Introduction

Without significantly greater efforts to deliver quality education, the prospects for more than 124 million children denied access to basic education and 250 million children and youth not learning the necessary skills are severely diminished. Their education underpins hope for improvements in health outcomes, economic growth, job creation and employment, security and environmental sustainability. The world’s governments know this, as do business and finance leaders, but sufficient action has not been taken to increase the scale and effectiveness of investments in education.

Some countries have shown that good progress is possible. At times starting from a very low base, governments in a number of low income countries have been able to increase access to education at unprecedented rates. The number of children of primary age that were out-of-school fell from close to 100 million to 58 million between 2000 and 2013. For basic education as a whole (including lower secondary), the number of out-of-school children fell from 196 to 124 million. And while quality improvements have been hard to achieve and at times setbacks emerge, examples of good progress in some developing countries are starting to arise.

Overall, however, the picture is less positive. While domestic spending on education has increased across the developing world -- mainly driven by economic growth and improved tax mobilization -- education’s share in government budgets has been declining in a number of key countries despite growing needs. And while international assistance for education grew strongly over most of the past decade, it declined by nearly 10 percent in recent years. Moreover, existing resources are often inefficiently allocated across and within countries, and do not reach those who need it most, with mixed results in terms of access and learning. A lack of consensus about policies and actions that can deliver accelerated progress, a limited understanding of financing needs and trade-offs, and a lack of high level political leadership are some of the factors that have held back progress.

The International Commission on Financing Global Education Opportunity is a major new global initiative engaging world leaders, policy makers and researchers to develop a renewed and compelling investment case and to identify financing pathways for achieving equal educational opportunity for children and young people. The Commission will bring together the best research and policy analysis on the actions and partnerships necessary to increase investment
in relevant learning outcomes in low and middle income countries. While the entire education system will be considered, the Commission will pay particular attention to the provision of pre-primary, primary and secondary education and their role in improving life chances and generating opportunities.

Findings will be summarized in a synthesis report, to be delivered by September 2016¹ and communicated to a broad audience. The process itself will engage policymakers from the outset.

This note lays out five proposed themes for the commission. The proposals are preliminary and will be finalized after discussion with commission members.

1. **The Case for Investment in Education.** What are the benefits? What is the impact of education on the economy and social goals, including on key SDGs? What will be the consequences of inaction?

2. **The Scale of the Challenge.** What are the key education challenges that need to be addressed as a matter of urgency? What factors have held back progress?

3. **Reforms Needed to Deliver Effective Education.** What will it take to accelerate progress? What systemic reforms, scaling up of good practices and innovations will be needed to improve the effectiveness and equity of education financing and delivery?

4. **Financing Needs to Achieve Education Goals.** What are realistic financing needs, taking into account implementation capacity? What additional costs are likely to be associated with efforts to reach marginalized children and children in conflict? How could alternative delivery models potentially help reduce costs?

5. **Sources of Finance and Financing Architecture.** What types of resources –domestic and external- could be mobilized in different country contexts and how could they be used to best effect?

In each of these areas, the goal is to synthesize and analyze results of existing and forthcoming research, and to expand evidence in a few key areas. The work will pay due attention to areas of debate in research findings and their policy implications. It will draw on advice from leading researchers and policy analysts on its synthesis and on dealing with unresolved areas of debate.

¹ This is 20 years on from the last major international commission, chaired by Jacques Delors, which delivered the report “Learning: The Treasure Within” in 1996. This was the second major international commission. The first “International Commission on the Development of Education” was established in 1972 and delivered the report “Learning to Be.”
1. The Case for Investment in Education

Economic and social returns to education are high, but not well documented or consistently used in making the case for greater efforts on quality and access.

Research on the impact of education on economic growth has adopted two approaches. The first estimates drivers of growth across countries and examines education as a factor explaining why some nations grow faster than others. Most studies use average years of schooling as the unit of analysis and assume a year of schooling delivers a constant increase in knowledge and skills. While the impact of years of schooling on economic growth has generally been positive, alternative measures using measures of learning rather than years of schooling produce much stronger effects (Hanushek & Woessmann 2015). Recent analysis also shows that inequality in the distribution of education is another important determinant of the impact of education on economic growth. Keeping the level of education constant, a more unequal distribution of education has a detrimental effect on growth rates (Castello-Climent 2013). If the poor are frozen out of quality education, both their own incomes and overall growth will suffer. In turn, education and its effects on economic outcomes also have significant bearing on global migration (Robles 2011; Zhu 2015; Rao 2012).

A second approach estimates the impact of skill differences on economic outcomes by using micro-data on earnings differences within the labor market. This “rate of return” literature focuses on calculating private and social returns to education by quantifying the impact of one additional year of schooling on future earnings. Estimates suggest that social returns are highest at lower levels of education (Psacharopoulos 2014 and Heckman 2008, 2011), underscoring the importance of investing in early childhood and basic education. This is summarized in the following stylized chart.

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2 The standard method for estimating this effect is by cross-country growth regressions where countries’ average annual growth in GDP per capita over time is explained by measures of schooling and a set of other variables important for growth (e.g. seminal work by Barro 1991 and 1997, Mankiw et al. 1992, Barro & Lee 1993, Barro & Sala-i-Martin 1995). Further research has focused on explaining the channels by which education investments translate in growth (see Hanushek & Woessmann 2008 for summary).

3 These studies relate international student achievement tests to growth rates, revealing that cognitive skills substantially improve the explanatory power of human capital in growth regressions. One study finds that one standard deviation in test scores is associated with two percentage points higher average annual growth in GDP per capita across 40 years (Hanushek & Woessmann 2009). In their recent book, Hanushek & Woessmann (2015) highlight that cognitive skills of the population – the knowledge capital - rather than school attainment are essential for long run prosperity.

