Results (Volume V): Effective Policies, Successful Schools, PISA, OECD Publishing, Paris, https://doi.org/10.1787/ca768d40-en.

## As fiscal pressure mounts, Sweden must seek opportunities to increase efficiency

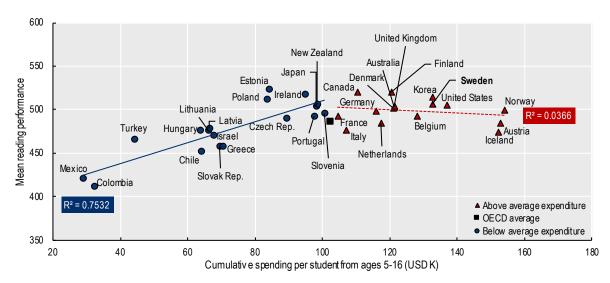
Across OECD countries, school education is costly, and increasingly so. As the majority of education funding comes from public budgets, improving efficiency, both in economic and educational terms, is a key concern for policy makers and the wider public. From 2008-19, 13 of 29 OECD member and non-member countries surveyed, including Sweden, identified improving the efficiency of resource use as a key policy priority for their education system. In its country-based analysis across the period, the OECD identified this as a priority for 16 education systems, including Sweden (OECD, 2019[16]).

OECD data indicate that many education systems are not currently managing their resources as efficiently as they could. While a certain level of minimum spending does appear to be necessary for ensuring high-quality education provision, more investment beyond that is no guarantee of better outcomes, and the overall level of school funding does not seem to be a key factor in the success of high-performing school systems (OECD, 2016<sub>[26]</sub>). More recent data reaffirm this principle and emphasise the efficiency challenge for higher-spending education systems: among below-average spenders, a positive correlation between per-student investment and student performance is visible; among above-average spenders, there is no statistically significant relationship (see Figure 6). This suggests that beyond a certain level of

investment, what matters more is not the aggregate level of expenditure, but rather the design of education policies, the mechanisms through which funds are allocated and how these determine where additional resources are channelled.

Figure 6. When it comes to education funding, more is not always better

Cumulative spending per student from ages 6 to 15 and reading performance, 2018



Note: Luxembourg has been removed as an outlier.

Source: OECD (2019<sub>[20]</sub>), PISA 2018 Results (Volume I): What Students Know and Can Do, PISA, OECD Publishing, Paris, https://doi.org/10.1787/5f07c754-en; OECD (2021<sub>[7]</sub>), Education at a Glance 2021: OECD Indicators, OECD Publishing, Paris, https://doi.org/10.1787/b35a14e5-en.

In Sweden specifically, as both the costs of education and student numbers rise, efficiency is likely to remain high on the policy agenda in the years to come. Already in 2019, prior to the COVID-19 pandemic, around one-quarter of Sweden's municipalities were in deficit. A growing share of young and old people is putting pressure on public services in many municipalities, and trends in immigration and internal migration exacerbate these challenges (OECD, 2019[8]). Up to 2017, steady economic growth generated strong tax revenue, supporting municipalities to navigate these higher dependency ratios. However, weakening activity has subsequently reduced income growth and pushed up expenditure, a situation which is likely to have been aggravated by the COVID-19 crisis (OECD, 2021[6]). Many municipalities therefore face considerable fiscal pressure going forward.

Nevertheless, fiscal decentralisation is typically associated in academic literature with greater responsiveness to local contexts and better co-ordination of economies of scale and scope across functions, both of which can promote more efficiency (Kim and Dougherty, 2018[11]). In the case of education specifically, studies indicate a robust positive relationship between fiscal decentralisation and the productive efficiency of public-good provision when there are adequate political and institutional environments, and sufficient decentralisation of expenditure and revenue powers (Kim and Dougherty, 2018[11]). Certainly in Sweden, the decentralisation reforms of the 1990s were motivated by a desire to promote competition and local rule to drive up quality and make schools more cost-effective (OECD, 2019[8]). However, in practice, the reforms coincided with economic downturn, reducing resources and, in turn, leaving teachers with more students per class and higher administrative workload, as well as less access to teacher training and lower salaries (OECD, 2019<sub>[8]</sub>). This has created important educational inefficiencies, as well as reducing the attractiveness of the profession and prompting teacher shortages over the longer term. At the same time, unclear funding strategies and responsibility structures, as well as

(in the many small municipalities in particular) a lack of expertise and scope for economies of scale have resulted in management inefficiencies (OECD, 2015[27]).

Clearly then, in the current Swedish context, the school funding model is not delivering maximum efficiency, neither in financial nor educational terms. Given the rising costs of education and the declining scope for many municipalities to raise funds through standard local taxation measures, any future reforms to school funding will need to carefully consider how they can be designed, enacted and sustained with a view to becoming more efficient.

## Core considerations for school funding reform in Sweden

Informed by the challenges outlined in the previous section, the rest of this policy brief proposes core considerations and their respective policy pointers for policy makers in Sweden to focus on when pursuing the design, implementation and evaluation of policies on school funding. They are guided by six key takeaways from international evidence for policy makers identified in the analysis undertaken as background for the *Policy Dialogues in Focus* (see Figure 7):

Figure 7. Key takeaways from international analysis on school funding reform



The core considerations presented in the remainder of this document are based on the discussions between senior policy makers and the OECD Secretariat at the Policy Dialogues in Focus, as well as further analysis undertaken by the Education Policy Outlook. They emphasise the importance of constructing school funding reform in Sweden upon a solid foundation of a needs-based, people-focused approach, built on long-term thinking and an evaluative mindset. As such, they can help guide Sweden's steps throughout the design, implementation, continuation and periodical adaptation of school funding reform.

## What should Sweden do to make school funding more effective, equitable and efficient?

Policy design elements of a school funding reform for Sweden are explored in this section. A well-designed policy is clearly justified and offers a logical and feasible solution to the policy problem. Ideally, the policy design is built on solid evidence and knowledge of the education system and its mechanisms of change, as well as the wider socio-economic, cultural and political context (Viennet and Pont, 2017[28]). At the same time, it should draw from international evidence of what has worked to address similar challenges in other contexts.

With this in mind, this core consideration offers three key policy pointers for action that policy makers will need to consider in order to help reform efforts address key challenges in a synergic manner. These policy pointers are: estimating a minimum cost of education per student, strategically rethinking governance structures and putting needs-based formula at the heart of school funding.

## Estimating a minimum cost per student for quality outcomes

As previously established, there is scope for Sweden to strengthen the relationship between the level of investment in the school system and learner performance. The link between growing expenditure on schooling in Sweden and improved outcomes is unclear at best. Well-intentioned efforts to redress growing inequities through increased earmarked funding from central government escalates both financial and administrative costs without a clear impact on educational outcomes. Furthermore, this compensatory approach may reduce the sense of accountability associated with base spending as municipalities and schools know they have the safety net of earmarked funds to fall back on. With escalating costs, growing dependency ratios and economic uncertainty in the context of COVID-19, this challenge risks being exacerbated in the future.

It is therefore crucial that Sweden pursue a school funding model that more explicitly links financial investment, budget planning and strategic educational objectives at system level. Central to this is the establishment of an estimated cost of educating each student to reach nationally agreed minimum outcomes, which recognises that different students require different levels of investment. This estimated cost would then become the central pillar of the school funding system. Thus, rather than starting with what resources are available, the system may start by asking itself what is needed by each individual student. There are many advantages to such an approach.

Firstly, establishing an estimated minimum cost can support the achievement of nationally agreed educational outcomes, albeit indirectly, through aligning the focus of funding policy and debate with issues of educational effectiveness (Gonski et al., 2011[29]). At the same time, ensuring periodic reviews of the cost estimate means it can be responsive to changing educational aspirations and targets over time. Furthermore, a clearly defined minimum spending per student can support outcomes-based budgeting and financial management across the system. This would apply even in a decentralised context, linking spending to more robust monitoring and accountability at every stage of resource raising, distribution and allocation. It can support actors across the system with a clearer picture of where public funding is spent to facilitate the allocation of funding according to policy priorities and to make it easier to monitor spending against the achievement of policy objectives (OECD, 2017[22]).

