EDUCATION DIALOGUE

Keynote Paper 3

Innovative Financing for Education

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CABRI Education Dialogue

Keynote Paper 3

Innovative Financing for Education

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List of acronyms

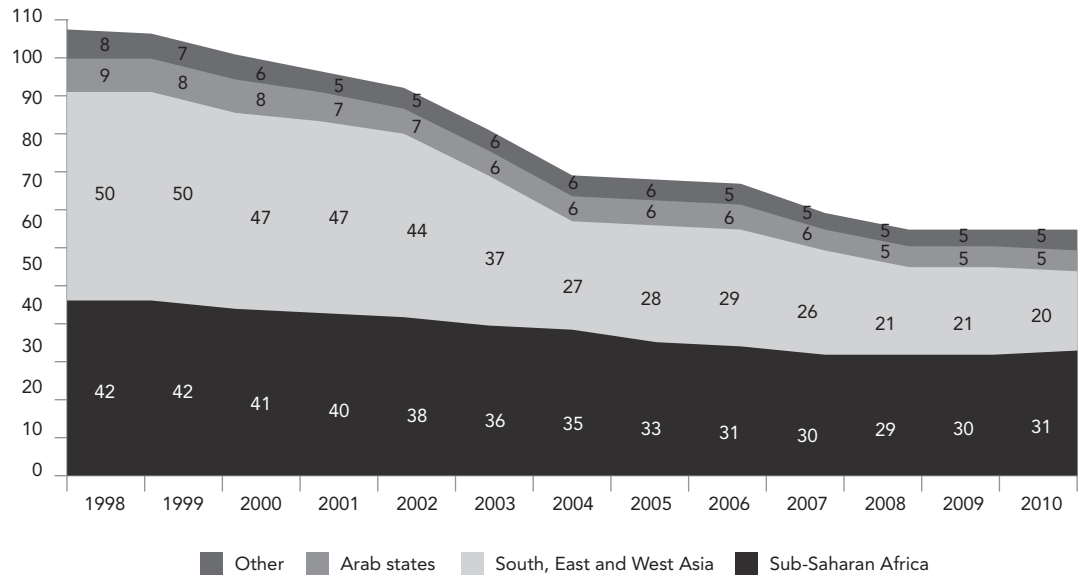
AMC	Advanced Market Commitment
COD Aid	Cash On Delivery Aid
DAC	Development Cooperation Directorate
DFID	Department For International Development (UK)
EdVF	Education Venture Fund
EFA	Education For All
FDI	foreign direct Investment
IMF	International Monetary Fund
IFFIm	International Finance Facility for Immunisation
ISFC	Indian School Finance Company
LICs	low-income countries
MDGs	Millennium Development Goals
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
SSA	sub-Saharan Africa
UIS	UNESCO Institute for Statistics
UPE	universal primary education

1. Background and approach

1.1 Context

Countries in sub-Saharan Africa (SSA) have made significant improvements in education over the last decades. Between 1990 and 2008, the number of children enrolled in primary school more than doubled from 59.6 million to 128.5 million, an average rate of 4.6% per year. Enrolment in secondary education (14.9 million to 36.4 million) and in tertiary education (1.3 million to 4.5 million) grew at even faster rates (5.4% and 7.6% respectively) (UIS 2011). However, SSA still lags behind other regions in the world when it comes to net enrolment in primary education: in 2009, the net enrolment rate in SSA stood at 77%, compared to the 90% world average, making it the region with the lowest enrolment rate (UIS 2011). As shown in Figure 1.1, in 2010, 61 million children of primary school age worldwide were out of school of which 31 million lived in SSA. The number of primary age children not in primary or secondary school varies significantly by country however. In 2010, of the 31 million children who are not enrolled in school, 10.5 million were in Nigeria. The counrty with the next largest population on children not in school was Ethiopia with 2.4 million children.

Figure 1.1: Number of primary age children not in primary or secondary school (millions)



Source: UNESCO (2012)

This keynote paper serves as an input into the dialogue between officials from ministries of finance and education. Its goal is to provide a basis for discussion by focusing on three key areas: First, it reviews the current state of education finance in SSA and the challenges countries face. Second, it provides an overview of current innovative financing initiatives and reviews successes and challenges. Third, it discusses how existing and new models can be used to address key issues, and discusses ways that government, civil society and the private sector can contribute. The keynote paper aims to provide the following benefits to the dialogue:

- Support policymakers. Education is a major cost for African governments. The paper takes stock of the current state of financing, of existing financing mechanisms, and of approaches and considerations that will help policymakers mobilise resources and increase the efficiency and effectiveness of resource transfers.
- Identify novel instruments and mechanisms. Technological progress, such as

e-learning, creates new opportunities to increase the scale of innovative financing mechanisms in education. Alongside these opportunities for new approaches for delivery, there are new opportunities for funding, such as public–private partnerships, cash on delivery, and innovative bond structures. The paper identifies the most promising approaches for different systems and contexts, and also discusses risks, challenges and key issues to consider going forward.

- **Recognise the diversity of education systems**. Education in Africa is based on multiple systems (French, British or Portuguese), different economic, political and historic environments, and varied delivery models (public, private or community). The paper takes these different contexts into account and provides a menu of innovative finance options to address specific challenges.

1.2 Relation to other keynote papers, case studies, and dialogue proceedings

This paper is part of a larger research effort commissioned by CABRI for the dialogue between representatives from ministries of education and finance. The paper has been developed as a pre-read document for conference participants. Other keynote papers in this series include:

Understanding the Education Challenge: Policy and Institutions presents a critical review of the current state of education by examining key policies, institutions and funding. It covers the constraints at the Ministry of Finance level in terms of their understanding of education policies, and at the Ministry of Education level in terms of communication, negotiation and budgeting.

Efficiency in Education Spending for Learning Outcomes. This paper examines whether (i) resources are being channelled to identified priority needs (allocative efficiency) and (ii) whether line agencies are using these resources in the most efficient and effective manner (technical efficiency).

In addition, two case studies have been prepared separately to supplement the keynote papers. These case studies comprise an overall description of a programme/project and the salient features that make them succeed or not succeed.

1.3 Approach

The paper explores the current state of education financing in SSA, reviews existing mechanisms for financing education in Africa, and looks at alternative and innovative initiatives from other regions of the world. The paper reviews the situation based on current and potential mechanisms. In particluar:

- The current situation of education financing, both traditional and innovative. Establishing the current level of financing sets the baseline and informs the discussion by clarifying the need for education finance. Reviewing current innovative financing mechanisms helps establish which mechanisms have been tested and what contribution they are already making to address financing needs.
- Potential mechanisms and approaches going forward. What are promising mechanisms that have been used elsewhere or in other sectors, and how much could they contribute to countries' financing needs?

The supply of innovative finance mechanisms that are appropriate as sources and uses of funding. We make recommendations on new approaches to finance spending in the education

sector based on these four lenses. To gather data, we conducted desk research and key informant interviews. We reviewed national, regional, and global reports on education financing, academic papers and case studies on innovative financing, and select journalistic publications.

2. Education financing in SSA: Current financing and development needs

This section reviews the approaches to funding education based on the source and the use of the funding. Funding can come from public or private sources and can be used either in the public or the private sector. The most important funding channel is from public sources to public sector implementation, for example the government budget financing public schools. Another very important funding channel is household expenditure on public sector education, for example people paying school fees, buying school uniforms or buying text books. There are few examples where public funds finance private sector implementation of education services, and instances of private sector financing private sector implementation are also rare.

Education financing in general and innovative financing in particular can support different objectives. For example, some mechanisms are designed to enable students to cover the cost of education. Others enable providers of resources to recoup funds provided to students. Yet others enable institutions to cover fees and to shift from grants to loans in their financing. Others help institutions that provide subsidised education build a self-replenishing pool of funds.

This section presents major trends in current education financing, an overview of the education challenges that African governments face, and an overview of the constraints that governments currently face.

2.1 Sources and uses of education financing[1]

Education is financed through three primary streams: through public funding (including both domestic governments and international aid), through individual and household expenditures, and through private philanthropy (including both faith-based organisations and secular ones).

2.1.1 Public financing for education

Scale of financing

Public funding and public use of funds are the dominant paradigm for educating children both in developed and in developing countries. Throughout the world, government funds are spent by the state to finance public schools and universities. Education in Africa is similar and is largely financed from public sources, especially at lower levels of education.[2] In developing countries, this is in direct contrast to the health sector where private spending and international aid transfers are the most important sources of funding.

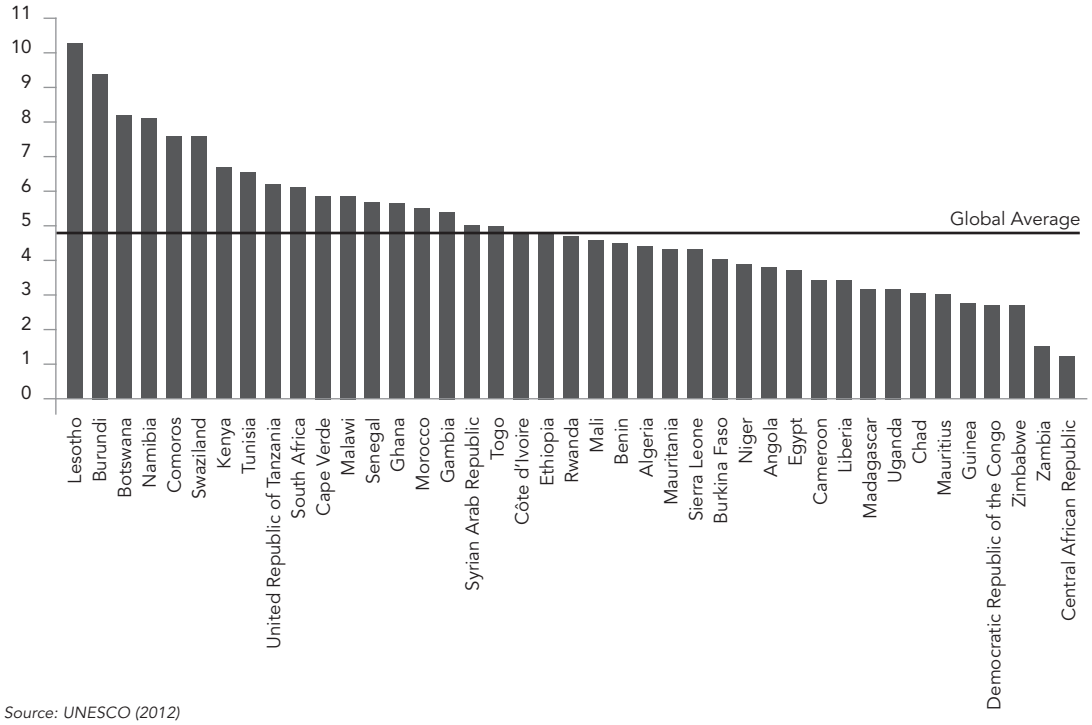
In SSA, public expenditure on education is estimated at 4.7% of GNP, with large differences between countries. Public expenditure on education is 10.3% of GNP in Lesotho compared to 1.2% in the Central African Republic. Consistent with growth in the number of students enrolling in school, the absolute amount of public expenditure is increasing. For 26 countries

1 Unless otherwise noted, the data presented in this section is based on UIS (2011).

2 According to UNESCO the most widely used statistical indicators for education are often limited to public sources, which makes it impossible to provide a complete description of private expenditure on education.

where data is available, the real public expenditure in education grew by 6.1% per year between 2000 and 2009. The Central African Republic was the only sub-Saharan African country where real public expenditure decreased.