4 For overview of private rates of return, see Montenegro and Patrinos (2014), for overview of social rates of return see Psacharopoulos (2014).
While several estimates of education on other social variables (including health, resilience to environmental shocks and political participation) exist, very few have quantified these effects in economic terms which would allow for more complete social rates of return to be calculated. Seminal work by Lawrence Summers highlighted that the social benefits (in terms of health improvements) of one additional year of education would far outweigh the costs. Increasing opportunities for girls offers the best chance for breaking the vicious cycle of deprivation (Summers 1992). A recent study using estimates of education on health shows that existing studies underestimate the rates of return of education on health. The analysis also highlights that as low income countries move towards universal primary enrollment, it is still cost effective to continue to invest in reaching the final out-of-school children at primary level (Schafferman et al. 2015). But the impact of education also stretches beyond what can be

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5 A number of these studies examine the relation between girls or female education and health outcomes. Studies find that girls’ education lowers maternal and child mortality (Gakidou, 2010, 2013); lowers fertility rates (Mook & Jamison 1988; Aslam, 2013); improves children’s health and immunization rates (Gakidou, 2013; LeVine and Rowe, 2009) and reduces HIV/AIDS and malaria (Gakidou 2013). Gakidou (2010) found that girls’ education had contributed to half of the reduction in child mortality over the past 40 years. A number of studies also examine the link between education and the ability to cope with natural disasters (Hideki and Sidmore 2007; Santos 2011) and climate change (Wheeler and Hammer 2010). Another body of research highlights the impact of education on social and political participation (e.g. Hill & King 1991; Castello-Climent 2006).
quantified in economic terms. The capability approach, introduced by Amartya Sen, further broadens the framework by highlighting education’s impact on improving personal freedoms and the removal of disparities in opportunities (Sen 1999).

Proposal for work:

The Commission will synthesize existing research, and make existing estimates of the impact of education more robust and relevant for policy makers. It will highlight the investments countries should prioritize and demonstrate why it is urgent to act and what will happen if we don’t act. It will:

(i) Review evidence and identify the linkages between education and other social variables in the Sustainable Development Goals (SDGs), with particular attention to the links between education and health and education and security. This would go beyond what can be quantified in economic or human capital terms to include evidence of impact on broader human capabilities.

(ii) More specifically, expand estimates of wider social returns of education expressed in dollar terms – in addition to social outcome indicators. These social impacts are important in themselves and have a multi-generational impact. They would also allow for more complete overall social rates of returns to be identified.

(iii) Estimate economic and social impacts using learning measures (test scores) in addition to years of schooling and explore impacts of different levels of education where possible.

(iv) Use social rates of returns to provide direction on investment priorities for governments of countries with different levels of development; possibly compare returns on education with other social investments in health, water, road infrastructure, safety, etc. (see also research theme 5.)

(v) Estimate costs of inaction. Review and expand evidence of costs of not having a faster rate of investment in human capital. This work could build on existing studies on the loss of welfare and economic variables (e.g. Patrinos & Psacharopoulos 2011, Thomas & Burnett 2014), as well as on increased insecurity and instability (e.g. Ostby and Urdal 2011; Chauvet and Collier 2007). This review could pay particular attention to fragile states, where lack of equitable quality education may perpetuate conflict and violence.

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6 Including impact on raising welfare of lowest ranks (e.g. using poverty rates as outcomes)

7 Some studies have linked inadequate education to increased participation in rebel/extremist groups, increased illegal activity, and over-confidence in military (Brett & Specht 2004; Krueger & Malečkova 2003; Humphreys & Weinstein 2008; Shayo 2007)
2. The Scale of the Challenge

The dramatic expansion of schooling over the past two decades has led to important individual and societal benefits. Nonetheless, judged by the lack of progress on quality, and the scale of unfinished business, global education receives a barely-passing grade.

• **Schooling is not leading to adequate learning in many countries in the developing world.** International standardized tests as well as other studies show that progress in learning as children move through their education is slow (for detailed analysis see Hanushek & Woessmann 2009; and Beatty and Pritchett 2012). Many children in developing countries complete school having learned very little, creating very large (and even growing) skills gap between rich and poor countries.\(^8\) Developing countries will need to make much faster progress to be able to close the gap with the better performing developing countries, particularly in Asia, let alone to catch up with richer nations.

**Figure 2: Share of Primary Students Meeting Basic Reading and Math Proficiency\(^9\) (%)**

![Bar chart showing the share of primary students meeting basic reading and math proficiency](chart.png)

Source: Calculations based on Winthrop & McGivney (2015); LDCs: Least Developed Countries; LMICs: Lower Middle Income Countries; UMICs: Upper Middle Income Countries; SIDs: Small Island Developing States

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\(^8\) This gap is larger than reflected in international assessments due to the fact that learning assessments are based on learning of those currently enrolled in school and not based on the entire cohort (including those out of school). An exception to this are the ASER and UWEZO surveys which are household based.

\(^9\) Reading and math proficiency is an average of the share of primary students meeting basic reading and basic mathematics proficiency levels, as determined by regional and international assessments. Learning data are unavailable in a number of countries and some group averages are based on a limited number of observations.
• **Out-of-school populations remain stubbornly high, and increasingly marginalized.** Despite great efforts, and significant success at improving access to basic education since the turn of the century, there are still currently 124 million children (between 6 and 15 years) out of school today. Most of them are from marginalized groups including children with disabilities, from ethnic, religious or linguistic minorities, and children affected by armed conflict (UNESCO 2015).