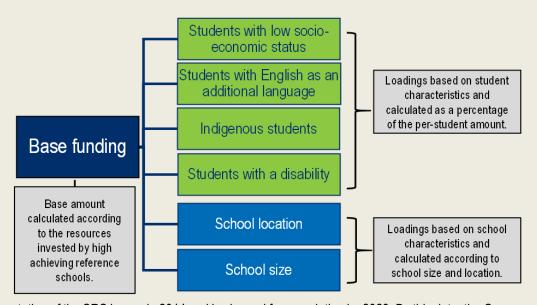
Secondly, this approach can be a powerful tool in the political economy of reform. The comprehensive analysis and empirical evidence required to establish an estimation of costs can help build a more compelling basis for policy decisions in school funding (OECD, 2017[22]). In addition, the improved data regarding the level of public funding required to give students the opportunity to achieve agreed outcomes can also help assure the wider public that educational investment is effective and efficient. Finally, ensuring greater transparency around the real cost of educating a student as opposed to the planned funding per student can be useful in building support for funding that is more equity-based.

Several countries have introduced such approaches to school funding in recent years. For example, Brazil has developed both an estimated cost of initial quality education per student that takes into account minimum conditions that a school must ensure regardless of location. Building on this as a starting point is an estimated cost of quality education per student which is aligned with more ambitious student outcomes. For Sweden, Australia provides a particularly useful example given that many of the key aims behind Australia's introduction of school funding reforms align with Sweden's aims at present, including a more needs-focused model with greater transparency and accountability (see Box 1).

## Box 1. Determining the efficient cost of schooling in Australia as a minimum funding allocation

In 2011, a high-profile review of school funding in Australia recommended far-reaching reforms to better promote transparency, fairness and equity, financial sustainability and accountability. A key recommendation was the introduction of a Schooling Resource Standard (SRS), an estimate of how much total public funding any school in Australia would require to meet its students' needs and the educational outcomes expected by the government. The SRS is not an aspirational target, but rather the minimum level of funding required by a school to ensure that 80% of students achieve learning outcomes that exceed minimum standard in national reading and numeracy assessments. The SRS consists of a base amount, calculated separately for primary and secondary levels, and six needs-based loadings that take into account the extra resources required to ensure that students with different needs or backgrounds meet the minimum standard. The SRS is indexed annually to keep in line with any increases to wages and prices; it is reviewed more comprehensively every three years.

## The design of Australia's Schooling Resource Standard



Implementation of the SRS began in 2014 and is planned for completion by 2029. By this date, the Commonwealth Government will fund consistent shares of the SRS across all schools within the same sector throughout the country. This will constitute 20% of the SRS for public schools and 80% for government-dependent private schools. State-level funding must meet the remaining share as a condition of receiving the Commonwealth funding. The Commonwealth and state-level systems are required to meet key implementation benchmarks across this extended period, prioritising changes for schools that are currently underfunded. Within these implementation benchmarks, states have the autonomy to develop their own implementation plans.

Sources: Independent Schools Council Of Australia (2017<sub>[30]</sub>), "The SRS Funding Model", Independent Update, Issue 13; Australian Government (2021[31]), What is the Schooling Resource Standard and how does it work? Department of Education, Skills and Employment, Canberra.

The development of a minimum estimated cost in Sweden would require three key steps. First, Sweden would need to select measures of student performance that can be used to identify adequate performance. Although this can be a contentious process, it is unavoidable in the development of an adequacy-based finance system. The range of educational outcomes taken into account should be suitably broad to encourage improvements in the quality and use of outcomes data by systems and schools (Gonski et al., 2011<sub>[29]</sub>). Then, to evaluate the costs of adequate provision, Sweden would need to identify benchmark schools across school sectors that have consistently achieved these performance outcomes over several years, to determine the required spending.

This would be also a valuable opportunity to consider both educational effectiveness and efficiency-the potential of a particular combination of school resources to provide desired outcomes-more closely (see below). Finally, having determined this base amount, Sweden would need to agree on how to adjust this in order to reflect different characteristics across students, schools and municipalities. This knowledge should then be formally integrated in school funding formula and decisions made about the role of central and municipal authorities in meeting the minimum costs (see below).

The estimation and then application of a minimum cost of education per student would require a high level of evaluative capacity. It would demand rich data about how resources are currently distributed and allocated, especially in relation to low-performing students and those with different types of educational disadvantage. Moreover, the Commission has been limited to proposing cost-neutral measures. Therefore, if the minimum costs of educating each students were estimated to require increased investment in the system, building political support for its application may be challenging. However, recognising the benefits this approach can have on all three of the priority areas for policy makers-quality, equity and efficiencyby establishing a clearer link between investment and outcomes, according to student need, estimating a minimum cost per student for quality outcomes could be a powerful first step in Sweden's school funding reforms.

#### Strategically rethinking the division of funding responsibilities within Sweden

In Sweden, multi-level governance of the school funding system has, as in other OECD countries, increased complexity and diversity. Furthermore, while there may have been some initial efficiency gains through fiscal decentralisation, changing demographics and capacity concerns, particularly in smaller municipalities, look to have resulted in intractable inefficiencies and growing inequities. As a result, there are direct tensions between responsiveness and transparency, consistency and perceived fairness within Sweden's school funding model. In recent years, Sweden has attempted to alleviate at least some of these tensions by increasing the role of the central government in school funding through expanding the share of earmarked grants available to municipalities. Nevertheless, this is not a sustainable solution: it risks negatively impacting administrative and educational efficiency and is not sufficient to address growing equity concerns.

Sweden therefore needs to fundamentally reassess the way in which responsibilities for school funding are shared across governance levels. This is not a new concept—the OECD and previous Swedish commissions have recommended shifting greater responsibility back to the central government (see Annex A. Previous key issues identified by the OECD for Sweden on school funding). Indeed, the Commission has been tasked with proposing such a model. Yet there are many possible ways of reorganising the governance of school funding that go beyond simply transferring a share of responsibility for raising and allocating school funds back to the centre. For example, the OECD has previously argued that, in Sweden, integrating a centrally set non-binding minimum funding norm into the national system for income equalisation between municipalities would better align school funding with needs and equity objectives, and would likely improve national average performance, as well as results in more disadvantaged schools (OECD, 2019<sub>[8]</sub>). The School Commission recommended increasing national responsibility for school funding by introducing a sector grant to municipalities which will constitute a large part, if not all, of municipal funding allocations to schools. It also proposed introducing a conditional state subsidy paid directly to school units and based on socio-economic conditions (School Commission, 2017[15]).

Other options are also available. Sweden is not alone in questioning its school funding governance model and could take inspiration from education systems which have reorganised highly decentralised models in recent years in response to specific contextual challenges. For example, to accompany the introduction of the SRS, over the last decade, Australia has made efforts to move from highly heterogeneous funding systems, determined largely at state and territory level, to a more nationally consistent system through increasing the share of the Commonwealth government's responsibility for school funding from around 10% in 2011 to 20% by 2027, for public schools (see Annex B. Overview of school funding in Australia). England is also working to reduce heterogeneity by shifting the locus of responsibility back to central government, initially through stronger regulation with a view to transitioning to more fundamental changes in governance (see Box 2). Finally, rather than pursuing recentralisation, Denmark has sought to reduce atomisation or fragmentation and relieve inefficiencies by merging municipalities to enhance capacity and economies of scale. At the same time, Denmark has reformed accountability mechanisms to make it easier to monitor individual municipalities' spending (Nusche et al., 2016<sub>[32]</sub>).

However, Sweden should not be looking to replicate models seen elsewhere, nor to simply hand back a nominal share of responsibility to central government because local responsibility no longer appears to be effective. Rather, a strategic rethinking of multi-level governance would imply that Sweden carefully examine the national context to determine a revised distribution of responsibilities according to what aspects of school funding require local intelligence or should be locally responsive, and what aspects need to be nationally consistent, stable over time, or should have maximum transparency or perceived fairness. These decisions should be taken within the framework of Sweden's wider and longer-term goals for the system as a whole, and particularly in terms of how those relate to enhancing quality, equity and efficiency. In addition, such decisions need to consider the specific contextual realities of the various authorities involved, their capacities and their available resources; in this way, stakeholders from across administrative levels will need to be involved in the process (see below).