Figure 2.1: Public expenditure on education as a percentage of GNP

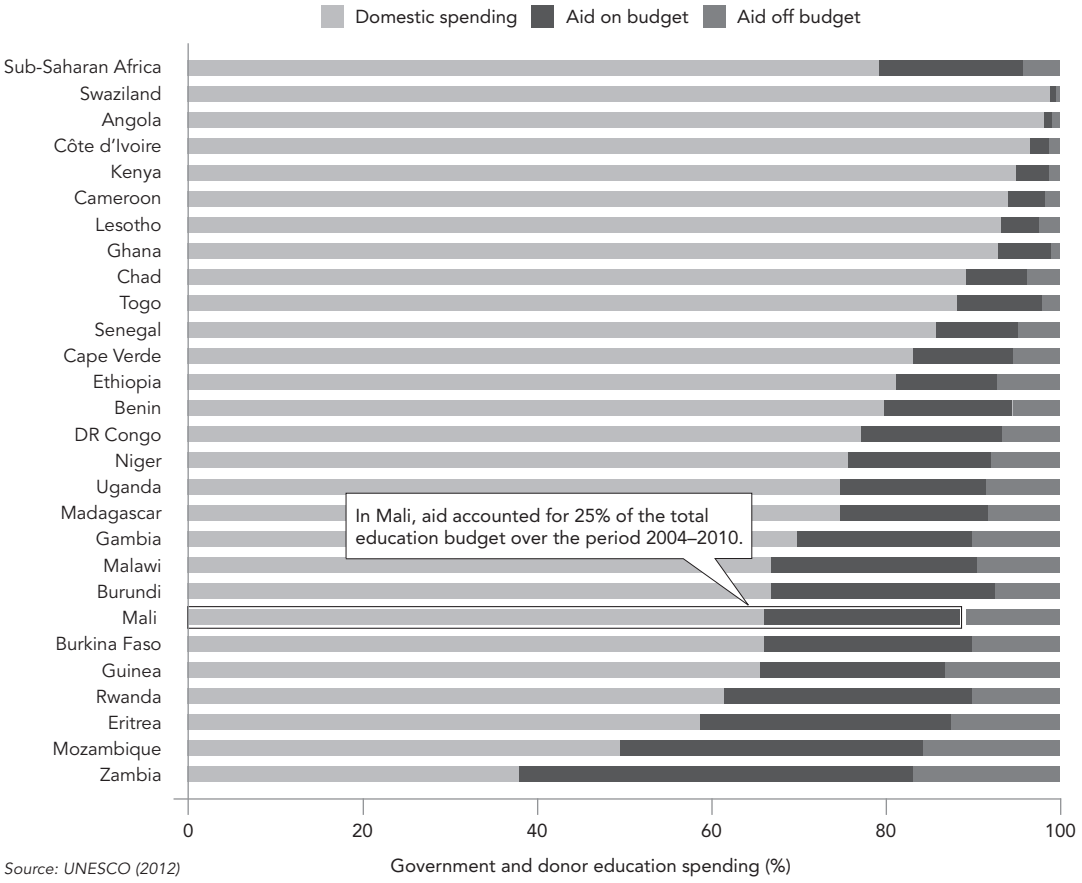


Source: UNESCO (2012)

International aid is a major contributor to education financing in many SSA countries. In addition to government revenues, OECD DAC countries provided approximately $9.4 billion in 2011 (Organisation for Economic Co-Operation and Development 2012). In addition to DAC donors, new sources of international finance are emerging. New donors such as China, Korea and Russia are playing an increasing role, as well as private foundations (see private financing below).

As shown in Figure 2.2, on average between 2004 and 2010, aid accounts for approximately 15% of public education resources in SSA. Between 2002 and 2010, total aid disbursements to education increased by 38% in SSA, but declined by 4% between 2009 and 2010. Furthermore, according to the Education for All Global Monitoring Report, aid to education, along with overall aid, is likely to decrease leading up to 2015. These reductions would be in addition to trends where donor governments have not fulfilled commitments made at the Group of 8 Gleneagles Summit in 2005. SSA received approximately half of the amount it was promised, which reflects US$ 1.9 billion less aid for education (approximately one-third of current aid to basic education) (UNESCO 2012). Between 2002 and 2008, the discrepancy between donor commitment and disbursement was around 9% (or US$ 221 million) every year.

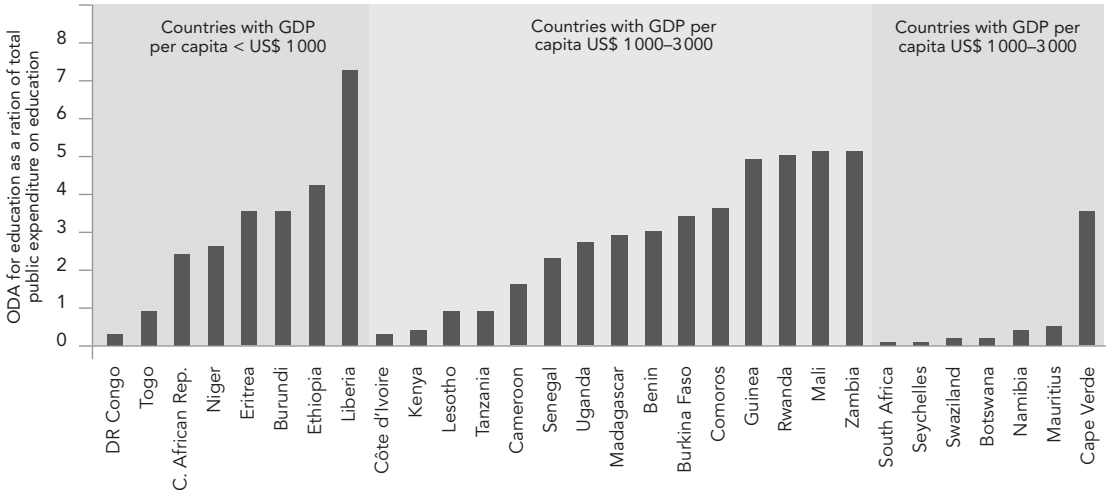
Figure 2.2: Domestic and aid resources for education, averages from 2004 to 2010



Source: UNESCO (2012)

These trends are more pronounced in low-income countries. As shown in Figure 2.3, for countries with a GDP per capita of less than US$ 1 000 (PPP) analysed by UNESCO, donor financing was between 3% and 72% of public sector expenditure. For countries with an income between US$ 1 000 and US$ 3 000 (PPP) the share still reached as much as 51%. Higher income countries (GDP per capita bigger US$ 3 000) generally had a lower share of donor financing.

Figure 2.3: Official Development Assistance (ODA) for education by income classification

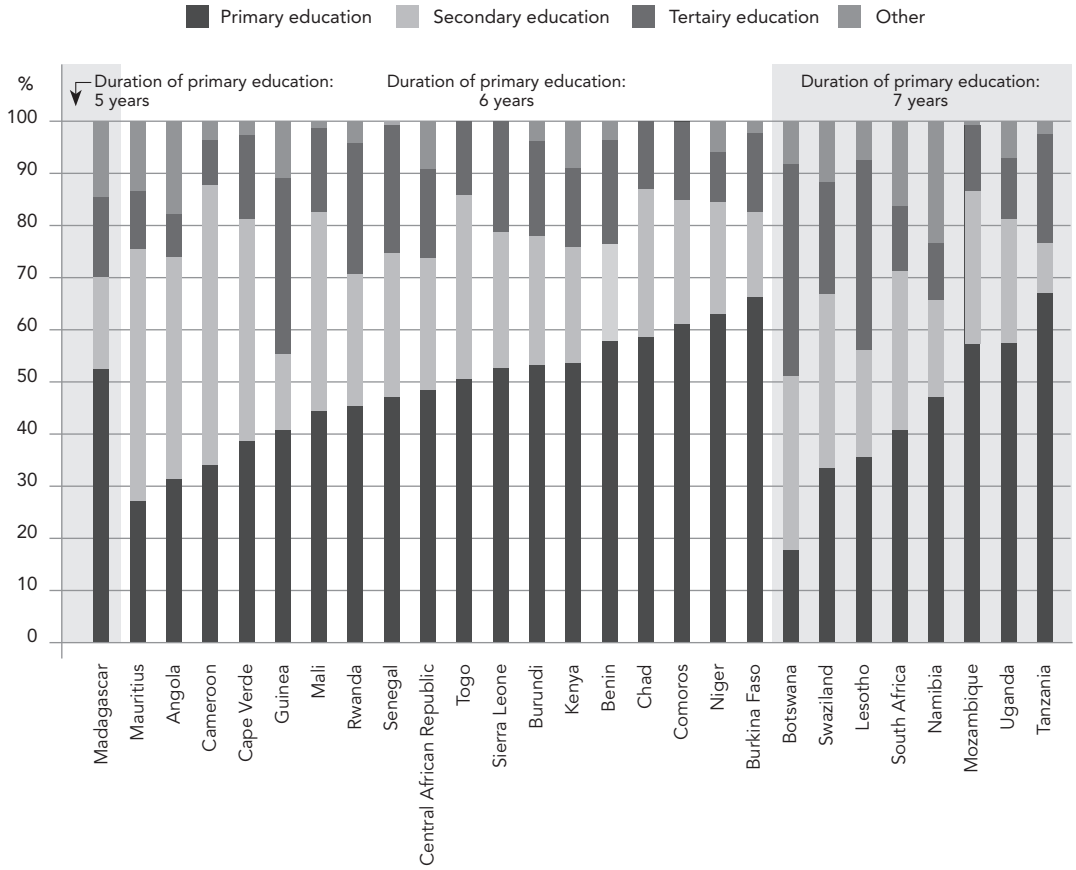


Source: UNESCO Institute for Statistics calculations based on ODA data from the OECD DAC and education expenditure data from the UIS database. GDP per capita: World Bank and Statistical Table A1.