**Figure 3: Out-of-School Children and Adolescents**

- **Significant inequities in access and learning exist.** Public education expenditure tends to be highly regressive: wealthier children benefit disproportionally from public education funds (UNICEF 2015). In low income countries almost half of the public spending on education (including tertiary) goes to the best educated ten percent. Primary education is under-funded relative to secondary and tertiary education, and poorer regions are under-funded relative to richer ones. Lack of attention to education needs of the poor is compounded by other factors of marginalization, including poverty, gender, ethnicity, language and location which are often combined to hold back progress in many countries. These often overlapping disadvantages cannot be addressed by merely tweaking existing educational models. Deeper reforms of approaches, across sectoral boundaries, will be required.

- **Youth do not have the skills needed for productive employment.** Around the world, there is a growing gap between the skills that employers value in the workplace, and those
acquired in education systems (Cunningham and Villaseñor 2014; Mourshed, Farrell, and Barton 2012). Skills for labor market success include soft skills (such as resilience, communication, empathy, etc.), high-order cognitive skills, and technical and vocational skills, in addition to foundational skills (such as literacy and numeracy). Household data show that in 23 of 30 sub-Saharan African countries, at least half of the 15-19 year olds lack foundational skills. Around 200 million youth (aged between 15-24 years) in low- and middle-income countries need a second chance to acquire the most basic foundational skills (UNESCO 2012). Projections suggest the overall skills gaps in developing countries are likely to get worse with far too few workers with the skills needed to drive high productivity economies and far too few job opportunities for low skilled workers (Dobbs et al. 2012).

The challenge to provide quality education is further complicated by dramatic demographic shifts. National and international migration (including as a result of humanitarian crises) has significant impact on the size and diversity of school populations. For example, 2.7 million of the 6.4 million Syrian children of school age are out-of-school, and nearly half of these are now outside Syria. Education systems in Turkey, Lebanon and Jordan are overwhelmed by substantial numbers of additional children from refugee populations in urgent need of an education (Jalbout 2015; Theirworld 2015).

What are the factors that have contributed to these disappointing outcomes? The literature focusing on successful interventions has far outpaced research focused on identifying possible explanations for failures, but a few common findings stand out:

- **Education outcomes are to a large extent determined by student and parent background characteristics which are often not sufficiently addressed** (Clemens 2004). These include socio-economic factors (such as poverty, cultural barriers, child labor etc...) as well as factors that develop even before children enter primary school. Lack of pre-natal and early healthcare and nutrition, lack of cognitive and linguistic stimulation, lack of peer interaction, and an unsafe or uncaring environment in early years significantly affect children’s readiness to enter school, and can exacerbate learning disadvantages (Heckman 2011; World Bank 2011). Conflict and lack of personal security are also increasingly at the heart of exclusion from education, as is currently occurring in Syria, for example. This suggests that addressing the education challenges will require a multi-sectoral “whole of government” approach and will need to start before children enter primary school, including through early childhood development and care.

- **The way money is spent matters as much as how much is spent.** Cross country studies show the relation between levels of financing for education and learning outcomes is unclear or weak at best.¹⁰ Learning outcomes in many countries have changed slowly over

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the past decades despite significant changes in spending on education.\textsuperscript{11} This does not mean that financing does not matter, but instead highlights that increasing spending on education will, on its own, not be enough.

- **The structure of education systems is not fit-for-purpose.** Education systems in developing countries are increasingly designed for school expansion but not fit to address learning and equity challenges.\textsuperscript{12} Education systems—and donor attention—have primarily focused on increasing the quantity of schooling inputs (i.e. allocating financing to increase investment in the right elements such as teachers and materials), but paid too little attention to how these inputs are managed.\textsuperscript{13} More resources need to be accompanied with systemic reforms to make these resources effective to achieve learning and equity goals (Pritchett 2013).

**Proposal for work:**

The Commission will highlight key education challenges that need to be addressed as a matter of urgency, and will identify factors that have held back progress:

(i) **Map historical patterns and current state of global education:**

a. Summarize/update estimates of the progress in learning and learning gaps between developed and developing countries using most recent data from international and national standardized tests.\textsuperscript{14}

b. Summarize/update estimates of inequities within countries. This analysis would highlight inequalities within countries and the overlapping disadvantages that need to be addressed.\textsuperscript{15} The work would distinguish between inequities in access, retention and learning as these do not necessarily overlap, nor are the causes the same. Attention would be paid to particular groups of children that are left behind including, for example, children from ethnic minorities and lower castes, children in conflict, and children with disabilities.

c. Summarize/update estimates of skills gaps. This analysis would highlight the lack of skills among youth and resulting mismatch with demand for labor. This work would

\textsuperscript{11} Evidence shows that OECD countries doubled or tripled spending per pupil between 1970 and 1994 did not produce substantial learning gains (Gundlach, Woessmann and Gmelin 2001).

\textsuperscript{12} Views about purposes are also often multiple, and can include nation building, skills for the workplace, skills for life. There may be trade-offs and schools are ill-equipped to do them all equally well.

\textsuperscript{13} For example, educating children requires a system that can deliver services based on “thick” information. Current education systems are highly centralized. Large bureaucracies are not sufficiently flexible to manage and respond to information needed to produce learning (Pritchett 2014).

\textsuperscript{14} Building on Hanushek & Woessmann (2009), database on grade completion by World Bank and Filmer (2010) and Beatty & Pritchett (2012).