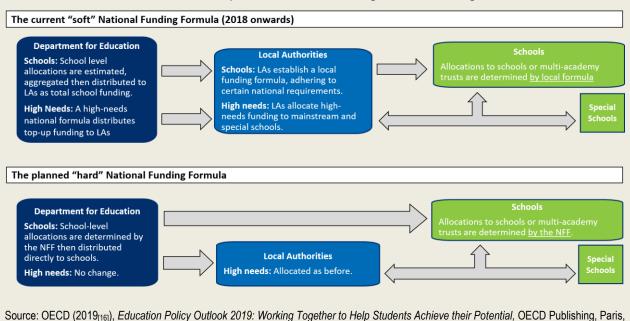
There are several challenges to enacting a rebalancing of the governance of school funding in Sweden. Firstly, as municipalities currently have considerable authority over both raising and spending powers, any efforts to shift responsibility back to the central government will require a reorganisation of both the raising and allocation of funds for education. This could imply significant and far-reaching changes to taxation approaches in Sweden. Secondly, although a lack of local capacity, particularly in smaller municipalities, is often cited as a reason for transferring a share of the powers to central level, it is crucial to recognise that this would imply a considerable increase in the demands placed on administrative and fiscal management capacity within central authorities. Finally, as any changes to the governance model will likely diminish the powers of certain actors, ensuring stakeholder buy-in across the system for such changes will be challenging. Nevertheless, a strategic rethinking of funding responsibilities in Sweden is necessary to ensure that school funding reforms have a sufficient and sustainable effect on quality, equity and efficiency that goes beyond the more piecemeal compensatory efforts of previous years.

## Box 2. Increasing national consistency in school funding in England

Prior to 2018, England's Local Authorities (LAs) had considerable discretion over funding allocations to schools. These were often based on historic trends and locally developed funding formula. As such, schools serving students with similar characteristics could attract significantly different levels of funding, often based on out-of-date data. In response, England developed a major reform of school funding aiming to enhance fairness, simplicity and transparency, and predictability and efficiency. In 2018/19, England introduced a single National Funding Formula (NFF) based on student and school characteristics with a small provision for local variation, to determine the distribution of funds from national level to local level. This has been initially implemented as a "soft NFF" with the aim of transitioning to a hard NFF in the near future (see diagram below).

Under the current "soft" NFF, although LAs retain administrative discretion to apply their own funding formula to allocate funds to individual schools, they have been actively encouraged to align their allocation approaches to the NFF model. For example, centrally determined regulations rule that certain factors used in the NFF must be incorporated into local formulas; for some, the cash value of the factor must also mirror the NFF. As of 2021/22, the Department for Education (DfE) estimated that 70% of LAs had moved all of their factor values in the local formula closer to the NFF since 2018 while just under half were considered to be mirroring the NFF almost exactly. However, some local formulas remain significantly different from the NFF. Under the intended "hard" NFF, all core school funding will pass directly from central government to schools or multi-academy trusts, removing the existence of the local funding formula entirely. Under this system, LAs would maintain administrative responsibility for high-needs funding, which is seen to require more local intelligence and flexibility. No clear date for achieving this has yet been set and England continues to pursue a "soft" approach to enhance alignment gradually and support a smoother transition. This includes imposing further requirements on local formulas which will ensure they more closely mirror the NFF.

## The current and planned school funding models for England



https://doi.org/10.1787/2b8ad56e-en; Department for Education (2021[33]), Fair school funding for all: completing our reforms to the National UK https://consult.education.gov.uk/funding-policy-unit/completing-our-reforms-to-the-Formula, Government, nff/supporting\_documents/Fair%20Funding%20For%20All%20Consultation.pdf; Education & Skills Funding Agency (2021[34]), Guidance: Schools block funding formulas 2021 to 2022, UK Government website, https://www.gov.uk/government/publications/schools-block-fundingformulae-2021-to-2022/schools-block-funding-formulae-2021-to-2022.

Putting formula funding at the heart of a needs-based school funding model

As explained previously, the overall amount spent on education and the expenditure per school student in Sweden are above the OECD averages, yet funding approaches do not appear to reach those that need it most. However, determining the ways in which funds are not adequately matched to need is highly challenging in a system where funding strategies across municipalities are unclear. This lack of transparency is in many ways a symptom of the high level of fiscal decentralisation within Sweden's school funding model.

The allocation of funds to individual schools differs from municipality to municipality—in some cases, even within municipalities. The system also appears to lack capacity to systematically collect quality information about these different mechanisms and use that information for accountability or system improvement purposes. At the same time, as a result of wider structural developments, as well as inadequacies in the education system itself, inequities between students, schools and municipalities are growing. This makes the shift towards a more needs-focused system increasingly urgent.

These challenges call for Sweden to design and implement a more solidly needs-based approach to school funding. This approach requires a concerted and co-ordinated national effort to address equity challenges through funding arrangements, as well as increased transparency to support constructive fiscal accountability. Carefully designed funding formula should be at the heart of such an approach. It should build on the identified minimum estimated cost of education per student by varying that cost according to the specific needs of individual students, schools and municipalities.

Quality funding formula have the capacity to address Sweden's problems in several ways. Firstly, a well-defined and clearly communicated formula can establish the level of transparency required for funding approaches and sufficiency to be more thoroughly scrutinised and debated (Fazekas, 2012[35]). Facilitating debate in this way can also support consensus building among stakeholders (OECD, 2017<sub>[22]</sub>). Moreover, such a high degree of transparency can help provide good forecasting of public expenditure and a sense of predictability in funding from year to year, supporting authorities and schools to engage in more strategic planning (European Commission/Eurydice, 2001[36]).

Secondly, academic research into educational economics indicates that well-designed and transparent funding formulas are the key to addressing equity and efficiency simultaneously (Levačić, 2008[37]). Funding formulas can promote horizontal equity-by ensuring that similar funding levels are allocated to similar types of provision-and vertical equity-by ensuring that differential amounts can be allocated according to the assessed degree of educational need. Furthermore, although formula-based allocations should not be the sole source of distributed funds, the prioritisation of formulas to address equity issues can reduce the potential inefficiencies of addressing needs through targeted programmes, such as increased transaction costs, lack of co-ordination and risk of overlap or duplication (OECD, 2017[22]). Finally, if designed successfully, funding formulas can also perform a more directive function by promoting certain behaviours in funding recipients. By aligning with national priorities, funding formulas can therefore act as an incentivisation tool to support implementation of particular policies or priorities, thus helping the system to more efficiently meet key goals (OECD, 2018[38]).

It is perhaps for these reasons that funding formulas are popular across OECD education systems, particularly in contexts of decentralisation (Fazekas, 2012<sub>[35]</sub>; OECD, 2021<sub>[39]</sub>). In 2019, the use of a funding formula to allocate resources was the most common basis employed across all expenditure types in primary and lower secondary education, apart from capital expenditure. For example, for general school funding, of the 23 education systems for which the OECD has data, 18 used a funding formula; of them, seven education systems relied solely on formula to allocate funding to schools (e.g. Germany, Finland, Norway) (OECD, 2021<sub>[7]</sub>). The design of these funding formula, however, differs considerably between countries in terms of the types of criteria employed, the number of these criteria and their weightings (see Figure 8). Nevertheless, the OECD has found that when funding formulas are used, they tend to have a

substantial impact on the share of funding. Student- and school-based criteria are more commonly used than population characteristics for a certain area, and countries generally combine both (OECD, 2021<sub>[7]</sub>). In addition, systems appear to favour applying multiple criteria with smaller cost impacts than relying on only a few criteria with large impacts. This supports an approach which recognises the multi-dimensionality of inequity and disadvantage.

For Sweden, applying formulas to allocate public funding, including in the education sector, is not a new concept; such models exist at both central and municipal level. However, formulas are not yet acting as the founding pillar of a needs-based funding model: municipalities are encouraged, though not obliged, to apply equity-based formula and, at central level, equity issues have been addressed through targeted top-up funding rather than the formula. Putting a more comprehensive approach to formula funding at the heart of the school funding model in Sweden could more positively impact transparency, equity and efficiency.