Use of financing

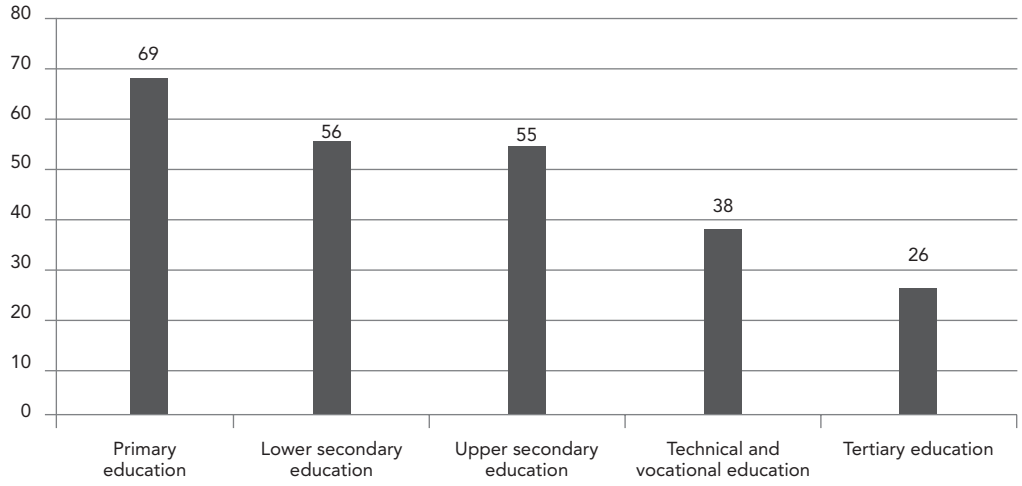
The allocation of financing by education level varies by country. As shown in Figure 2.4, Burkina Faso allocates the greatest percentage of expenditure to primary education, while Botswana and Lesotho spend the greatest amount on tertiary education, which may reflect scholarship programmes in these countries. On a per-student basis, spending on secondary level education in SSA countries is high compared to other regions (Mingat, Ledoux & Rakotomalala 2010). Likewise, many SSA countries invest ten times more per student for tertiary education compared to primary education.

Figure 2.4: Public education expenditure by level as a percentage of total education expenditure, 2009 or most recent year



Within categories of spending, the vast majority of public spending (85–95%) is on teacher salaries in developing countries, which is comparable to expenditures in OECD countries where salaries account for approximately 80% of education costs (Burnett & Bermingham 2010). However, there is considerable variation between countries and year even for countries with similar income levels. For example, Burkina Faso spends 92% of current expenditures on salaries while Lesotho spends only 70% (UIS 2011). The share of expenditure on teachers tends to decrease by education level, from a 69% average for primary education to 26% at the tertiary level.

Figure 2.5: Salaries as a percentage of current expenditure by education level, 2008 or most recent year



Note: The proportion is claculated based on a simple average of 33 countries for primary education, 20 for secondary education, 12 for technical and vocational education and 11 for tertiary education. The reference year ranges from 2003 to 2008.

Source: Pôle de Dakar (UNESCO-BREDA) database

There is also significant variation in the type of contracts with teachers and in the amount of salaries. In Francophone countries, there are typically civil servants, contract teachers and community teachers who are paid by the national governments or their communities. In Anglophone countries, there are 'qualified' teachers, who have received training, and non-qualified teachers (Pôle de Dakar 2009). In Francophone countries, teachers who are civil servants earn more while in Anglophone countries teachers who have received training earn more (UIS 2011).

2.1.2 Private financing for education

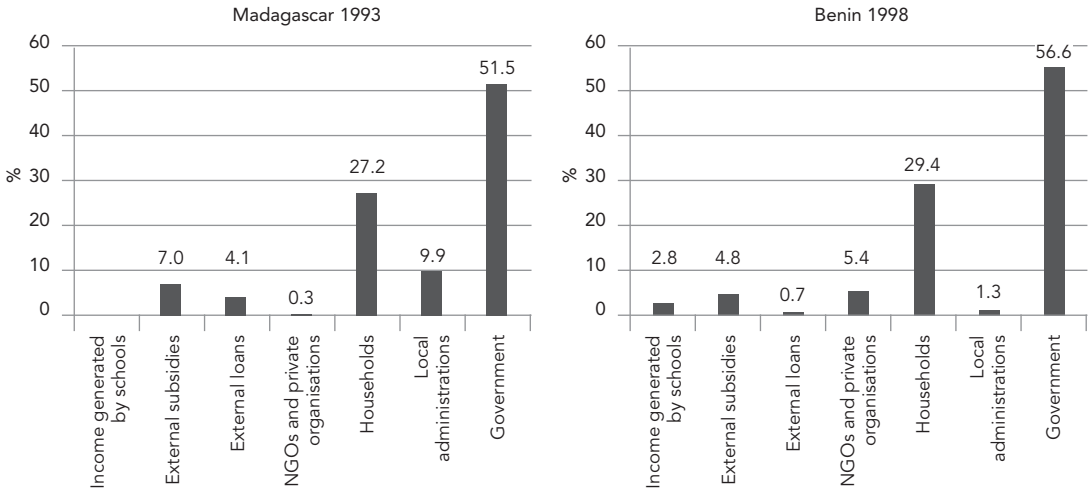
Private financing for education comprises of individual and household spending, commercially oriented and impact investors, and philanthropies.

Individual and household spending

Scale of financing

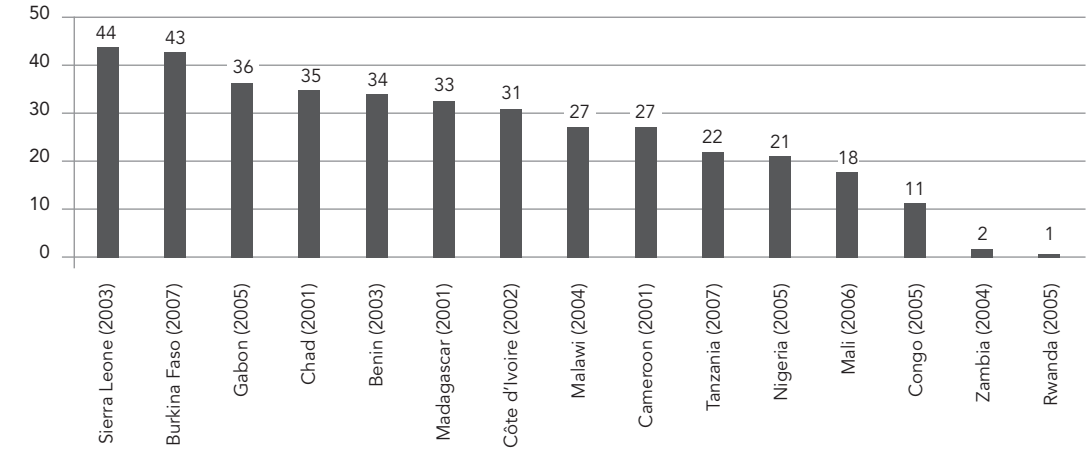
Private sector funding for education in Africa is dominated by household expenditures on education. While the percentage of household expenditure as a percentage of total spending on education varies widely by country based on the structure of the education sector and based on the support from public financing sources, it makes up approximately 25% of total expenditures in education. For example, in Benin and Madagascar households are the second largest source of funding after the government, far outstripping NGOs, external subsidies and income generated by schools.

Figure 2.6: Sources of education financing for Madagascar and Benin



Source: UIS (2011)

Figure 2.7: Household expenditure on education as a percentage of total national expenditure on education



More recent analyses by UNESCO places the share of households in financing education in the range of 18% (Mali) to 44% (Sierra Leone) for countries with a GDP per capita of less than US$ 3 000, with the notable exceptions of Zambia and Rwanda, where expenditure lies below 2%. The average share of household expenditure for 16 countries analysed lies at 26%, consistent with the previous examples from Benin and Madagascar.

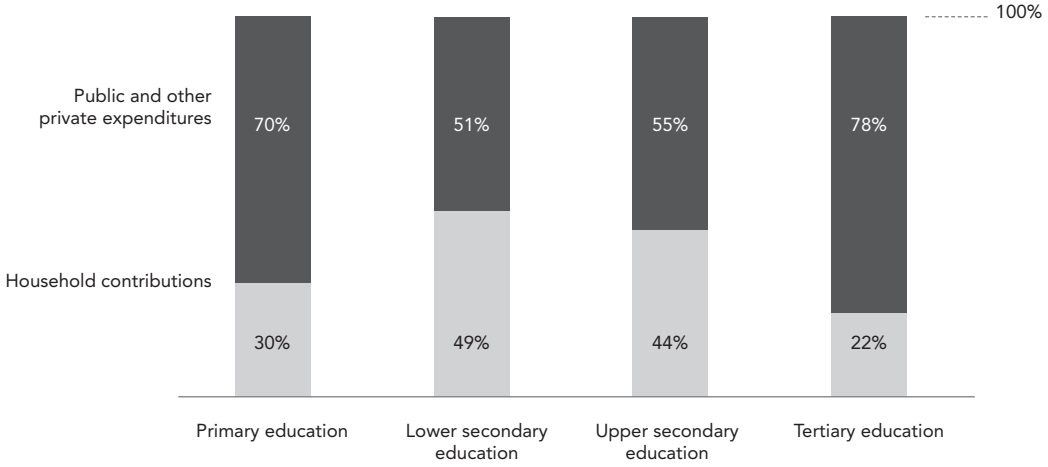
It is important to note that for countries in SSA, household expenditure on education, as part of total household expenditure, remains roughly constant across income levels: the lowest quintile spends on average 4.3% of its income on education, whilst the richest quintile spends 5.6%. This highlights that lower-income households will tend to consume less education or lower-quality education.

Use of financing

Household spending on education can be used for a range of costs: fees to attend school, contributions to parent or student organisations, and spending on textbooks, uniforms and supplies. Household spending on education is higher in countries where private schools provide a larger percentage of education services.

There is also variation based on the level of education. As shown in Figure 2.8, household contributions make up a significant amount of spending on education at all levels. Even at the primary school level, household contributions make up 30% of total spending.