\textsuperscript{15} Building on WIDE database.
build on existing studies of labor market demands and supply of skills (see Kautz et al. (2014) and Lippman et al. (2015)).

(ii) **Map future demand for education:**

a. **Map population changes and hot spots in terms of need for schooling between now and 2100.** This would update existing work on demographic changes and their implications for education. For example, the largest population growth will be in countries with the biggest education challenges: India, Nigeria, Pakistan, DRC, and Ethiopia.

(iii) **Survey of empirical studies on causes of lack of progress in learning and reducing inequities including wider cross-sectoral and systemic factors.** Limited work has been done on why certain interventions are not working and systemic reforms are not implemented despite evidence of their impact. This part of the work could draw on a number of case studies of countries that have made slow progress in education to help identify key bottlenecks to greater progress.

3. **Reforms Needed to Deliver Effective Education**

Continuing progress at the level of the past decade will not come close to achieving access and learning goals set out in the Sustainable Development Goals. Under current trends, universal primary completion will not be achieved until 2100 and universal secondary completion will not be achieved until the next century (Lange 2015, Lutz and KC 2014). Learning goals will likely take longer. It will take at least 6 generations for the average scoring students in developing countries to catch up with those in developed countries today (Pritchett 2013; Winthrop and McGivney 2015). Major systemic shifts in attitudes, governance, and policies will be needed, as will much larger financial allocations.

What would it take to sharply accelerate progress and achieve convergence between developing and developed countries? This section of work would shed light on two trajectories. The first would assess “progress as usual”, assuming that the rate and pattern of progress of individual countries and country groups continues as at present. The second would explore the transformation required to enable slower moving countries (on access and learning) to enjoy accelerated progress that would enable them to converge with current education levels of high performing countries in one or two generations, and to achieve the SDGs on that path. This
accelerated track would require substantial expansion and improvement in effectiveness of education supply and demand.\textsuperscript{16}

Frustration with weak progress has led to a rapid recent expansion of research focused on identifying “successful” education interventions. This has resulted in the production of dozens of experimental and quasi-experimental studies (see recent systematic reviews by Glewwe et al. 2011; Petrosino 2012; Krishnaratne et al. 2013; Kremer et al. 2013; McEwan 2014; Murmane & Ganimian 2014; Conn 2014). While it is often difficult to compare various studies, and discrepancies between studies exist, broad categories of impactful interventions have been identified.\textsuperscript{17} These include demand side interventions (such as cash transfers), school inputs (teacher training, materials), pedagogy (computers/technology, teacher-led individualized instruction), accountability-boosting interventions (teacher performance interventions and contract teachers) and various governance reforms. Other effective interventions somewhat ignored by reviews include preschool or early pedagogy, early health interventions and mother tongue instruction (Ball 2011; Diamond et al. 2013).

The impacts of these investments have varied greatly, however, and they are \textit{highly} dependent on the systemic environment. This includes accountability systems and the governance structures that determine who makes decisions over use of resources. There is currently a significant gap in the availability of more macro-/system-level evidence on how education systems can deliver the required outcomes. Ongoing research is trying to fill this gap, including the multiyear RISE program on effective education systems sponsored by the UK’s DFID and the World Bank’s Systems Approach for Better Education Results (SABER) program.\textsuperscript{18}

Examining the effectiveness of education systems will require understanding the relationships between different actors in the system. This is usefully summarized in the accountability triangle presented in the 2004 World Development report (World Bank 2004).

\textsuperscript{16} For example, one estimate of high performance assumes all countries follow the educational development paths taken in the past by the frontrunners in East and South East Asia (Barakat & Durham 2014).

\textsuperscript{17} Evans and Popova (2015) provide a comparative overview of these studies and suggest reasons for discrepancies.

\textsuperscript{18} See \url{http://www.rise.ox.ac.uk/} and \url{http://saber.worldbank.org/}. 
Much work has taken place over the past 10 years to further refine this concept and examine its relevance for education. There is no one-size-fits-all model of education systems but there are a number of underlying principles that can determine whether an education system is likely to be effective.\(^{19}\) Pritchett (2013) proposes 6 principles that are likely to result in effective education systems: they should be open, locally autonomous, performance pressured, professionally networked, technically supported, and flexibly financed. In more recent work – as part of the RISE program – these frameworks and principles have been expanded to allow for a more detailed analysis of systemic barriers.

A growing body of literature is also focused on how innovation could help achieve social goals and the degree to which entire systems are capable of changing in new ways (Robinson 2015). Some argue that tackling today’s social challenges will require disruptive innovation (i.e. education models that break with current practice completely rather than innovations that improve existing practices and structures). Faster progress may require a fundamental change in current models found in education and a rethinking of organizational patterns that characterize most schools today (Schleicher 2015).

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\(^{19}\) Acknowledging difficulties with defining blueprints for system change, some practitioners have been promoting tools found in complex systems research, allowing for iterative and adaptive approaches to education interventions that are specifically suited to local contexts. (See recent work on complexity systems by Ben Ramalingam (2013), Owen Barder (2012) and Matt Andrews et al. (2012))
Proposal for work:

The Commission will identify ambitious but realistic trajectories to accelerate progress and will provide recommendations on priority actions needed to improve the effectiveness and equity of education delivery.

(i) **Estimate “progress-as-usual” and “transformative” trajectories, describing differences in learning outcomes and the policy, institutional and financing (next chapter) issues that will determine which path is taken.** This work would likely expand upon already existing projections such as the work by Barakat and Durham (2014) and the International Institute for Applied Systems Analysis (IIASA).