Sweden first needs to decide how formulas can be integrated into either the current or a reformed distribution of governance responsibilities. For example, while maintaining a system in which majority responsibility for raising and allocating school funding lies with municipalities, Sweden could enhance the role of funding formulas by introducing clear national guidelines or requirements for their design, as in the case of England's "soft" NFF (see above). In addition, Sweden could enhance capacity for the monitoring and evaluation of the individual municipal formula. Alternatively, within a system in which a greater share of responsibility for school funding is transferred to central level, Sweden has the opportunity to employ funding formulas with a more comprehensive application of student- and school-based criteria at national level. If the second option is adopted, Sweden would need to consider how to ensure that these weightings are then reflected in the eventual transfers to individual institutions, even if these allocations remain under municipal authority.

■ Small share Medium share Large share Unknown share Disabilities (21) Immigrant background (16) Low income (14) Special subject offer (15) Remote or high-cost locations/regions (16) Poor or disadvantaged communities (11) Remote and/or rural locations (11) characteristics Minority communities (8) Population Disadvantaged communities (5) Low-income (6) Immigrant background (3)

Figure 8. Equity criteria in funding allocations to primary/lower secondary institutions (2019)

Note: The total number of countries reporting the use of this equity criteria is shown in brackets. Source: OECD (2021<sub>[7]</sub>), Education at a Glance 2021: OECD Indicators, OECD Publishing, Paris, https://doi.org/10.1787/b35a14e5-en.

The OECD has previously identified some key principles for designing effective funding formulas that could support Sweden as it embarks on embedding formulas at the heart of a reformed school funding model (OECD, 2017[22]). Firstly, education systems must align funding formulas with government policy and establish evaluation criteria accordingly. For Sweden, this means designing a national formula (or guidelines for local formulas) which strikes a balance between promoting, incentivising and holding actors to account for raising efficiency, equity, transparency and responsiveness. For example, within the Swedish context of extensive school choice, formulas can be designed to motivate schools to attract disadvantaged students, thus promoting equity objectives within a competitive framework (Fazekas, 2012[35]). However, such an approach would need to be carefully balanced with measures to ensure that formulas do not create perverse incentives such as segregating students with special educational needs or inflating certain data on student characteristics (OECD, 2018<sub>[38]</sub>).

Secondly, policy makers need to ensure funding formulas adequately reflect different per-student costs of providing education. For Sweden, this would usefully include:

- the basic allocation determined by the estimated minimum cost of education per student;
- an allocation for specific educational provision, such as specialised curriculum or vocational programmes;
- an allocation based on student characteristics of which socio-economic disadvantage and immigrant status would be particularly relevant; and,
- an allocation based on school characteristics, which may also be linked to the economic context of the municipality.

Judgements will also need to be made on the relative importance given to these different elements. At the same time, Sweden will need to seek a balance between a simple formula, which might fail to capture school needs with full accuracy, and a sophisticated formula, which may be difficult to understand and discuss.

## How can Sweden best ensure that school funding reform efforts achieve their goals?

Policy implementation matters too. As in any policy process, excellent design is not enough—a realistic and empathetic estimation of implementation costs and benefits, as well as an awareness of how to manage the political economy of funding reform are also crucial (OECD, 2017[22]). At the heart of this is careful timing: studies of implementation processes suggest that too quick a pace will leave key implementation actors behind or disillusioned; too slow a pace and they may lose the momentum or resources required to bring policy goals to fruition (Viennet and Pont, 2017[28]). Indeed, OECD analysis of Sweden's decentralisation reforms of the 1990s concludes that a sudden shift in governance relationships left no time for municipalities to take ownership of the reform (Burns, Köster and Fuster, 2016<sub>[40]</sub>). The Education Policy Outlook has previously identified that, when undertaking system-level reforms, allowing sufficient time for gradual development and implementation seem key, as this enables stakeholders to be fully engaged across the process and to more effectively implement new processes according to local contexts (OECD, 2019[16]).

At the Policy Dialogues in Focus, policy makers from across peer education systems agreed that a long-term mindset is crucial when pursuing school funding reforms. In Australia, recognising that school funding reform causes turbulence for actors at local level, national politicians have adopted an incremental approach, taking stock of changes each year. The reforms are expected to take two decades. Likewise in England, it is expected to be at least a decade before the "hard" NFF will have been fully realised, and the government has thus far avoided imposing a deadline, favouring a gradual approach for a smoother transition.

Whatever school funding reform process Sweden undertakes, a multi-year implementation strategy which transcends electoral timeframes will therefore be crucial. This approach can be particularly valuable when long-term policy goals are broken down into shorter-term actions and sub-actions with concrete outputs (OECD, 2019[16]). At the same time, people must be at the heart of this implementation strategy. Education policies are put into action by individuals and organisations across all levels of the system, and their interactions, personalities and competencies determine the direction of enactment. This creates a level of

complexity that modern governance must respond to by focusing on the human element of policy processes.

In the context of school funding reform in Sweden, adopting a people-centred approach to implementation requires: comprehensive stakeholder involvement, whole-of-system strategic thinking and sustained capacity building; the rest of this section explores each of these approaches in more detail.

Getting all stakeholders on board and keeping them there over time

In any change to school funding arrangements, there will be winners and losers. In particular, funding reforms can cause tension between different levels of government, risking a less faithful interpretation of national policy goals at local level. This dynamic exacerbates an already complex reform process. Therefore, as Sweden looks to implement reforms to school funding, policy makers and politicians at central level must commit to engaging in comprehensive stakeholder involvement, investing time and resources into bringing all interested parties on board with the reform's aims and maintaining their support throughout a prolonged reform process. This comprehensive stakeholder engagement has three key approaches at its heart:

- Build together a shared vision from the start. OECD analysis finds that the successful implementation of efforts to improve school systems requires clear, measurable, ambitious but feasible goals focused on student outcomes that are, crucially, shared by all concerned parties (OECD, 2010<sub>[41]</sub>). In funding reforms specifically, building a shared understanding of a country's strategic vision for educational improvement can increase the coherence of resource distribution and allocation, as well as budget planning activities across the education system (OECD, 2017<sub>[22]</sub>). In part, Sweden can pursue this shared vision through strengthening communication of the reform's vision and mission to make sure all stakeholders have an understanding of the goals and purposes of the reform and take aligned action (Burns, Köster and Fuster, 2016<sub>[40]</sub>). However, it will also require a more inclusive, pro-active approach on central government's part, through which stakeholders are engaged in the policy design process. This can considerably limit opposition during the implementation process, strengthening alignment between policy goals and realities and avoiding a superficial implementation. It also generates legitimacy and creates ownership of planned actions among those implementing the policy, minimising the threat of reform fatigue and resistance to change ((Burns, Köster and Fuster, 2016[40])). Sweden is well-placed to pursue such an approach building on the widespread public acceptance of a growing educational equity challenge, along with quality analyses of the school funding system by this and previous Commissions, as well as the OECD (see Annex A. Previous key issues identified by the OECD for Sweden on school funding).
- Establish and maintain a commitment to transparency. From the start, policy makers need to be honest about who the winners and losers of a funding reform will be, both in financial and professional terms. Moreover, these assessments will need to be revisited, revised and recommunicated throughout implementation. In Sweden, shifting the locus of responsibility for spending decisions may undermine current authority arrangements at the local or school level. In addition, moving from earmarked funding streams to needs-based formula will likely shift the distribution of targeted equity resources. Where the consequences of this can be predicted, they should be communicated early. For example, as the Czech Republic introduced changes to school funding in 2020, in the preceding year, the Ministry held seminars across all regions for school representatives and regional and municipal administrators, established an online platform for the reform with presentations from these seminars along with legislation and other related documentation, and developed online mathematical models via which schools could estimate changes to their allocations. The Ministry itself then published detailed information, calculations and data about how each of the 8 000 concerned schools would be affected (OECD, 2020[42]). In

Sweden, as well as communicating changes, efforts could be made-at least in the short term-to prioritise the transition process for the "winners" while providing a longer adaptation period for the "losers", or finding other ways to compensate them. For example, as the Australian government committed to contributing 20% of the SRS to all schools, the implementation strategy planned for any state/territory currently receiving below that to come up to 20% by 2023, with those receiving above it to only come down to 20% by 2027. At the same time, compensation for losses of power can be sought as roles and responsibilities are redefined (see below).