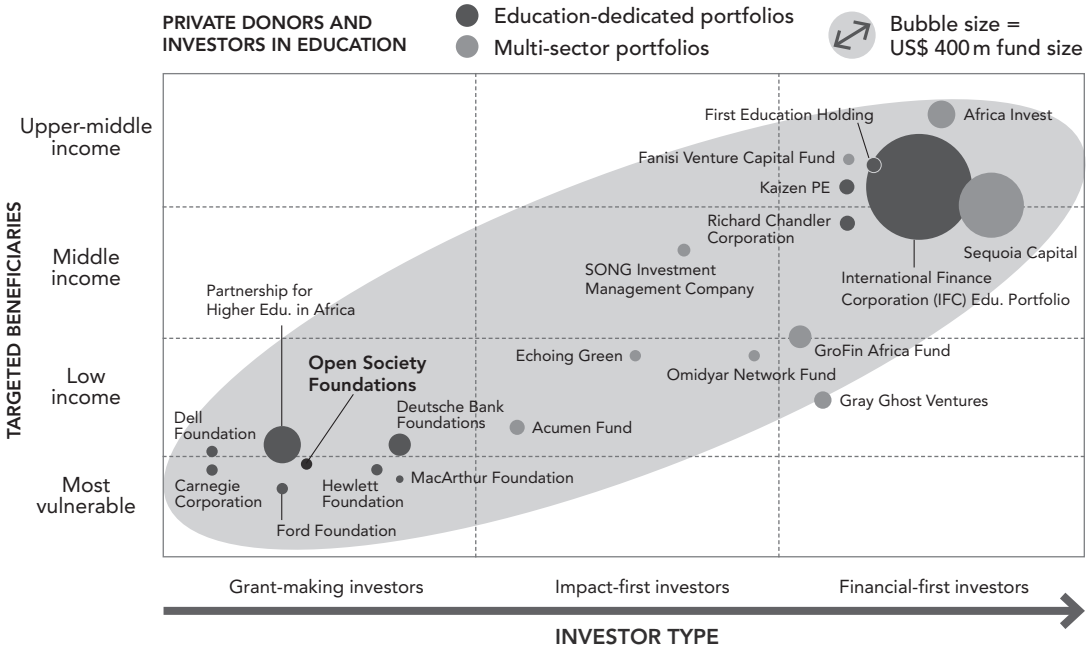
Figure 2.8: Proportion of household contributions to education expenditure by level, 2001–2006



Commercial and impact investors

Based on the high percentage of spending by private individuals, private equity funds are emerging to capitalise on this spending and in anticipation of increased enrolment in the future. Investors range from primarily philanthropically oriented organisations, such as the Ford Foundation and the Open Society Foundation, to commercially oriented funds such as Sequoia Capital or AfricaInvest. The landscape of investors in education is shown below.

Figure 2.9: Landscape of investment in education



Note: Only funds disbursed to non-governmental actors in developing countries are included in this analysis. Analysis presented is meant to offer representative sample of grantors and impact investors, not to present a comprehensive view of all education impact investment activity. Many multi-sector portfolios include only 1 or 2 education deals. Foundation education portfolios for 2009 inclusive of both US and international grants.

Source: Foundation Center – Top Education Grants (2009); Fund/investor websites, investor interviews; Dalberg analysis

The examples identified in Figure 2.9 are not exhaustive, but give an indication of current trends. Initiatives identified are typically in the early stages and are not yet operating at scale. The number and scale of private equity funds that currently exclusively support education in Africa is small. For example, Results for Development Institute intends to raise a US$ 55 million fund that focuses on education investments.[3] The fund will combine a grant window of US$ 20 million and an investment window of US$ 35 million with the expectation that 30–40% of the investments supported through grants will become investments (Results for Development 2011). Likewise, Pearson, an international education company, aims to invest an initial US$ 15 million into a fund that will invest in private companies committed to innovative approaches, sustainable business models, and improving learning outcomes.

Philanthropic financing

While the public sector is the primary funder of education in Africa, private sector and civil society examples are emerging. Private sector financing for education takes place at a smaller scale and includes both secular and faith-based models. It frequently operates in conjunction with public efforts and often shares some of the costs with the government.

In Sierra Leone, for example, more than half of all students attend faith-based schools that benefit from government support through teacher salaries and teaching materials (Wodon & Ying 2009). A study by Wodon and Ying suggests that faith-based schools perform slightly better than government schools for providing primary education when taking into account socio-economic factors and effects due to school choice, but the magnitude was very small (Wodon & Ying 2009).

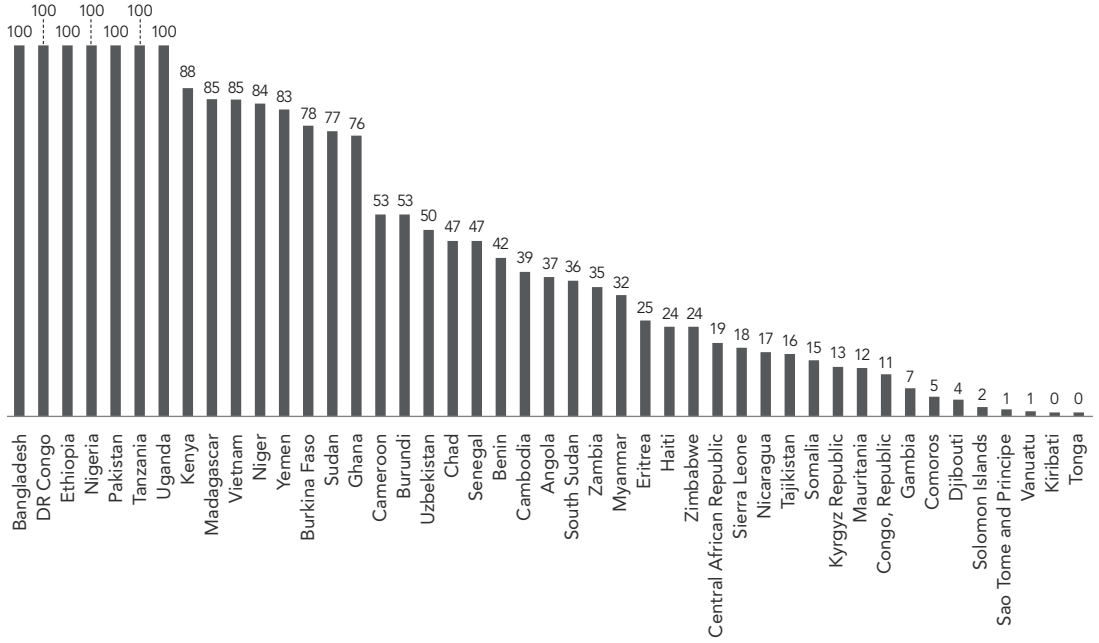
A similar model combines government funding with philanthropy, student fees and other revenue generating activities. In Uganda, Absolute Return for Kids (ARK), for example, pays for the capital cost of the school and shares the operating costs with the government, which pays approximately 50%. Families pay a fee for school lunches, but do not pay tuition. The schools also take on boarding students whose boarding fees help to cross-subsidise other school costs. Finally, students can participate in income-generating learning activities such as farming for an agricultural course, which also contributes to the school's income. ARK has educated 300 000 children and raised over £170 million (US$ 275 million), making it one of the UK's fastest-growing fundraising charities over the past ten years. While this is a promising mechanism for financing education, significant questions remain: can this approach be scaled up to raise more money? What is the effect on the quality of education provided?

2.1.3 Public–private partnerships for financing education

Public–private partnerships are also used as financing sources. The Global Partnership for Education (GPE), for example, offers funding and technical support to build and implement education plans in developing countries. It is funded by donors, developing country governments and multilateral, civil society and private sector organisations. In October 2011 the GPE launched a fund to enrol more children in school for a better education. In addition to technical assistance for countries to develop education plans, it funds implementation of plans with a focus on providing support to fragile states, girls' education, and the quality of education and learning outcomes.

3 This fund is described in more detail in section 4 of this paper.

Figure 2.10: Global Education Partnership Fund indicative amounts for education plan implementation grants (US$, millions)



2.2 Education challenges for African governments

While the specific context of each country is different, desk reviews and select interviews identified the following common challenges that African governments face when mobilising resources, deploying resources effectively and investing in effective education tools.

2.2.1 Mobilise additional resources

The need for additional resources is driven by two factors:

- **Increased demand**. Demographic pressure is an important driver of more students enrolling in school. Between 2005 and 2010, the population of countries in SSA grew by 2.4% and is the fastest regional population growth rate in the world. As a result, 77 million more children will have education needs. SSA will need more schools, more teachers, and more capital investment to meet this demand. During our interview, Mr Zachee Iyakaremye of the Ministry of Finance of Rwanda noted that this increasing burden is a direct result of policy decisions to provide universal primary education, which is free in Rwanda. This strains the budget, which is the largest source of education financing.

- **Finance gap**. At the same time as African governments are facing rising demand, international support for education is decreasing. As shown in Table 2.1, estimates of financing gaps vary depending on the methodology and what is being measured, but worldwide estimates range from US$ 3.7 billion to US$ 16 billion. Concomitantly, the UNESCO Global Monitoring for All report does not see a positive outlook for aid between now and 2015. In a simulation of financing needs and available resources, including domestic resources, the World Bank estimates that by 2020 there will be an annual finance gap for primary education of US$ 3.1 billion for countries in SSA (Mingat, Ledoux & Rakotomalala 2010).