(ii) **Review of characteristics of systems that improve learning at scale.** The review would summarize characteristics of successful education systems and how they develop over time. This work would build on ongoing research into successful education systems including the DFID-RISE program, World Bank SABER, GPE country data, Brookings Millions Learning and ODI Development Progress; as well as earlier work on successful education systems (e.g. Mourshed et al. (2010), OECD (2011, 2013), Pritchett (2013)) and effective education accountability systems (e.g. Bruns et al. 2011).

(iii) **Identify 3-5 priority actions or guidelines for reform to enhance the effectiveness, efficiency and equity of the education system, through research on the following key systemic issues:**

   a. **Effective monitoring of learning and financing.** Few countries across the globe measure learning consistently or conduct system level assessments that provide information on system performance levels to inform education policy and practice (World Bank 2012). In 2013, only 40 of about 137 developing countries had globally comparable data on learning and student achievement (Angrist et al. 2013). In addition, financing data are often not tracked or sufficiently disaggregated to enable analysis of the effectiveness of spending. Building on existing diagnostic initiatives, the commission would review: (1) existing system-level assessment policies and practices and standards of learning; and (2) existing policies and practices related to disaggregating financial data on education (e.g. National Education Accounts). Particular attention could be paid to data systems and platforms that have enabled governments to link performance measures with financing allocation data (such as “My School” in Australia).

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20 For example, the World Bank SABER-Student Assessment, PISA for Development, the UNESCO-UIS National Education Accounts program etc.
b. **Effective teaching.** Recent studies have highlighted that teacher effectiveness is the most important predictor of school-based student learning. Yet many countries lack an appropriately trained and motivated teacher workforce with effective incentive mechanisms and professional development (UNESCO 2013/4). Much work is now focused on identifying teacher policies with the greatest potential for impact but the evidence is incomplete and at times highly contradictory and dependent on the context (World Bank 2013). Building on diagnostic tools such as the SABER-Teacher Policies instrument, the commission could review the knowledge base and highlight the policies that would be most effective in different country contexts.

c. **Effective provision of textbooks.** Two recent studies have highlighted the high costs and ineffective use of textbooks in many developing countries (READ 2015; and Fredriksen et al. 2015). Commission research could review evidence and ideas for systemic improvements, including opportunities for cost savings in textbook provision. This work could draw on existing efforts around the Book Fund, an initiative financed by USAID, Norway, GPE, DfID, and others to improve textbook provision in developing countries. This work could also be expanded beyond textbooks to include an evaluation of cost effective provision and costs and benefits of aggregated purchasing of learning materials other than books, teacher professional support materials, disability aids and technology hardware/software.

d. **Effective models (including state and non-state actors) delivering quality education at scale:**

   i. The Commission could highlight what policies and systems have been found effective in supporting a mixed system of state and non-state provision. A large number of studies have been focused on identifying the differences between state and non-state providers. Systematic reviews of this evidence point at mixed impacts in terms of quality, equity etc. There is a dearth of evidence however on the influence of the systemic and enabling environment within which different types of education providers operate and can be effective (Day Ashley et al. 2014).

   ii. Under this theme, the Commission could also explore potential new models of delivery through disruptive innovation and the role of technology. As more actors enter the scene, a balance will need to be struck between regulating sufficiently to manage de facto growth of non-state actors and regulating lightly to enable innovation in achieving education outcomes. The research could identify actions that governments could take to facilitate innovation

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21 One recent example is study by Bruns & Luque 2014 on “great teachers” and teacher policies in Latin America and the Caribbean.

22 This work is currently focused on supplementary reading materials only but could be expanded to textbooks.
and transformation in education delivery while recognizing that silver bullets are hard to find.

e. **Effective and equitable allocation of public spending.** There is a relatively broad literature that focuses on the equity of education financing in developed countries. A large part of the discussion revolves around funding formulas. This started in the 1960s when government recognized the relationship between economic disadvantage and poor educational attainment. Further improvements in the models were introduced when education systems in many countries were decentralized and they continue to be updated and refined today (Ross & Levacic 1999). Attention to formula financing is relatively new in the developing world but several countries have now adopted needs-based financing models. This is not to say, of course, that allocations should not also take account of value for money in how the financing is used. The commission could review and synthesize evidence on effective funding reforms and financing allocation formulas in developing countries; providing recommendations on how they could be applied in different country contexts.

f. **Effective “whole of child” approaches.** A final area of work could examine the potential for synergies between sectors to address education challenges. This work could identify investment strategies that would help to tackle education and health disadvantages in a more coordinated and mutually beneficial way. A particularly fruitful area in which to examine this nexus is early childhood development.

4. Financing Needs to Achieve Goals

In addition to making finance work better, meeting the education challenges will require substantial scaling of financing from all sources. Several assessments of financing needs have been made for the education MDGs (e.g. EPDC 2009 and UNESCO 2012), but so far there are no comprehensive assessments of the needs related to education SDG, including both access and learning. The most recent estimates cover a sub-set of the education SDG i.e. pre-primary, primary and secondary education (e.g. Wils 2015 and UNESCO 2015).

One of the challenges in estimating costs of achieving the SDG on education is in the as yet unspecified “quality” of learning outcome embedded in the targets. Goal 4.1 states:

“By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes”
One approach to addressing this is to assume that education outcomes in low- and middle-income countries would converge with the best performing middle income countries by a certain (ambitious) date. This, for example, is the approach taken for estimation of financing needs for health in the Lancet commission (Lancet Commission 2013). We would propose to adopt the same approach. Though by 2030 low-income countries certainly would not be at the level of quality of advanced economies or even leading middle-income countries today, they would be on a clear “transformative” path towards such convergence, which can in turn be costed.