Promote dialogue among a variety of stakeholders throughout the policy process. Identifying and investigating the complex web of stakeholder views, interests and capacities is necessary to understand education policy implementation, gauge the perceived fairness of an allocation system and ensure that the design and implementation of new funding mechanisms respond to challenges that were not anticipated (Viennet and Pont, 2017<sub>[28]</sub>; OECD, 2017<sub>[22]</sub>). Key to this is maintaining a consistent and inclusive dialogue with stakeholders throughout the implementation process. Four years into funding reforms in England, for instance, the government continues to hold regular online consultations on proposed next steps in the design and implementation of the "hard" NFF. While national dialogue can be useful, in Sweden, where the actors involved at each level of implementation may vary from one municipality to the next, pro-active efforts on the part of central government to engage with local actors in their local area through discussions and workshops could offer deeper insight into the reality of practitioners' implementation activities, along with access to local knowledge regarding potential barriers and advantages for policy implementation in specific contexts (Burns, Köster and Fuster, 2016[40]). Maintaining this throughout the reform process could allow policy makers to avoid obstacles or having to change course if some planned measures do not align with local needs. OECD analysis of previous system-level reforms indicates in particular that Sweden will need to avoid superficial attempts to engage stakeholders that do not fully deliver on the promise of the processes. These tend to engender frustration and can lead to future resistance (Burns, Köster and Fuster, 2016<sub>[40]</sub>).

Practising whole-of-system thinking to optimise dynamics between people and processes

All policy reform efforts bring with them changes in the way people and processes interact. As such, once decisions about the goals and design of reforms have been made, they need to be supported by adequate institutional and regulatory frameworks that optimise the new role of each actor. This is particularly true in contexts of multi-level governance (OECD, 2017[22]). At the same time, various contextual determinants, such as institutional settings, existing policies and wider societal and cultural realities will influence reform implementation in any given education system (Viennet and Pont, 2017<sub>[28]</sub>). In order to take advantage of system dynamics and avoid any potential negative implications, Sweden will therefore need to adopt a whole-of-system approach, considering the different elements and actors that may be affected by policy problems to a greater or lesser extent, as well as their dynamics and interactions (OECD, 2019[16]). This entails two main approaches:

Clarify new and revised roles and responsibilities. Any policy process requires clarity and visibility regarding who is supposed to implement what, who is responsible for any eventual missteps, and how the division of labour can serve to support the policy's aims. Failing to establish these clear lines of responsibility from the start can impede implementation and waste resources. For example, when the Netherlands introduced a performance-based budget line for school funding (see Annex A. Previous key issues identified by the OECD for Sweden on school funding), the government reached an agreement with representative bodies on the conditions with which schools would have to comply. However, upon implementation of the reform, individual schools were held accountable for their use of funds. This misalignment between the actors involved in the agreements and those enacting them meant that the government had a serious lack of leverage when trying to sanction the misuse of funds. As well as avoiding costly misalignments, in a context

where processes are hindered by fragmented responsibilities for different parts of the school network (as appears to be the case in Sweden's current school funding model) a clearer division of labour can serve to facilitate more efficient planning and oversight, reducing undesired competition and promoting constructive collaboration (OECD, 2018[38]). For Sweden, therefore, clearly defining reformed roles and responsibilities will be essential in successfully negotiating a changed relationship between state and municipalities. This can be achieved through the implementation strategy, the policy statute and through the revision of the description of professional or organisation functions. The redrawing of roles and responsibilities can also more strategically support the implementation of the policy either by assigning roles to implementing agencies based on their level of support for the policy, or using the redefinition of roles and responsibilities to compensate those who may perceive themselves to be reform "losers".

Pursue coherence and complementarity between system structures and processes. Institutional, policy and societal contexts can work to constrain or facilitate the implementation process in a given education system (Viennet and Pont, 2017[28]). Therefore, developing a whole-of-system approach to school funding that balances potential tensions and capitalises on pre-existing interactions is key. To achieve this, Sweden will need to reflect on both old and new governance structures and processes, revising rules and regulations, internal procedures and existing funding mechanisms and norms. In particular, this will support Swedish policy makers to resolve tensions between potentially conflicting forces, such as accountability and trust between governance levels, consensus building and making difficult choices, or local responsiveness and national consistency. Previous policy analysis by the Education Policy Outlook identified that some of the most interesting and successful examples of system-level reform occur when whole-ofsystem thinking allows initiatives in one area of school policy, such as school evaluation or teacher appraisal, to be carefully aligned with wider-reaching initiatives such as governance, funding arrangements, or curricular reforms. This encourages greater stakeholder buy-in and engagement supporting implementation (OECD, 2019[16]). For example, in Australia, ongoing funding reforms are linked to broader school improvement efforts: the Commonwealth Government has a bilateral agreement with each state/territory which ties the distribution of school funding to the condition that states work with national government on common objectives within the remit of the National School Reform agreement, which sets out long-term goals for school education in Australia.

Building capacity in a multi-dimensional way over the short, medium and long term

A key element of successful policy reform implementation is ensuring that local stakeholders have sufficient capacity to confront the challenges the policy aims to face (Burns, Köster and Fuster, 2016<sub>[40]</sub>). Capacity should be understood broadly. It incorporates adequate knowledge of educational policy goals and consequences, the ownership and willingness to make the change, the resources required to meet new demands, and the skills and tools to apply these elements in order to implement the reform as planned.

There is no doubt that successful capacity building can have a considerable effect on the impact of policy reforms: for example, data from PISA 2015 indicates that student performance in science was higher in systems where the school leader has greater budgetary responsibility but only when the quality of educational leadership among these actors was above the OECD average (OECD, 2016[26]). As such, any successful policy implementation process will need to think carefully about how to provide different actors from across the system with effective and efficient ways to access and use knowledge in local contexts to achieve desired outcomes. With this in mind, Sweden should consider two main approaches to capacity building:

Commit to capacity building over the long term. Stakeholders' capacity needs must be assessed and the means for capacity building must be considered from the very beginning of a policy process, as opposed to being a reactive measure when something goes wrong (Burns,

Köster and Fuster, 2016<sub>[40]</sub>). At the same time, policy makers must recognise that needs will vary over time, from person to person and from governance level to governance level. As such, capacity-building initiatives need to adapt to the context in which they are applied and be flexible enough to respond to unexpected emerging phenomena and new knowledge (Burns, Köster and Fuster, 2016<sub>[40]</sub>). Moreover, capacity building takes time and therefore must be sustained over an extended period. This means providing punctual support through policy-specific training but also lasting support up to and beyond a reform's completion, including through integration of related capacity building into formal training programmes, system processes and knowledge tools. For example, in Portugal, as part of efforts to improve the efficiency of school funding, the Institute for the Management of Educational Finance (2015) was established. The Institute developed various digital initiatives to support the financial management of schools and educational services, including a digital platform that aims to improve accessibility, quality and utility of information and accompanying mobile applications for ease of use. Digital tools have also been developed to support financial planning, including a predictive analysis platform for financial and budgetary evolution and a tool for monitoring school resource contracts with municipalities (OECD, 2019[16]). In Sweden, where reforms are likely to result in a considerable increase in capacity demands at central level, policy makers should consider how system architecture may need to ensure professional capacity at this level. In addition, there is much scope to improve capacity among municipal authorities and school leaders, whether or not their roles change substantially.