Table 2.1: Estimates of worldwide external financing needs

Annual external financing	What is being measured
US$ 9.1 billion (in 1998 $)	Additional cost of achieving EFA in developing countries
US$ 10–15 billion	Additional foreign aid needed to reach the education MDGs
US$ 3.7 billion	Incremental external financing needed to achieve the education MDGs in LICs
US$ 7–10 billion	Additional financing need by 2010 to achieve the education MDGs
At least US$ 10 billion	External financing gap of providing eight years of quality basic education, including to disadvantaged and vulnerable children
US$ 8.3 billion	Total external financing needed to achieve the education MDGs and EFA goals in Africa
US$ 11 billion	Total external financing needed to achieve three of the targets set in the Dakar Framework for Action (UPE, early childhood programmes and literacy) in LICs
US$ 16 billion	Total external financing needed to achieve the broader EFA goals

Source: Steer and Wathne (2009)

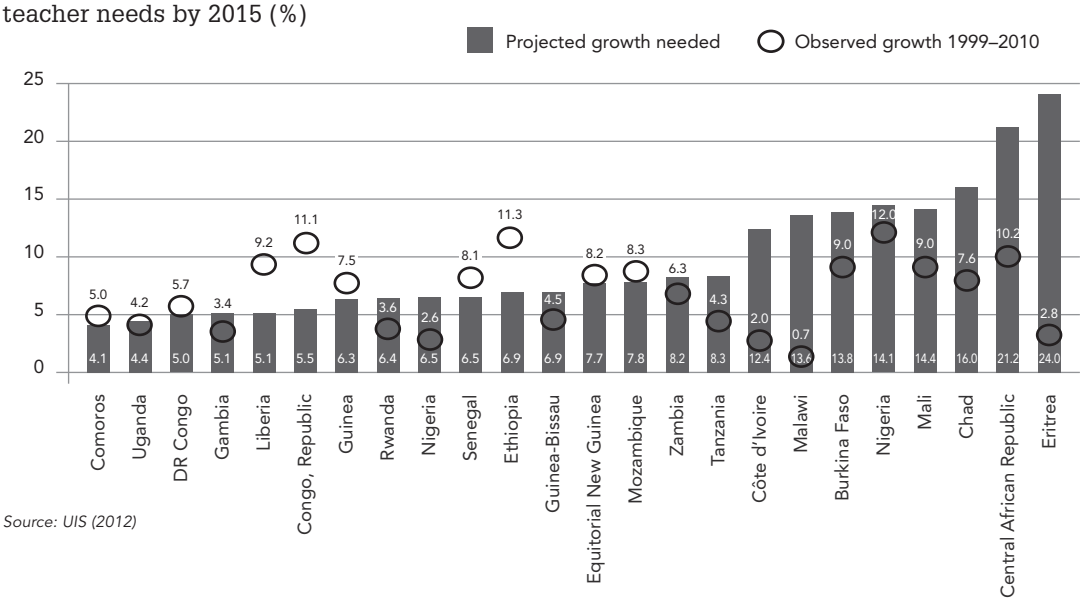
2.2.2 Increase government absorption capacity

Responding to the greater demand for education is a daunting challenge. In addition to requiring more resources (as discussed above), planning, managing, and delivering services to a growing population requires governments to have the absorptive capacity to use resources effectively. In many African countries there is an entrenched belief that education is primarily a public good. The government is expected to deliver education solutions, which limits the ability to achieve scale with private sector solutions.

Figure 2.11 presents the projected growth need for primary school teachers between 2010 and 2015, which ranges from 24% in Eritrea to 4.1% in Comoros. Furthermore, in countries with the greatest demand for teachers there has also been the slowest growth in the number of teachers between 1999 and 2010. Côte d'Ivoire, for example, will need to increase the number of primary school teachers by 12.4% by 2015 and has only grown its workforce by 2% between 1999 and 2010.

Furthermore, annual attrition rates vary in sub-Saharan African countries between 3% and 17%. In order to respond to the demand for more teachers, governments will need to improve working conditions and provide incentives to attract and retain teachers (UNESCO 2010). This will require governments to effectively deploy resources in addition to mobilising them.

Figure 2.11: Observed growth in the number of primary teachers since 1999 and projected teacher needs by 2015 (%)

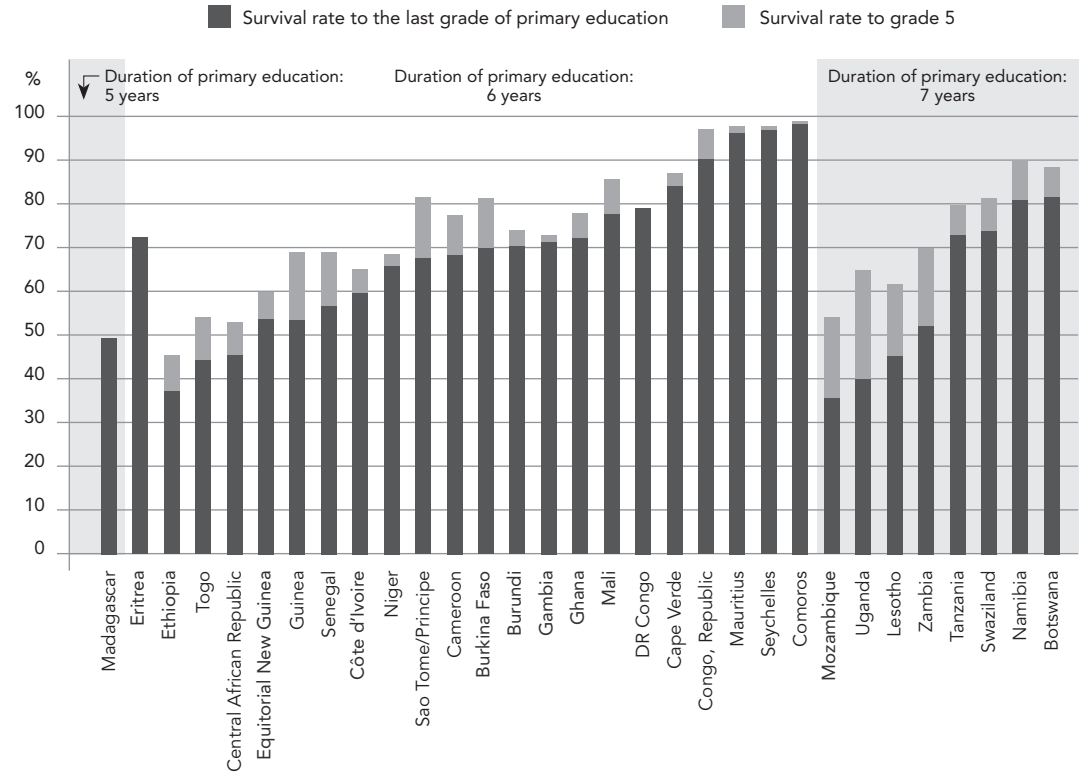


Source: UIS (2012)

2.2.3 Improve quality of outcomes

During our interview, Ms Julia de Bruyn of the South African Ministry of Finance stated that access is no longer an issue in the country. Rather, quality of education has become the main concern for the government. As shown in Figure 2.10, few countries in SSA are able to graduate more than 90% of children at the primary school level. In addition, there is evidence that even students that complete the primary school grade level do not have the ability to read at a basic level.

Figure 2.12: Survival rate to grade 5 and the last grade of primary education, 2009 or most recent year



Innovative finance, in conjunction with policy reforms and political support, can address many of these challenges. Section 3 presents an overview of how innovative finance has supported development in general and section 4 identifies models that have been proposed to address the finance challenges specific to education.

3. Overview of innovative finance: Context and opportunities

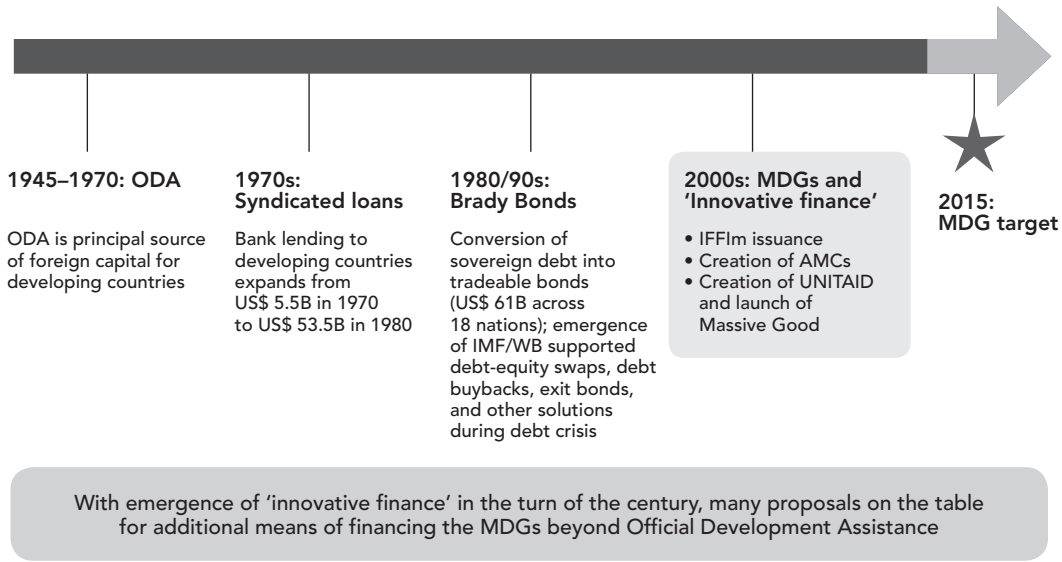
It is worth stepping back to consider the broader context of innovative financing within development. This includes an exploration of how innovative financing integrates with Overseas Development Assistance (ODA), lessons learned from other sectors in which innovative financing is more established, and principles that can inform its application in the education sector.

3.1 What is innovative financing?

Innovative financing is most simply defined as development financing that moves beyond traditional bilateral and multilateral fundraising and spending mechanisms. Innovative financing mechanisms can be characterised as (1) innovation in sources – fundraising of incremental capital either from new funders or existing funders in new ways, or leveraging private capital, and mobilising public resources; and (2) innovation in uses – changing the way in which existing capital is deployed or spent, and introducing financial solutions to increase its efficiency, effectiveness and overall impact within both the public and private sector. For example, UNITAID innovates in scaling up access to treatment for HIV/AIDS, malaria and tuberculosis in low-income countries; it does so in its sources through the airline tax and in its uses by leveraging price reductions for quality diagnostics and medicines, and accelerating the pace at which these are made available.

There have been innovations in development finance in the past several decades, such as syndicated loans to developing countries and Brady Bonds. However, the traditional model of Official Development Assistance (ODA) and bilateral commitments persists. In this context, 'innovative finance' has garnered interest and grown in importance over the last decade. A key driver for this has been the dramatic resources required to meet the MDGs, with the aim of identifying a significant complement to ODA.

Figure 3.1: Evolution of development financing



In the past decade, a number of political events have galvanised the development community and helped to define key principles and aspirations for innovative finance. The first such milestone occurred at the Monterrey Consensus in 2002, a pivotal convening at which the concept 'innovative financing for development' was introduced. The participants articulated six focal areas for innovative financing for development: (1) mobilising domestic financial resources; (2) mobilising international resources (Foreign Direct Investment [FDI]), private flows); (3) trade; (4) financial/technical cooperation; (5) external debt; and (6) systemic issues (enhancing coherence and consistency of international monetary, financial and trading systems). This was followed by the New York Declaration on Innovative Sources of Financing for Development and the Paris Conference on Innovative Sources of Financing for Develop-ment, in 2005 and 2006 respectively.

Several key reports have helped frame the debate – the Landau report, the report of Working Group 2 from the Task Force for Innovative Financing in Health Systems, and recent reports by the World Bank and Brookings Institution – all of which have made important contributions and informed this paper (Landau 2004; Girishankar 2009).

A simple way to categorise innovation is based on the resources involved. Public-only innovation mobilises and deploys public sources, while public–private innovation combines public and private resources to increase scale, effectiveness and sustainability of funding. Table 3.1 presents the high-level framework for consideration of these primary dimensions along with key examples for existing and emerging mechanisms in development finance.