The most recent estimates of education financing needs (UNESCO 2015) are based on intervention-based needs assessments. The model uses a “basic expenditure function”, and a number of key targets per student (teacher ratios, school attendance, evolution of teacher salaries etc.) to estimate full cost of achieving universal pre-primary, primary and secondary completion by 2030. The model includes an estimate for growth in domestic resources to calculate a financing gap. The model does not account, however, for cost efficiencies related to alternative models of delivery (e.g. using technology or private providers), nor does it adequately account for additional costs related to marginalized populations and humanitarian crisis.

Proposal for work:

The commission will review and expand estimates of financing needs taking into account implementation capacity and innovation. It will:

(i) Estimate financing needs associated with a “transformative” path of progress as described above.

(ii) Develop different scenarios accounting for different expenditure functions using alternative models of delivery and levels of efficiency (including non-formal education, use of technology, private delivery of education, etc.);

(iii) Analyze additional costs related to marginalized children and children in conflict;

(iv) Estimate costs of education as a whole, including tertiary education and vocational training. Even though the primary focus of the commission is basic education (pre-primary up to secondary), higher education cannot be ignored from an analytical and political economy perspective. Higher education is important not only for national development but to help address the problem of the shortage of well-qualified teachers. Work in this area would be less detailed but sufficient to provide guidance around policies (e.g. finance, teacher training etc.) that affect the entire education system.
5. Sources of Finance and Financing Architecture

An important question for every education system is how countries will mobilize resources to pay for education delivery. Where will the revenue come from?

Domestic public spending is by far the most important source of revenue for education. Public spending on education has been rising in developing countries over the past decade, driven by economic growth and improved domestic resource mobilization. In addition, aid for education more than doubled and played an important gap-filling role, in particular in low-income countries (where it represents an average of 20 percent of total public spending on education). Much attention has also been paid to improving the effectiveness of aid and sizable coordination efforts have been made in recent years, including through the establishment of the Global Partnership of Education (GPE).

Figure 5: Domestic Public Spending on Education has been Growing

![Graph showing domestic public spending on education as a share of GDP (percent), average, by country income group.](image)

Sources: Authors’ calculations based on UIS database.

Source: Steer & Smith (2015)

There is cause for concern, however. While overall the volume of public spending on education has increased, the share of total public spending going to education has been declining in a number of key countries. In addition, while total aid volumes continued to grow, aid for education declined by nearly 10 percent in recent years and aid to education is highly
fragmented. Growing sources of concessional and non-public finance have not really benefited education. Education has also not been prioritized as much as other sectors in humanitarian crises and education accounted for only 1.6 percent of total humanitarian aid in 2013 (Steer & Smith 2015). However, financing patterns across countries vary considerably. Some countries, such as the middle-income countries, have access to an increasing variety of sources of finance including non-concessional and private finance (see table 1).

Table 1 - Selected Education and Financing Indicators for Six Country Groups

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Fragile LDCs</th>
<th>Nonfragile LDCs</th>
<th>Fragile LMICs</th>
<th>Nonfragile LMICs</th>
<th>Upper Middle Income</th>
<th>SIDS</th>
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<tr>
<td><strong>Domestic public spending</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Tax to GDP ratio (%)</strong></td>
<td></td>
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</tr>
<tr>
<td>2002-2004</td>
<td>9.3%</td>
<td>14.0%</td>
<td>12.3%</td>
<td>15.5%</td>
<td>16.1%</td>
<td>16.7%</td>
</tr>
<tr>
<td>2008-2010</td>
<td>11.0%</td>
<td>17.1%</td>
<td>13.3%</td>
<td>18.1%</td>
<td>17.6%</td>
<td>19.1%</td>
</tr>
<tr>
<td><strong>Education as share of Government Expenditure (%)</strong></td>
<td></td>
<td></td>
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<tr>
<td>2002-2004</td>
<td>14.5%</td>
<td>14.4%</td>
<td>16.2%</td>
<td>16.0%</td>
<td>14.8%</td>
<td>15.8%</td>
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<tr>
<td>2010-2013</td>
<td>13.4%</td>
<td>15.9%</td>
<td>15.2%</td>
<td>17.8%</td>
<td>17.4%</td>
<td>15.2%</td>
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<td><strong>ODA</strong></td>
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<tr>
<td>ODA as a share of GNI (%) 2011-2013</td>
<td>11.4%</td>
<td>10.4%</td>
<td>3.5%</td>
<td>3.7%</td>
<td>0.7%</td>
<td>14.1%</td>
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<td><strong>Total education aid, per capita (disbursements, constant 2012 dollars)</strong></td>
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<tr>
<td>2002-2004 (USD)</td>
<td>2.9</td>
<td>7.8</td>
<td>2.2</td>
<td>6.4</td>
<td>1.5</td>
<td>23.1</td>
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<tr>
<td>2011-2013 (USD)</td>
<td>3.8</td>
<td>7.5</td>
<td>4</td>
<td>6.6</td>
<td>2.2</td>
<td>44.6</td>
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<td><strong>Nonconcessional finance</strong></td>
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<tr>
<td>Other Official Flows (OOF) per capita (disbursements, constant 2012 dollars)</td>
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<tr>
<td>2002-2004</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.7</td>
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<td>2011-2013</td>
<td>0.1</td>
<td>0.3</td>
<td>1</td>
<td>4.4</td>
<td>24.9</td>
<td>1.2</td>
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<tr>
<td><strong>Total Education OOF per capita (disbursements, constant 2012 dollars)</strong></td>
<td></td>
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<tr>
<td>2011-2013</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td><strong>Private finance</strong></td>
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<td>Foreign direct investment (net), per capita (constant 2012 dollars)</td>
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<td>2002-2004</td>
<td>0.7</td>
<td>0.3</td>
<td>9.5</td>
<td>2.2</td>
<td>21</td>
<td>61.7</td>
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<tr>
<td>2011-2013</td>
<td>2.2</td>
<td>4.9</td>
<td>10.4</td>
<td>11.8</td>
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<td>48</td>
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<td>Remittances (inflows), per capita (constant 2012 dollars)</td>
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<tr>
<td>2002-2004</td>
<td>15.8</td>
<td>14.3</td>
<td>28.5</td>
<td>19</td>
<td>27.7</td>
<td>125.4</td>
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<tr>
<td>2011-2013</td>
<td>38.9</td>
<td>42.6</td>
<td>113.4</td>
<td>66.4</td>
<td>69.5</td>
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</table>