Embed both vertical and horizontal approaches. Capacity building can occur vertically (i.e. through interventions from one governance level to another) and horizontally (i.e. sharing experiences and knowledge between actors within the same governance level) (Burns, Köster and Fuster, 2016<sub>[40]</sub>). Vertical approaches offer a more formal opportunity to identify and respond to specific needs. In particular, the central level must work closely with local authorities and practitioners and other stakeholders in order to match efforts to need succesfully. In Sweden, this was a missing component of the implementation of decentralisation reforms and it has been difficult for the system to catch up on initial failings. However, as Sweden looks to move some responsibility back to central level, it will also be important to consider vertical flows of capacity building, particularly knowledge sharing, from municipal to central levels. At the same time, as a system where many small, local authorities are responsible for the governance of school funding, horizontal approaches may be particularly useful in Sweden. Possible measures include the establishment of regional platforms to support municipalities to identify and share good practice and school leader networks dedicated to issues around financial and budget management. Central and municipal authorities should facilitate and incentivise such collaboration, including through establishing fora for exchange (in-person or online), or peer coaching and mentoring initiatives. The Education Policy Outlook has identified nurturing collaborative relationships of this nature as a policy pointer for systems looking to build resilience and responsiveness, highlighting the importance of allowing enough time for these collaborative relationships to develop and flourish (OECD, 2021[1]).

#### How will Sweden know reform processes are having their desired impact?

Also, policy evaluation efforts will need to be at the core of funding reform processes in Sweden, supporting enhanced practices and alignment with policy aims across the full policy cycle. Evaluating school funding mechanisms has several advantages for the system: it provides information on what a planned budget actually delivers beyond the intended use of resources; it helps to align the management and use of resources with stated purposes, requirements and regulations; it facilitates learning about the ways in which financial resources are used at different levels of the system and how this translates into outcomes for different groups of students, and; it offers insight into how resources could be used more efficiently and effectively (OECD, 2017[22]).

However, this commitment to evaluation demands considerable financial resources, as well as time and expertise, which can only be justified if the evaluation practices promote learning and improvement. This implies a need for the system as a whole, and actors across it, to adopt a mindset of evaluative thinking. In this way, evaluation can go beyond being a box-ticking exercise to being a fundamental part of the policy culture, linking the policy design, development, implementation and adjustment stages (Golden, 2020[44]).

Embedding a mindset of evaluative thinking to enhance processes across the education system is also a key transversal component of building more responsive and resilient education systems (OECD, 2021<sub>[1]</sub>). This culture takes a long time to develop and the OECD has previously noted that evaluative thinking that links schools funding and system quality is not common among member countries, who tend to focus on budgetary compliance or auditing (OECD, 2017<sub>[22]</sub>). To nurture an evaluative mindset at the service of system learning throughout the proposed funding reform, Sweden will therefore need to establish solid processes and procedures around two key evaluative approaches: accountability and policy evaluation.

Making fiscal accountability more nationally coherent and improvement-focused

Previous analysis indicates that a lack of effective accountability mechanisms and procedures has been one of the key challenges inhibiting the educational impact of Sweden's decentralisation reforms (OECD, 2015[27]). Therefore, when developing reforms to the school funding model, Sweden will need to manage tension between flexibility in using funds based on local judgements and accountability to maintain public confidence in the use of resources, particularly for equity purposes (OECD, 2017[22]). Other education systems with high levels of fiscal decentralisation have found this challenging.

The OECD reported that in Denmark, different accounting practices across local school systems made it difficult to compare municipal spending data and to effectively monitor the use of funding by municipalities and schools (Nusche et al., 2016[32]). To improve the quality and comparability of the information base, accountability structures and processes should therefore be based on well-defined national level indicator frameworks that can support a more systematic mapping of available information across municipal and institutional levels.

At the same time, in order to address key challenges and maintain the support of stakeholders even as their roles and responsibilities change, Sweden will need to ensure that accountability processes go beyond compliance to promote improvement and system learning. To facilitate the development of a more consistent and constructive approach to monitoring and accountability. Sweden will need to:

Strengthen accountability frameworks to consistently tie inputs to outcomes. To support a more systematic use of fiscal accountability across the system, and a more evidence-based approach to budget planning, actors across all levels of the system will need a shared understanding of how funding strategies align with policy objectives. In particular, establishing a framework for accountability that aligns inputs with processes and outcomes can make the use of funding more effective and foster greater transparency around the efficient use of public resources (OECD, 2017<sub>[22]</sub>). Modelling such practices from the national level can help promote similar good practices at sub-central levels. Indeed, participants in the Policy Dialogues in Focus noted that transparency needs to be a two-way process in order to foster more constructive accountability relationships between system actors. Since 2013, Austria has been implementing goal-oriented budgeting across the federal government, establishing a set of policy goals with specific quantitative and qualitative indicators to serve as a guideline for policy practices at federal and sub-national levels (OECD, 2019[16]). Nevertheless, where goal-oriented budget planning procedures are in place at the central level, these are not always adopted at sub-central levels of the administration, and measuring the results of sub-central spending may be further complicated by the technical complexity of defining common indicators and results (OECD, 2017[22]). As such, Sweden will need to capitalise on the greater transparency offered by a stronger use of funding formulas and the estimated per-student minimum cost of education to establish clear and practical common benchmarks that can be applied across the system. Regulatory frameworks can then ensure that fiscal planning, reporting and auditing at school, municipal and central level is based around these benchmarks. Such an approach can also support horizontal capacity building as it enables peers to better compare approaches and seek high-impact, transferable practices.

Develop accountability and monitoring processes that are improvement-focused. In many countries, the legislation and regulations governing sub-central fiscal autonomy have limited the scope of central oversight of funding processes to monitoring budgetary and regulatory compliance. In a revised system, Sweden will need to consider how to go beyond this to ensure that school funding is effectively used to support educational improvement. Other countries have developed new accountability processes with this in mind, particularly for targeted, needs-based funding. For example, in the Flemish Community of Belgium, where school boards have a high level of budgetary and fiscal autonomy, although secondary schools have considerable flexibility as to how to use the resources, since 2002 they must follow a three-year cycle of policy and planning in Year 1, evaluation in Year 2, and inspection in Year 3 (Nusche et al., 2015<sub>[45]</sub>). This improvement-focused monitoring and evaluation within a multi-year process takes account of the time it takes for funding to have an impact on performance and the administrative burden of reporting and transparency on institutional actors. At the same time, the cyclical nature recognises that adjustments and improvements are always possible. However, the more targeted funding streams are, the harder it is to comprehensively monitor their application in this way; this makes it even more important that Sweden moves away from the current reliance on earmarked funding. Furthermore, this approach to resource management would also require capacity building for strategic budget planning at all levels of the system.

Harnessing timely policy evaluation processes for system learning

In 2018, the Education Policy Outlook noted an emerging climate across the OECD in which more openness, innovation and transparency is demanded of the public sector. As such, it has become increasingly challenging for governments to spend large sums of public funds to implement policies if they are not demonstrably based on sound analysis of evidence and policy context (OECD, 2018[46]). In addition to monitoring and accountability mechanisms, then, policy evaluation processes are an essential tool for education policy makers in assessing the value of reforms, making future policy decisions and enhancing existing policies and practices (Golden, 2020[44]).

Policy evaluation must therefore go beyond specific programme impact evaluation to becoming a way of assessing value and progress throughout the policy process. Building in specific feedback loops within this timeframe can ensure that all aspects of a reform process are comprehensively questioned and evaluated (Golden, 2020[44]). At the same time, learning from evaluation requires evaluators and policy makers to be able to effectively disseminate their research In order to support actors across the system to use that information in their decision-making processes. To this end, when designing and implementing school funding reforms, Sweden should:

Engage in periodical reviews of funding mechanisms to assess the need for adjustments. Improving financial distribution requires regular, detailed analysis of the adequacy of funding and its effects on the quality of teaching, the efficiency of schools and the equity of education. As such, education systems must periodically assess the costs and adequacy of funding in general, as well as the specific elements that funding mechanisms aim to address, such as an equitable distribution according to student or institutional need (OECD, 2017<sub>[22]</sub>). For Sweden, components of the policy design can support this more formal review process: once a funding formula exists at national level, for example, or stronger guidelines and regulations are in place to shape municipal formulas, Sweden can more effectively evaluate the adequacy of needs-based allocations, criteria and weighting and their alignment with changing policy needs without the technical complexity and

administrative burden of examining over 200 separate local formulas. Furthermore, an estimated minimum cost of education can be periodically reviewed and updated in line with wider contextual and structural developments. This is important as funding models should not remain static over time and inadequate or outdated mechanisms may exacerbate inequities and inefficiencies. Analysis undertaken by the Education Policy Outlook of evaluation processes across education systems indicates that periodical reviews of this nature can be enhanced by involving the voices of a wide range of stakeholders and gathering a broad and diverse evidence base through a range of data collection approaches (Golden, 2020[44]; OECD, 2018[46]).