Table 3.1: A framework for innovative finance for development

Type of innovation	Example mechanisms	Development goals supported
Public-only innovation Innovation in mobilising and deploying public resources	• Frontloading or smoothing aid • Global taxes or solidarity levies • Result-based financing or aid (e.g. debt buy-downs, performance-based funding)	• Issues with high consensus on redistributive requirements, such as humanitarian assistance, health, and food aid • Public funding streams where restructuring can yield significant efficiencies
Public–private innovation Innovation that combines public and private resources to increase scale, effectiveness and sustainability of funding	• Blended value investing (e.g. impact investments) • Cap-and-trade, and other markets for environmental services • Catastrophe risk management and other insurance mechanisms • Co-payments and input subsidies • Guarantees to reduce risk of commercial investors • Research and Development (R&D) incentive mechanisms • Voluntary solidarity contributions	• Sectors which require long-term private sector engagement for sustainability and efficiency • Addressing market failures • Issues with substantial interest from private individuals or private foundations • Public funding streams where private sector structures or tools could substantially increase efficiency or effectiveness of aid

While there has been considerable growth in innovative financing, it is important to remember that it remains only a small proportion of ODA. According to the recent World Bank report, between 2000–2008 innovative fundraising generated an estimated US$ 57.1 billion in official flows (4.5%), while innovative uses through financial solutions deployed US$ 52.7 billion in official flows (5.7%) (Girishankar 2009). Innovative financing can play a complementary and catalytic role relative to ODA, but is not yet at scale to substantially augment ODA.

Progress in innovative financing: The case of global health

Global health is an area that has captured the attention of the development community and donors throughout the world. Funding for global health grew from US$ 10 billion to US$ 22 billion per year over the past decade. While substantial resources have been mobilised, gaps remain significant. In order to address these financing gaps, a variety of pivotal innovative financing mechanisms were born. The mechanisms described here are chosen for illustrative purposes, as each aims to deal with unique gaps in sources and uses, as well as tackle some of the persistent challenges in product innovation and delivery.

The first of these mechanisms, UNITAID, was created from the proceeds of airline taxes and supports scale-up of treatment programmes for HIV/AIDS, tuberculosis and malaria in developing countries. Shortly thereafter, the International Finance Facility for Immunisation (IFFIm) was created, a bond structure which frontloads long-term donor commitment for vaccine campaigns. By frontloading funding, the intention was to vaccinate populations as quickly as possible such that sufficient scale could be achieved to control the spread of disease. Through the IFFIm, participating countries have pledged over US$ 5 billion, expected to be paid out over the next 20 years. Finally, in response to challenges in stimulating private investment in drugs and vaccines targeting neglected diseases, an Advanced Market Commitment (AMC) was created by the GAVI Alliance. The AMC underwrites an agreed volume and price for vaccines, which in turn stimulates R&D.

These three mechanisms each represent a novel approach to addressing unique and persistent challenges in financing for development. They can each claim success in terms of testing a new approach and effectively mobilising capital; however, they have each experienced mixed levels of success in achieving their objectives and intended impact. For example, the IFFIm was successful at frontloading resources for vaccination campaigns, but arguably, frontloading does not solve the critical need to achieve sustainable long-term funding for vaccinations. Similarly, the AMC pilot by the GAVI Alliance was deployed for the introduction of two vaccines – rotavirus and pneumo-coccal. The AMC was designed to accelerate R&D for these two vaccines. However, it has come under criticism because the scope of this R&D is considered too narrow by some stakeholders, namely these vaccines are linked to late-stage candidates, who are in less need of innovation, and are produced by only a small set of vaccine manufacturers.

On balance, global health has been an area in which innovative finance has experienced tremendous growth both in terms of resources dedicated to innovative financing, as well as the range of mechanisms deployed to address a wide variety of issues. The cases of UNITAID, IFFIm, and the AMC speak to this range of sources and uses, but the mixed level of success in each of these cases also underscores the need to assess the overall impact and relevance of these individual mechanisms.

3.2 Additional examples of proposed instruments

The main forum for discussion of additional proposals in the area of innovative financing is the Leading Group on Innovative Financing for Development (also mentioned as Pilot Group on International Solidarity Contributions for Development). Established in 2006, it consists of 63 member countries. It also brings together the main international organisations, including the

World Bank, WHO, and the United Nations Children's Fund (UNICEF), as well as non-governmental organisations (NGOs).[4]

Figure 3.2: Member and observer countries of the Leading Group for Innovative Finance for Development

Over the last few years, the Pilot Group has made several proposals and works concurrently on various mechanisms such as taxes on globalised activities, public-private partnership intended to make demand solvent, government-backed loan mechanisms, systems intended to raise additional private funds, and voluntary contributions. Overall, a series of broad modalities and mechanisms are being explored to date, including:

- International Finance Facility (IFF). It seeks to double aid for the world's poorest countries from US$ 50 billion a year today to US$ 100 billion a year up to 2015 by frontloading the disbursement of expected future increases in ODA. The IFF would issue bonds on financial markets, backed by pledges from participating governments. It would produce a stable resource, whose availability would not be dependent on the time schedule of donors' budgetary contributions. It would be flexible and could be implemented, if necessary, on a regional basis or with a limited number of participating countries.

- Environmental taxes and the fight against climate change deliver stable and predictable long-term funding while at the same time producing a 'double dividend' by offsetting a global public bad.

- Similarly, a tax on arms could be levied on all purchases – whether domestic or international – and implemented by all producing countries in the world to be morally significant and economically non-distortionary.

4 An updated list of the Leading Group's membership can be found on their website, http://www.leadinggroup.org/article48.html.

- Taxes on financial transactions, with a special focus on foreign exchange transaction taxes. When considered purely as revenue-raising instruments, the rates would have to be set very low so as to minimise or eliminate any adverse impact on market efficiency.

- Special taxation of multinationals. A surtax on the profits of multinationals might be seen as a normal counterpart to the benefits they derive from globalisation.

- Voluntary contributions. Schemes of voluntary financial assistance could be proposed or encouraged by associating voluntary donations when purchasing goods or services, paying utility bills or filing tax returns. The contribution is collected with the sales process, and might be more appropriate than taxes when addressing households.

- Finally, the use of Special Drawing Rights and the creation of a Global Lottery for development purposes are being examined. Other initiatives of innovative financing currently explored are related to: the fight against tax evasion and illegal financial flows which deprive developing countries of significant resources; the reduction of the costs of migrants' remittances and channelling of migrant transfer toward productive or social investment in their country of origin.

3.3 Lessons learned and principles to support new innovative financing initiatives

Drawing from the experience of the past decade, there are several lessons and principles which can be extracted to inform future applications of innovative finance, particularly in the area of food security:

- **Innovative finance needs to be goal-oriented**. Innovative finance should be a tool to address clearly defined problems, gaps and issues. Understanding the problem statement and the specific needs to be addressed will help to ensure that practical and appropriate solutions are developed and supported within the realm of innovative finance.

- **Innovative finance will not replace traditional ODA and fund-raising**. Innovative fund-raising is not a substitute for traditional efforts to mobilise ODA, in particular, concessional flows; rather, it plays a complementary and catalytic role.

- **So far innovative finance has played a significant role in deploying funds through innovative financial solutions on the ground**. While innovative finance will likely account for a minority share of ODA, innovation of uses has provided and will continue to provide a broad and robust menu of financial tools and solutions to address market inefficiencies and further incentivise investments from private resources.

- **Innovative finance creates new opportunities for the private sector to contribute to development**. Innovative finance creates a window for private funds – from individuals and commercial actors – to better contribute to development goals.

- **It is important to demonstrate progress to sustain momentum**. Maintaining the attention and commitment of potential donors and investors will require demonstrating progress in terms of efficiency and effectiveness of uses (Girishankar 2009; Brookings Institute 2008).

4. Innovative financing opportunities for education in SSA

This section presents examples of innovative finance mechanisms that have been proposed or are currently used to mobilise resources, improve allocation of funding, and increase the quality of outcomes. Unlike sectors such as health and energy, there are limited examples of applying innovative finance to address education challenges. The examples presented below are the most prominent ideas. Since few of these ideas have been implemented, there has been limited opportunity to evaluate their impact.

Our desk review and interviews explored two broad themes of innovative finance: innovation in sources of financing and innovations in uses of financing. Within the category of sources of financing, we identified four categories of stakeholders that are involved in mobilising resources:

- International donors;
- Impact investors (including both equity- and debt-based approaches);
- Philanthropic organisations;
- Diaspora community.

Within the category of innovation in uses of financing, we identified three major stakeholders:

- Schools;
- Families and students;
- Teachers.

For each of the stakeholders listed above, we developed case studies to describe the mechanisms' design and implementation, and provided a perspective on their overall potential for education. When compared with other sectors, we found relatively few examples of innovative finance mechanisms for education. This may suggest that there are opportunities for new approaches, and that more research and coordination is needed to fully explore the potential of innovative finance to address sector-specific or country-specific challenges.

4.1 Mechanisms for innovative finance in education: Sources of financing

Examples of innovative finance mechanisms that can be used to increase the sources of financing are presented in this section. While these mechanisms are not an exhaustive list of the mechanisms that exist, they provide an indicative list of the possibilities for mobilising additional resources.

Specifically, the paper presents case studies from the following stakeholders:

- Innovative finance from an international donor: Cash on Delivery (COD);
- Innovative finance from an impact investor (equity finance): The Education Venture Fund (EdVF);
- Innovative finance from an impact investor (debt finance): Indian School Finance Company (ISFC);
- Innovative finance from a philanthropic organisation: The 2010 FIFA World Cup Legacy Trust;
- Innovative finance from the diaspora community: Diaspora bonds.

Common themes emerge when considering these mechanisms.

- **Scale of funding**. All of the mechanisms that have been proposed for financing education could be applied to any sector. As a result, while these mechanisms may be useful for increasing resources overall, it is unlikely that they will increase resources for education disproportionately to other sectors. The one exception may be impact investors, who are creating education-focused investment vehicles to capitalise on the rising demand for private education services.

- **Feasibility**. Only two of the mechanisms – philanthropic fund raising and impact investing – have been implemented. Other mechanisms that we identified are promising, but unproven, concepts. This may reflect the nascent state of innovative finance in general and innovative finance for education in particular.

- **Relevance and acceptance**. For countries that struggle to mobilise sufficient resources for financing education, the mechanisms address fundamental demands of the education system. However, each of the mechanisms may struggle to be accepted by certain stakeholders. Impact investing, for example, will require the government to work with private providers of education on a large scale before making a significant impact.

Each of the examples is described in more detail below.