Source: Steer & Smith (2015); LDCs: Least Developed Countries; LMICs: Lower Middle Income Countries
**Domestic public spending**

The SDGs will not be achievable without significant scaling of domestic public finances. In addition to making existing resources more efficient and equitable as noted earlier, more resources will need to be raised.

A critical strategy to increase the volume of public finance is to improve tax capacity and eliminate tax loopholes.\(^{23}\) Tax capacity is particularly low in fragile states and will need to be raised substantially to meet the 20 percent of GDP recommended by the IMF.

A complementary strategy to scale financing for education would be to increase the share of the budget devoted to education. Rather than competing with investment in other development priorities, however, opportunities could be identified to turn “bad” allocations of public spending into “good” ones. One such opportunity is distortionary energy subsidies. Worldwide, these subsidies represent (in fully costed terms) US$5.3 trillion or 6.5 percent of global GDP (IMF 2015). In many countries these subsidies far exceed spending on education (Steer and Smith 2015). More evidence is needed on how some countries, such as for example Indonesia, have successfully reduced energy subsidies and reallocated resources to social sectors.

**External public and private finance**

Even with substantial efforts from developing countries in raising their own finance for education, additional external resources will be needed. New sources and mechanisms of finance are emerging across countries at different levels of development, which may offer opportunities to scale finance for education.

More analysis is needed around the following questions:

- **What is the potential to grow external grant finance from all sources, including from private foundations and charities?** A number of new donors are now part of the development landscape but their potential for education is currently unknown. These include emerging donors (Arab countries, South-South cooperation, etc.), private philanthropy, remittances, etc. Estimates of aid from non-traditional donors range from $11 to $42 billion or between 8 and 31 percent of gross ODA globally (Walz and Ramachandran 2011). Private Development Assistance from OECD countries alone is estimated between $30 and $60 billion (OECD 2014, Henon 2014). Evidence suggests, however, that education has not been benefiting as much as other sectors from increases in grant financing. Only 1 percent of total grant financing from US Foundations

\(^{23}\) See discussion in World Bank 2013; Development Committee 2015; OECD 2014
for the MDGs was directed towards the education goal. Similarly, while aid to education from official donors increased rapidly over the decade, it declined by 10 percent over the past three years. Recent declines in aid have affected regions with high education and financing needs. Sub-Saharan Africa’s share in total aid to primary education declined from 52 percent in 2002 to 30 percent in 2013, while the continent’s share in total number of out-of-school children rose from 46 to 57 percent. More work is needed to understand the reasons behind this lack of interest in supporting education and particularly basic education.

**Figure 6: Decline in Aid to Education has Affected Regions with High Education Needs**

**Share of Primary Education Aid to Sub-Saharan Africa (percent), 2002-2013**

![Graph showing decline in aid to Sub-Saharan Africa.]

*Source: Authors’ calculations based on OECD-DAC CRS and UNESCO GMR estimates for out-of-school populations.*

Source: Steer & Smith (2015)

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**To what extent could more traditional grant finance be used in innovative ways to leverage other sources of finance for education through blending, matching etc.?**

Donors are developing partnerships and mechanisms that blend financing from different sources. This can take many forms. A number of donors are looking into opportunities to blend loan and grant financing to promote country demand for loans (in the case of multilateral development banks) or to leverage financing by crowding in market-based financing from both the private and public sectors (see recent proposals in World Bank and IMF 2015). Meanwhile, the GPE has been exploring a partnership with the Islamic
Development Bank to buy down loans (Burnett 2013). The education sector has not yet benefited as much as it potentially could from non-concessional finance and reasons for this lack of interest need to be further examined. Attention also needs to be paid to risks of negative impact on debt-servicing and on incentives for reducing grant financing for education.

- **What is the potential of impact investing and shared value approaches for education?**

  Traditionally, the focus has been on charitable giving and grants—which are private flows with an explicit social motive and no expectation of financial returns. A new class of social investors has emerged, however, which seek to combine social and financial returns. They differ from regular commercial investors because they explicitly aim to generate social impact as well as financial returns, and because they are willing to accept lower financial returns than could be gained from more traditional commercial investments (Drexler and Noble 2013). If donors combine social and financial returns, the amount of capital available to achieve education goals could potentially be much larger than traditional philanthropic budgets. There is much interest in this type of finance but its potential for education is not well understood.