Promote learning through a more targeted and strategic dissemination of evidence. In order for policy evaluation processes to facilitate system learning and contribute to building a more resilient and responsive policy environment, evaluation actors need to strategically elevate the evidence and data they produce. This entails curating and synthesising information according to the needs of different audiences and striking a balance between over-simplification and excessive technical detail. The Education Policy Outlook has previously advised that, in the short term, the clarification of roles, aims and responsibilities of different actors and information sources can support this more targeted approach to dissemination while, over the medium term, information management systems and other digital tools will facilitate more tailored approaches (OECD, 2021<sub>[1]</sub>). In addition, dissemination should not be considered as just a top-down process, but also bottom-up and lateral. In this sense, it can be better used to signal priorities and scale up innovative, cost-effective and impactful local initiatives. There is a lot of scope for this in Sweden, as in other countries where sub-central authorities have considerable responsibility for funding allocation: variation in approaches and outcomes means that local authorities can learn from each other regarding the effectiveness of funding mechanisms (OECD, 2017[22]). In order to promote lateral flows of evidence, Sweden may also consider establishing professional networks or multi-stakeholder fora that foster co-operation between researchers, policy makers, municipal authorities and institutional staff that can act as knowledge brokers in order to consolidate evidence and facilitate its integration into budgeting processes (OECD, 2017[22]). Again, this should be an ongoing process and can start early. For example, Sweden could take advantage of the development of an estimated minimum cost of education per student to seek insights into how institutional financial management can be more efficient. Once reference schools have been established, there is an opportunity to explore how otherwise similar schools or districts achieve different outcomes with the same level of spending or the same outcomes with different levels of spending (Baker et al., 2020[47]).

## Annex A. Previous key issues identified by the OECD for Sweden on school funding

Publication	Key challenges	Recommendations
Improving Schools in Sweden: An OECD Perspective, 2015	The overall amount spent on education and expenditure per student are above the OECD average but funding approaches do not appear to reach those that need it most, and funding strategies are unclear across municipalities. Declining PISA results suggest that funds are not being spent as effectively as they could be.	Review current funding mechanisms to ensure that they effectively respond to objectives. Consider establishing national criteria or guidelines to ensure equity and consistency in school funding, principally through student funding formulas. Ensure that funding strategies are evaluated and support local authorities to enhance capacity to design and deliver programmes that target equity.
OECD Economic Surveys: Sweden 2015	Sweden currently struggles to attract the best students into teaching. Following decentralisation reforms, resources perpupil and teachers' wages fell. Many municipalities allocate insufficient resources to schools with a disadvantaged socio-economic mix of pupils. This should be addressed, if necessary, by more centralised control of school financing. Poor organisation, lack of expertise and unclear responsibilities are major issues in many municipalities. Much of the administrative burden facing teachers stems from central and local government interventions to regain control after student results started deteriorating.	Raise the attractiveness of teaching by increasing monetary incentives, offering clearer career paths, and improving teacher education. Increase support for struggling students, including immigrants, through early intervention and targeting resources based on socio-economic background. Ensure that education policy proposals are evidence-based, consistent over time, accepted by relevant stakeholders and implemented at a measured pace. Consider consolidating existing institutions in charge of advising on and supervising education policies into an education policy council.
Getting Skills Right: Sweden, 2016	Despite a long tradition of dialogue, co-ordination across actors at different administrative levels could be strengthened. National skills objectives are not always aligned to their local implementation and vice versa.	Establish bilateral agreements between national and subnational governments to clearly define stakeholders' mutual obligations, the assignment of powers of decision, the financial commitments (possibly in a multi-year budgeting perspective) and enforcement and accountability mechanisms.
OECD Economic Surveys: Sweden 2017	Important investments are needed in education and for the integration of refugees; Sweden's low public debt provides room for manoeuvre.	Continue to pursue prudent fiscal policy, while accommodating temporary immigration-related spending to facilitate integration. Enhance support and incentives for immigrants to learn Swedish.
OECD Economic Surveys: Sweden 2019	School segregation has intensified while compensatory funding has remained relatively constant. Schools with weaker pupil backgrounds lack qualified, experienced teachers and material resources. The central government lacks a regional structure to steer and develop schools, while many municipalities lack the necessary scale.	Introduce a non-binding minimum norm of school financing, integrated with the national income equalisation system, to better target funding towards disadvantaged groups. Develop a regional arm for school governance tasked with systematic quality improvement, local co-operation, continuous teacher training and inspections. Consider the socio-economic mix when investing in new schools and in school admissions.
OECD Economic Surveys: Sweden 2021	Across all areas of public service, the share of earmarked grants has increased. These can be narrowly targeted and short-term, inhibiting efficiency. The fiscal equalisation system is complex and generally perceived as lacking transparency. Although the system is reviewed every five or six years, interim monitoring and discussion is limited. Digital tools offer potential for providing better public services and raising efficiency, but capacity varies.	Limit the use of earmarked grants to strategic areas and avoid excessively narrowly targeted and short-term grants. Simplify the fiscal equalisation system and/or increase transparency. Introduce monitoring on an ongoing basis to facilitate adjustments. Develop further online public services delivery and enhance the public infrastructure for data and information sharing.

Note: This information draws from a desk-based compilation of previous OECD publications (subject to participation). It is intended for exploratory purposes to promote policy dialogue and should not be considered an evaluation of the country's progress on these recommendations. Causality should not be inferred either: while some actions taken by a country could correspond to previous OECD recommendations, the OECD acknowledges the value of internal and other external dynamics in promoting change in education systems. Sources: OECD (2015<sub>[27]</sub>) Improving Schools in Sweden: an OECD Perspective, OECD Publishing, https://www.oecd.org/education/school/ Improving-Schools-in-Sweden.pdf (accessed on 23 September 2021); OECD (2015[17]), OECD Economic Surveys: Sweden 2015, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco\_surveys-swe-2015-en; OECD (2016[48]), Getting Skills Right: Sweden, Getting Skills Right, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264265479-en; OECD (2017[49]), OECD Economic Surveys: Sweden 2017, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco\_surveys-swe-2017-en; OECD (20216), OECD Economic Surveys: Sweden 2021, OECD Publishing, Paris, https://dx.doi.org/10.1787/f61d0a54-en.

## Annex B. Overview of school funding in Australia

## Australia's equity indicators are in line with the average but performance is declining

In PISA 2018, 15-year-olds in Australia performed above the OECD average in reading and science, and similar to average in mathematics. However, in all three, performance has been declining across PISA cycles since first participation. Considerably higher shares of young Australian adults have attained at least upper secondary education (91%) than on average across the OECD (85%) and the same is true for tertiary (55% compared to 45%). Disadvantaged students scored 89 points lower than their advantaged peers in Australia, equalling the OECD-average difference. There was no significant score-difference for immigrant children, whereas across the OECD, non-immigrant students outperformed their immigrant peers by 24 score-points, after accounting for socio-economic status. The indices of social and academic isolation in Australian schools indicate a similar level of academic and social diversity as on average across the OECD.

## Australia favours formula funding but differences in school shortages call for improvements

Australia spends a higher share of national wealth on primary, secondary and post-secondary non-tertiary educational institutions than on average across the OECD (4.0% compared to 3.4% in 2018). Australia also dedicates a higher share of public expenditure to education at this level than the OECD average (9.2%, compared to 7.8%). This translates to USD 12 227 per full-time student at this level, per year, compared to an OECD average of USD 10 454 (OECD, 2021<sub>[7]</sub>).