4.1.1 International donors: Cash on Delivery (COD)

COD is an approach that aims to link payments to a single specific outcome. For example, donor governments would pay a fixed sum for each additional child who takes a standardised competency test in the final year of primary school. The recipient government has more flexibility to disburse funds as it deems appropriate and is able to participate in a more transparent process whereby the government is accountable to its citizens.

COD holds promise as a vehicle to more closely link funding streams with desired outcomes. It has successfully been used to mobilise resources in health. While there are early pilots for primary education programmes in Ethiopia, the mechanism's application to education is largely untested. Furthermore, the vehicle must be carefully designed to alleviate concerns with measuring outcomes and creating incentives that beget unintentional consequences.

Cash on Delivery (COD) Aid	
Description	
Objective	• To provide additional funding to developing countries in return for achieving progress against pre-agreed targets.
Description	• COD Aid is a proposal developed by the Center for Global Development in Washington. • The key features of COD Aid are (i) a focus on outcomes rather than inputs and (ii) a change in incentives to encourage donors to take a 'hands-off' approach to the design of programmes in return for greater transparency and independent verification of progress achieved. >>

Cash on Delivery (COD) Aid	
Description (cont.)	• For example, one or more donors sign a legally binding agreement with one or more countries to achieve an increase in the number of children completing an assessment test at the end of primary school. At the end of the contract period (typically five years) the country would receive the agreed payment once the progress had been confirmed against the benchmarks. • COD Aid needs to be additional and complementary to existing aid flows, and a mechanism such as an escrow account needs to ensure that the aid is delivered as promised.
Status of implementation	• The Center for Global Development is currently working with technical experts, potential donors, and partner countries to design pilots of COD Aid, and to design research programmes to accompany the pilots (Birdsall & Savedoff 2010). • DFID is currently piloting a Result Based Aid Project in the education sector in Ethiopia, which shares many features with the COD model. • Concerns have been raised if the structure of the project could lead to incentives to cheat on the exam and if the exams could be designed in a way that ensures comparability.
Source of funding	• Official and private donors.
Geography	• The approach is not restricted to specific countries. • The Center for Global Development has conducted feasibility studies in Liberia, Ethiopia and Malawi.
Impact	
Impact	• As the approach is currently in the pilot phase, the impact cannot be evaluated yet.

4.1.2 Impact investors: The Education Venture Fund (EdVF) and Indian School Finance Company (ISFC)

Impact investing is a nascent trend of investing for positive social and environmental benefit, and the term has since been adopted globally by a wide variety of investors, intermediaries and entrepreneurs. An emerging definition of impact investing focuses on the intent of the fund manager. JP Morgan and the Rockefeller Foundation define impact investing as 'an investment designed with intent to generate positive social and/or environmental impact'. The definition also specifies that 'the business into which the investment is made should be designed with intent to make a positive impact', and goes on to summarise some of the ways in which businesses can deliver positive outcomes specifically to the base of the pyramid: 'through their methods of production, such as by providing quality jobs, facilitating local asset accumulation, purchasing inputs from local or smallholder providers, or promoting energy efficiency; and through the goods or services they make available to low-income consumers, such as affordable healthcare, clean water, education or access to energy' (JP Morgan & the Rockefeller Foundation 2010).

Within the context of education, investors are exploring both equity- and debt-based models. Typically, these models support the creation and operation of for-profit, low-cost schools although there are also models that aim to capture private education services for expatriates and local elites. This model offers a sustainable funding stream that is directly linked to increased demand for education. In addition to mobilising additional resources for education, this mechanism also addresses concerns with government capacity to build and staff new schools.

Private equity funds that exclusively focus on education in Africa are currently limited in number and scale. Likewise, financing for low-cost private schools in the developing world is still limited, as traditional microcredit loans are typically too small for schools, and bureaucratic hurdles make access to commercial loans difficult. Specialised financing for low-cost private schools is still limited, but gains increased attention in the impact investing sphere. Given the important role of the public sector in financing and providing education, the scalability of these models is yet unproven.

Within the context of impact investing we examined two cases. The first, the Education Venture Fund, a private equity fund, invests in new schools that need capital to commence operations. The second, the Indian School Finance Company, focuses on established schools that require debt capital in order to expand.

The Education Venture Fund (EdVF)	
Description	
Objective	• To provide access to capital for innovative projects that have the potential to generate revenue streams while delivering a high social impact in the education sector; • To mobilise finance and promote innovation in the education sector; • To develop standards and models for the industry.
Description	• The Education Venture Fund is a venture capital fund that seeks to mobilise additional resources for education through a range of mechanisms (bond issues, private giving, leveraged investments, voluntary levies). • The EdVF is envisioned as a US$ 55 million fund, with a grant window of US$ 20 million and an investment window of US$ 35 million. • The grant window will be used to invest small amounts in about 30 start-ups and promising innovations. • The investment window will be used for both proven projects and follow-on investments that will be made based on the grantee's actual performance under the grant window. • The Fund will provide hands-on technical assistance to its grantees early in the process in the form of accounting, legal, business development, human resources and other support services.
Status of implementation	• The management is currently fundraising for the project.
Source of funding	• EdVC targets impact investing as well as philanthropic capital.
Implementing disbursement partners	• The Fund Management Company is managed by Nicholas Burnett and Desmond Bermingham, who have more than 50 years of experience in the education and development sector between them.
Geography	• The Fund's focus areas are South Africa, Tanzania, Uganda, Rwanda and Ethiopia (Results for Development 2011).
Impact	
Impact	• As the fund has not invested in projects yet, the impact cannot be evaluated to date.

Source: Leading Group for Innovative Finance for Development (2012)

Indian School Finance Company (ISFC)	
Description	
Objective	• To provide loans to affordable private schools in a professional and customer friendly manner for school improvement; • To build a network of solution providers focused on the affordable segment which can offer solutions to improve private schools (www.isfc.in).
Description	• ISFC is a non-banking finance company located in Hyderbad, India, founded by Gray Ghost Ventures, an impact investing firm, in 2008. • The company provides medium-term loans at market rates and technical support to affordable private schools in India. • Loans are typically used for infrastructure investments (such as new classrooms, computer labs, and furniture), which allow an increase in enrolment and revenue. • ISFC estimates that approximately 45 000 private schools for the low-income segment exist in India. However, these schools lack access to capital, as they are typically not targeted by microfinance institutions or commercial banks (Ayllu Initiative n.d.).
Status of implementation	• ISFC was founded in 2008 and currently operates branches in seven Indian cities with a staff of more than 50 people.
Source of funding	• Impact investors; • Capital market.
Geography	• India.
Impact	
Impact	• According to Steve Hardgrave, founder of ISFC, the company has made 240 loans totalling US$ 4.2 million by the end of 2010, which led to 33 000 additional students attending private schools and 950 new school jobs (Kwan 2012).

4.1.3 Philanthropic organisations: The 2010 FIFA World Cup Legacy Trust

Associated with the 2010 World Cup, the fund raises US$ 100 million for community development. While it has been widely promoted as an innovative finance vehicle, three characteristics may inhibit its effectiveness as a tool to sustainably mobilise resources for education. First, it has a general mandate that includes education as well as healthcare and humanitarian activities and which will dilute the impact of funding for education. Second, its funding stream is dependent on the philanthropic priorities of FIFA, which could shift in the future. Third, it focuses primarily on promoting non-professional football rather than the specific challenges facing the education sector. These design features reflect broader limitations for philanthropic and corporate social responsibility models to promote sustainable innovative finance mechanisms.

The 2010 FIFA World Cup Legacy Trust	
Description	
Objective	• To support education and healthcare initiatives of NGOs that use football as a vehicle for community development; • To promote and extend the development and reach of the game of football within South Africa (2010 Legacy Trust n.d.).
Description	• The 2010 FIFA World Cup Legacy Trust is an entity established by FIFA and SAFA (the South African Football Association) at the end of the 2010 FIFA World Cup. • The trust amounts to US$ 100 million, US$ 80 million of which is allocated directly to social community projects. • The trust will be administered by the international auditing company Ernst and Young while the trustees, consisting of representatives from FIFA, SAFA, the government and the private sector, will evaluate which public-benefit projects are funded. • Projects will be selected within the following four areas: – Football: administration, development, coordination or promotion of non-professional football; – Education and development: provision of education by a school as defined in the South African Schools Act; – Healthcare: provision of healthcare services to disadvantaged communities, including prevention of HIV infection and other preventative and education programmes; – Humanitarian activities: community development for disadvantaged persons and anti-poverty initiatives (FIFA n.d.).
Status of implementation	• The Trust opened on 1 June 2012 for two months for the first applications for funding.
Source of funding	• Revenues of the 2010 FIFA World Cup.
Geography	• The first trust fund has been implemented in South Africa.
Impact	
Impact	• As the trust is currently selecting projects for funding, the impact of the trust cannot be evaluated to date.

4.1.4 Diaspora community: Diaspora bonds

The idea of diaspora bonds is not a new concept: India, Israel, Sri Lanka, South Africa and Lebanon, among others, have already tapped their diaspora to raise much needed capital for development activities (Ketkar & Ratha 2007). This mechanism, however, remains relatively unexploited, especially in Africa and Latin America. For countries with a significant number of expatriates, the advantages are clear: emigrants are more likely to invest in their country of origin for patriotic reasons, and are more likely to invest in their country of origin, as opposed to international investors, because their perception of country risk will likely be lower as well. Diaspora bonds present a significant opportunity to finance large public goods such as infrastructure and, potentially, education.

According to World Bank Senior Economist Dilip Ratha, for sub-Saharan Africa issuing these bonds and overcoming any weaknesses in the legal and regulatory systems in the region could help investors tap US$ 5 billion to US$ 10 billion annually. 'Preliminary estimates suggest that sub-Saharan African countries can potentially raise US$1 to US$3 billion by reducing the

cost of international migrant remittances, US$ 5 to US$ 10 billion by issuing diaspora bonds, and US$ 17 billion by securitising future remittances and other future receivables,' said Ratha (Ratha & Plaza 2011).

Like COD Aid (discussed above), diaspora bonds are general mechanisms that can be applied to a range of development challenges. As a result, the resources generated by the diaspora bonds would likely be allocated to a number of government priorities.