- **What kinds of partnerships or financing channels are needed to reach the scale and results needed in different country contexts?**

  o Despite considerable efforts both internationally and within countries, data suggest that existing coordination has not been effective in reducing fragmentation in education. The number of official donor relations in education in low and middle income countries increased by more than 12 percent between 2008 and 2013. As of 2013, 15 countries had more than 20 official education donors. For more than one third of the donor relations reported to the OECD-DAC, the amounts of aid were so small that they are considered non-significant, leading to greater fragmentation according to an OECD-DAC methodology.

  o Only about 35 percent of total aid to education is delivered through multilateral channels, compared to 65 percent in health (Steer & Smith 2015). The only dedicated multilateral fund for education, the GPE, does not have a global mandate (it is currently focused mainly on LICs and Africa, and had an initial focus on basic education) and has not been able to attract the support it would need to coordinate the education sector through a financially strong pooled fund. Two concrete proposals for a global fund have been made: a Global Fund for Education, building

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24 The GPE buy-down review finds that LICs that are unable to borrow on hard terms and MICs that are reluctant to borrow for basic education on hard terms could benefit from these new instruments. Opportunities in this area need to be further explored.
on the GPE; and a Humanitarian Fund for Education in Emergencies (Schmidt-Traub and Sachs 2015; Brown 2012, 2015). The precise framework and business case for such a fund should be further examined, building on examples of global funds in other sectors.

- Beyond proposals for a global funding mechanism, calls are also made for strengthened partnerships between various development actors (OECD 2015).

**Figure 7: Only 35 percent of Education Aid is Delivered through Multilateral Channels**

*Education and Health Aid by Bilateral, Multilateral Core and Multilateral Noncore, 2013*

![Chart showing Education and Health Aid by Bilateral, Multilateral Core and Multilateral Noncore, 2013](source)

*Source: Authors’ calculations based on OECD-DAC database.*

*Source: Steer & Smith (2015)*

**Overall education financing architecture: balancing public and private financing**

Public resources in developing countries often fall short of what is needed and choices need to be made in terms of which part of the education system will be publicly financed and where user fees may be charged to complement public finances. Despite international efforts to eliminate user fees, many developing countries continue to rely on such fees at different levels of education (Ladd & Fiske 2008). The increase in private provision of education in a number of developing countries has also led to a renewed debate about the impact of user fees on school participation and learning outcomes (Ashley et al. 2014). Given the broad remit of the SDGs (including pre-primary, vocational and higher education), more work is needed to provide guidance around public funding allocations across different levels of education and the potential for cost sharing. Evidence on returns to education suggests that in developing...
countries an average dollar invested in pre-primary and primary education has much higher (social) returns than one invested in higher education. Within higher education, some investments in specialized fields yield much greater returns than others but spending allocations are not distributed accordingly (Psacharopoulos 2015).

There is a lack of clear guidance for developing countries around the right financial architecture to ensure access to quality education and learning, and the pathways to universal access and learning at different levels. This involves:

- the degree of subsidization towards levels of education relative to their social returns and cost-recovery at higher levels of education;
- the variation in allocations per child depending on socio-economic characteristics and education disadvantage;
- options to finance higher education by developing credit markets or alternative financing mechanisms targeting the poor (e.g. through selective scholarships) to create broad access and finance higher levels of education.

Proposal for work:

The Commission will identify additional sources of finance and actions that could be pursued by national, international, public and private actors to increase investment in effective education delivery.

(i) Scaling domestic public finance:
   a. Projections of availability of domestic resources for education under various scenarios including optimal tax efforts and share of spending to education. This could update the analysis of Steer and Smith (2015) and Wils (2015).
   b. Identify opportunities for inter-sectoral re-allocation of available resources. For example, this work could examine in which countries energy subsidies could provide a source of additional finance for education and which countries have made such transitions successfully.

(ii) Scaling international finance. Analyze factors determining allocations for education and options for scaling external finance for education including:
   a. Projections of future aid flows from traditional and emerging donors including private philanthropists. This work could build on existing work on forward spending plans by the OECD; surveys of emerging donors, as well as ongoing mapping surveys of private development finance by Development Initiatives and Dalberg: Henon (2014); and Kakar et al. (2015).
b. **Analysis of potential supply and demand for catalytic or blended finance in education.** This stream of work would analyze the potential of using grant or other types of financial instruments (e.g. guarantees) to catalyze other types of finance for education. This would include an analysis of the demand in developing countries for various types of concessional and non-concessional finance for education. This work could build on existing surveys of donor agencies with client countries (e.g. client surveys of multilateral development banks).

c. **Analysis of scope for impact investing and shared value approaches in education.** Building on the growing number of studies examining the scope for private investors to get engaged in social causes (e.g. Humphrey et al. 2014; D. Capital 2013), this part of the research would examine the potential of impact investments in education (at different levels).

d. **Analysis of coordination and pooling mechanisms for education including a Global Fund for Education as described above.** This work would examine what channels and instruments would be needed to deliver the additional external resources. It would provide an evidence base for use of existing scale up instruments and/or for developing new ones (such as the proposed global fund). This would take account of earlier work (e.g. Schmidt-Traub & Sachs 2015). Building on evidence of successful partnerships in other sectors (see OECD 2015), the work could provide guidance on how partnerships in education could be organized to achieve more and better financing for education.

(iii) **Financing architecture – pathways for scaling up.** This work would provide clear policy options for financing models and phasing of education finance scale-up. This would include updates of the early work on policy options for financing education (e.g. Psacharopoulos et al. 1986, Saavedra 2002, UNESCO 2005) which included recovering public costs at higher levels of education, developing credit markets, and selective scholarships, especially for higher education.
References


Saavedra, J. (2002). *Education Financing in Developing Countries: Level and Sources of Funds*. World Bank Institute, Human Development Group.


UNESCO. (2015). *A growing number of children and adolescents are out of school as aid fails to meet the mark.* Policy Paper 22 / Fact Sheet 31.