In Australia, school funding responsibilities for expenditure and revenue are shared between federal and state levels. Around two-thirds of schools are public schools and one-third are government-dependent private schools. Federal government transfers account for around 18% of funds for government schools and 78% of funds for non-government schools, moving to 20% and 80% by 2023. This is transferred to the eight states or territories as a block grant calculated according to the Schooling Resource Standard formula, which calculates a base amount per student with six loadings according to student and school characteristics. Loadings were developed by calculating how much additional funding was required to help students in priority cohorts achieve their full potential. For non-government schools, the base amount is reduced by the estimated "capacity to contribute", calculated via a direct measure of parental income (2020). States and territories then allocate funds to schools through restricted block grants according to their own formula; since 2019, these must adhere to minimum funding requirements outlined in bilateral agreements with the federal government and set as a percentage of the School Resource Standard. In PISA 2018, school leaders in Australia did not generally report shortages of education material or staff, yet school leaders in disadvantaged schools, rural and public schools were more likely to report shortages than their counterparts in advantaged schools, city or private schools, by considerable margins.

#### Ongoing policy efforts to increase equity and transparency

Historically, Australia's school funding has faced equity and transparency concerns. This created a sense of social urgency and high visibility around policy efforts in this area, now ongoing for over a decade. Two high-profile reviews (2011, 2018) published recommendations for funding reforms that promote transparency, fairness, financial sustainability and excellent outcomes for all. In the first instance, recommendations included the design and implementation of a national standard as the basis for general recurrent funding of all schools at federal and state level, a common measure of need to inform allocations to government-dependent schools, and more strategic efforts to support disadvantaged students. Implementation has been ongoing across successive governments and continues, but particular progress has been made with regard to standardising allocation through the introduction of the Schooling Resource Standard, and more recently, efforts to establish a national measure of student outcomes to better understand the relationship between financial inputs and academic outcomes.

## Annex C. Overview of school funding in England (United Kingdom)

## Academic outcomes for students in England are stable but equity indicators are mixed

In PISA 2018, 15-year-olds in England performed above the OECD average in reading, mathematics and science. Performance has been stable over the long term, with recent improvements in mathematics. Higher-than-average shares of young adults in the United Kingdom have attained at least upper secondary education (88%, compared to 85%) and tertiary education (56%, compared to 45%). Disadvantaged students in England scored 82 points lower than their advantaged peers (OECD average difference: 89 points). Score differences for immigrant children were below average and disappeared when accounting for socio-economic status. Indicators of school segregation by academic ability are lower than average, but advantaged students are more concentrated within certain schools than on average across the OECD.

## The United Kingdom is a high spender but formulas help England match resources to need

The United Kingdom spends a higher share of national wealth on primary, secondary and post-secondary non-tertiary educational institutions than on average across the OECD (4.1%, compared to 3.4% in 2018) and also dedicates a higher share of public expenditure (8.3%, compared to 7.8%). This translates to USD 12 765 per full-time student at this level, per year, compared to an OECD average of USD 10 454. Total education expenditure grew at less than half the annual rate of OECD average growth, at 0.8% from 2012-18 compared to 1.9%. Despite some decline in student numbers, the growth in spending per student has also been lower than the OECD average, at 1.3% compared to 1.8% (OECD, 2021<sub>[7]</sub>).

Of public-funded schools in England, around 58% are under the responsibility of a local authority and 42% are under the authority of academy trusts. The majority of school spending comes from central government transfers to local authorities or academy trusts. Most (84%) is distributed through the Dedicated Schools Grant, of which the largest share is a restricted Schools Block grant based on a National Funding Formula. The formula calculates around 75% of the grant according to student numbers (a basic per-pupil amount by level of education), with the rest determined by school and student characteristics (e.g. pupil deprivation, low prior attainment). Each of England's 150 local authorities then allocates core funding to individual schools according to their own formula, which must follow certain national guidelines, including a minimum per-student spend. Academies are funded on the same basis as local authority schools (that is, according to their local funding formula), but academy trusts then have flexibility to move funding between their individual academies. In PISA 2018, school leaders in the United Kingdom did not generally report shortages of education material or staff. Nevertheless, those in disadvantaged schools and public schools were significantly more likely to report shortages than their counterparts in advantaged or private schools.

#### Recent efforts to simplify funding mechanisms

Over the last decade, England has introduced several reforms aiming to simplify school funding and make it more student- and needs-driven. In 2013, England introduced three blocks of funding in the transfers to local authorities (Early Years Block, Schools Block and High Needs Block) to promote transparency. However, local authorities maintained full discretion as to the allocation of funds to schools which (combined with the fact transfers were often based on historic characteristics) resulted in significant inter- and intra-regional variation (OECD, 2019[16]). Seeking greater consistency, England introduced the National Funding Formula (NFF) for the 2018-19 financial year. Originally intended to determine allocations directly to schools, a more gradual implementation model has been pursued, with authorities being actively encouraged to align their allocation approaches to the NFF (OECD, 2019[16]). In 2011, England introduced the Pupil Premium programme, providing schools with additional earmarked funding for each eligible enrolled student according to socio-economic criteria. Several evaluations have shown a positive impact on narrowing achievement gaps, and the programme has since been expanded (OECD, 2018[46]).

## Annex D. Overview of school funding in the Netherlands

## Attainment levels are high in the Netherlands but performance has been declining

In PISA 2018, 15-year-olds in the Netherlands performed around the OECD average in reading and above average in mathematics and science. However, in all three, performance has been declining across PISA cycles since first participation. Higher-than-average shares of young Dutch adults have attained at least upper secondary education (89%, compared to 85%) and tertiary (56%, compared to 45%). Disadvantaged students scored 88 points lower than their advantaged peers, similar to the average difference of 89 points. Score differences for immigrant children were also similar to average. While schools in the Netherlands appear to be more socially diverse than on average, the isolation indices for both low-achieving and high-achieving students suggest some academic segregation between schools (OECD, 2021<sub>[7]</sub>).

## Schools in the Netherlands directly receive funds, mostly on a lump-sum basis

The Netherlands spend a similar share of national wealth on primary, secondary and post-secondary non-tertiary educational institutions than on average across the OECD (3.5%, compared to 3.4% in 2018) and dedicate an equal share of public expenditure, at 7.8%. Nevertheless, this translates to USD 14 726 per full-time student at this level per year, compared to an OECD average of USD 10 454. Total education expenditure has grown at less than half the annual rate of OECD average growth, at 0.7% from 2012-18 compared to 1.9%. Despite some decline in student numbers, the growth rate in spending per student has also been below OECD average, at 1.3% compared to 1.8%.

In the Netherlands, around one-third of school students attend public schools, with two-thirds attending publically funded, privately run schools; the state funds them similarly. Almost all school funding is distributed on a lump-sum basis from central government to schools, calculated via a formula that takes into account students at risk of educational disadvantages measured through several variables. The allocation across different resource areas is at the full discretion of the school, although schools are not permitted to make profit. Schools must publish spending reports annually and the Education Inspectorate monitors whether they spend money responsibly. Around two-thirds of schools belong to a governing body that oversees at least one other school: in these cases, funding is transferred to the funding body and then divided across schools, generally according to student numbers. In PISA 2018, school leaders in the Netherlands did not generally report experiencing shortages of education material or staff and there were no significant differences in the reporting of shortages by school type or characteristics (OECD, 2020[3]).

#### Funding efforts to stimulate improvements in performance

Concerns relating to the performance of the Dutch school system-particularly in terms of declining outcomes and growing between-school segregation-have led to broad reflections regarding the school system in recent years (OECD, 2021[50]). Although these challenges may not be specifically linked to school funding, there have been funding reform efforts in response. From 2012, a 'performance budget' was introduced in primary and secondary education and secondary vocational education. In addition to the block grant, schools receive earmarked funding to spend on specific activities such as teaching of language and numeracy skills, science and technology, supporting the development of gifted students and the professional development of staff. Moreover, additional funding favouring disadvantaged schools with a high share of foreign-born students was introduced from 2016. Finally, in response to teacher shortages, additional funding to schools from 2018 has enabled them to increase teacher salaries (OECD, 2021[50]). In 2016, the OECD recommended that accountability structures for school boards needed substantial improvement, making their work, including financial management, more transparent. At the same time, efforts to systematically enhance the strategic leadership and budget management capacity of school boards would be required (OECD, 2016[51]).

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