Diaspora bonds	
Description	
Objective	• To raise large scale funding from overseas diaspora for the support of national budgets and the filling of financing gaps in development programmes.
Description	• A diaspora bond is a debt instrument issued by a country (or a private corporation) to raise financing from its overseas diaspora. • Israel and India have been on the forefront of issuing diaspora bonds, raising nearly US$ 44 billion to date. • Credit enhancements for diaspora bonds may be required if investors have concerns about the country's ability to service debt in a timely fashion. Such enhancements could come in the form of securitisation of existing or future flow assets or guarantees from a reputable donor agency. • Investor concerns can also be addressed by including conditions on how educational investments are managed as well as by providing incentives for countries to produce the desired results. • World Bank estimates suggest that annual diaspora savings of SSA could be in the range of US$ 5 to US$ 10 billion. • In the education sector, the earning stream for a diaspora bond would most likely be generated through private schools or the imposition of user fees for various services.
Status of implementation	• Diaspora bonds for education have not been implemented yet.
Source of funding	• International diaspora of country issuing the bond.
Geography	• Applicable to every country with a large overseas diaspora; • To date mainly used in Israel, India, Sri Lanka and South Africa.
Impact	
Impact	• Diaspora bonds have been successfully utilised for balance of payments and national infrastructure projects (Ketkar & Ratha 2007). – Diaspora bonds were successful in raising US$ 33 billion for Israel and US$ 11 billion for India to date. – Israel has received a large 'patriotic discount' of approximately 4% on its bonds, whereas India only received a small discount, if at all, on its diaspora bonds. • No diaspora bonds for education are known of yet. However, the need for a stable earnings stream from education for servicing the bonds could raise equity questions, as education for marginalised populations is unlikely to generate enough earnings.

Source: Lending Group for Innovative Finance for Development (2012)

4.2 Mechanisms for innovative finance in education: Uses of financing

Examples of innovative finance mechanisms that can be used to improve the use of financing are identified in this section. While these mechanisms are not an exhaustive list of the mechanisms that exist, they provide an indicative list of the possibilities for improving the efficiency of spending in education and enhancing its effectiveness.

Specifically, the paper presents case studies from the following stakeholders:

- Innovative finance for schools: low-cost private education;
- Innovative finance for families and students: the use of vouchers in Columbia;
- Innovative finance for teachers: pay-for-performance in OECD countries.

Common themes emerge when considering these mechanisms:

- **Feasibility**. All three mechanisms would require shifting expectations by key stakeholders. In the case of vouchers, schools would have to relinquish their monopolies on local populations and be prepared to compete for students with other schools. In the case of pay-for-performance, teacher unions will have to be willing to change their compensation structure. In the case of low-cost private education, parents and the government will have to be willing to allow the private sector to play a larger role in education. In addition, few of these mechanisms have been deployed at scale in Africa.

- **Relevance and acceptance.** All three mechanisms are targeted to address specific challenges of the education system by promoting efficiency. Given the heterogeneity of school systems in Africa, none of the mechanisms are appropriate everywhere. Countries should evaluate the specific challenges that are relevant to their environment.

Each of the examples is described in more detail below.

4.2.1 Schools: Bridge International Academies (BIA)

Low-cost schools have grown in recent years. The programmes propose innovative approaches to running for-profit schools such as BIA in Kenya and Omega Schools in Ghana. BIA has been operating a franchise-like network of for-profit private schools in Kenya since 2009. The company has adopted a highly standardised approach that focuses on the entire value chain of education that delivers education for less than US$ 4 per student per month. It is currently evaluating the quality of the education, but in early tests found that its students outperformed their peers in core reading skills by 100%.[5]

These models show promise and could complement public provision of education. They are cost-effective – BIA is meeting their objective of delivering a quality education for US$ 4/month per student – and designed to be scalable – BIA's franchise-like model is highly structured, broadly adaptable and specifically designed to be replicated.

5 http://www.bridgeinternationalacademies.com/Bridge_International_Academies/Results.html.

Schools: Bridge International Academies (BIA)	
Description	
Objective	• To launch a large-scale network of high-quality, ultra low-cost, for-profit primary schools; • To give every child access to high quality education.
Description	• Bridge International Academies currently operates 83 schools across Kenya catering for 26 000 pupils.[6] • It profitably delivers education for US$ 4 per child per month through a model collectively referred to as 'school-in-a-box'. • The franchise-like model includes all of the tools, curriculum, materials, systems, processes, training programmes, technology, research and monitoring needed to open and run an affordable but high-quality school. • Through household surveys, GIS-enabled survey equipment, satellite imagery, statistical tools and repeatable protocols, Bridge collects data, analyses it, and uses it to drive decisions about everything from plot selection to fee structures, school design and school improvements. • BIA recruits school managers and teachers from the communities it serves. A curriculum team develops word-for-word scripted lesson plans for every concept and skill taught every day in the classrooms.
Status of implementation	• BIA has launched its first schools in Kenya in 2009 and currently operates more than 80 schools in the country.
Source of funding	• Private equity funds and venture capitalists; • High impact philanthropy; • School tuition.
Geography	• Kenya.
Impact	
Impact	• BIA is currently evaluating the quality of the education, but early tests found that its students outperformed their peers in core reading skills by 100%.

Source: www.bridgeinternationalacademies.com

4.2.2 Families and students: Education vouchers in Colombia

Vouchers are an appealing mechanism to leverage innovative finance for education. By subsidising the cost of education through vouchers, governments allow families and students to have more choice in which school they select. Given a broader range of options, including private schools, the expectation is that families will seek out better quality education.

There has been limited opportunity to test this theory. The evidence is limited to the experience of Columbia and Chile almost 20 years ago. While the result in Columbia was positive, comparing the results with more mixed results in the United States suggests that effects may depend on the gap in the quality of public and private schools.

6 http://www.capitalfm.co.ke/news/2012/10/bridge-international-academies-feted-at-african-awards/.

Education vouchers in Colombia	
Description	
Objective	• To expand private provision of public services; • To increase secondary school enrolment rates.
Description	• The Colombian government established the Program for Coverage Expansion in Secondary Education (PACES) in late 1991. • Since it was inaugurated, PACES has provided more than 125 000 pupils with vouchers covering more than half the average cost of private secondary school. • The PACES programme operated in all large cities in the country and targeted low-income families by offering vouchers to children living in neighbourhoods classified into the two lowest socio-economic strata who attended public primary schools. • The maximum value of the voucher (US$ 190) was initially set at a level equivalent to the average tuition fee in low- to middle-cost private schools in Colombia's three largest cities. • However, monthly fees for private schools attended by voucher applicants averaged about US$ 340 in 1998, therefore most voucher recipients had to supplement the voucher with private funds.
Status of implementation	• The Colombian government implemented the voucher programme in 1991.
Source of funding	• Government.
Geography	• Available evidence on the effects of education vouchers has focused on the experience in Chile and Colombia.
Impact	
Impact	• A Randomised Natural Experiment has found positive short-term effects of the voucher programme. – As in many cities vouchers were awarded by lottery, the research compared outcomes of lottery winners and losers. – Lottery winners were 15 percentage points more likely to be attending private schools than public schools. – Lottery winners were 10 percentage points more likely than losers to have completed eighth grade. – Lottery winners worked 1.2 fewer hours per week, which suggests that they had a greater focus on schooling than the losers. – Lottery winners were able to attend more expensive private schools. • A second assessment of PACES examined its longer-term effects and also points towards a positive impact of the programme. – Voucher winners had substantially higher high school graduation rates and test scores than losers. – The research suggested that the PACES programme increased learning not only by increasing incentives for students to avoid repeating grades, but also in other ways such as by increasing school choice.

Source: World Bank (2009a and b)

4.2.3 Teachers: Performance-based pay for teachers in OECD countries

As discussed above, teacher salaries make up a dominant portion of school operating costs and developing mechanisms to reward good performance could potentially create incentives to improve teacher efficiency. There is a range of structures for pay-for-performance vehicles including rewarding teachers based on how students perform on standardised tests as well as input metrics such as how often a teacher is present. For example, for countries that suffer from high degrees of teacher absenteeism, the second type of mechanism may be appropriate.

In designing pay-for-performance structures, rewards can be targeted to individual teachers, groups of teachers or the whole school. While individual rewards may motivate people to work harder, it can be difficult to distinguish the impact made by an individual teacher. Group rewards have been found to promote staff cohesion, productivity and feelings of fairness. School-wide rewards can encourage collaboration among teachers to ensure that the school meets certain criteria, but they may dilute the link between individual effort and reward.

Implementing performance-based mechanisms, however, can be complicated. Teachers – and teacher unions – must consent to the revised terms of their contracts. Measures of teacher performance need to be valid, reliable and considered by teachers themselves to be fair and accurate. Databases need to be able to track student progress from year to year, to give an indication of what any individual teacher has added to a student's achievement. In addition, pay levels are only part of the work environment. Raising the status of teaching, offering real career prospects, and giving teachers responsibility as professionals and leaders of reform have been successful in making teaching an attractive profession.

Performance-based pay for teachers in OECD countries	
Description	
Objective	• To reward teachers who perform well rather than paying all teachers equally; • To motivate teachers; • To build public support for schools due to a clearer connection between spending on schools and outcomes.
Description	• Pay-for-performance for teachers has been introduced in OECD countries in different ways: – Some countries reward outstanding teaching performance through a higher base salary, – For some countries it is a criterion for deciding on supplemental payments that are paid annually, – Other countries use teacher performance as a criterion for deciding on supplemental incidental payments. • Measures of teacher performance also vary significantly between countries: – Some measures are based on multiple observations by trained evaluators using a standards-based rubric. – Other measures in include contributions to school-improvement efforts or performance in specific areas based on external certifications. – Still others include student performance on standardised tests.
Status of implementation	• About half of OECD countries have introduced some form of performance-based pay for teachers.
Source of funding	• Public and private funding for schools. >>

Performance-based pay for teachers in OECD countries	
Geography	• OECD countries.
Impact	
Impact	• In a study on the effects of pay-for-performance in OCED countries, no overall relationship between average student performance in a country and the use of performance-based pay schemes could be found. • However, in countries with comparatively low teachers' salaries (less than 15% above GDP per capita), student performance tends to be better when performance-based pay systems are in place, while in countries where teachers are relatively well-paid (more than 15% above GDP per capita), the opposite is true.

Source: OECD (2012b)

4.3 Alignment of innovative finance initiatives to challenges for education in Africa

Successful innovative finance mechanisms must be closely aligned with the challenges of the country in which they operate. Given the diversity of contexts and environments in Africa, there is no single solution for all countries. Based on our analysis of the challenges to education discussed in section 2, we identified three challenges that African governments frequently confront when financing education. As stated above, these challenges do not apply to all countries but are indicative of common problems.

4.3.1 Using innovative finance to mobilise additional resources

Innovative finance is often considered a mechanism to support fundraising of additional resources. During our review of potential innovative finance mechanisms for education, three potential ways for governments to mobilise funds are identified: by aligning with a philanthropic programme such as the FIFA World Cup Legacy Trust Fund, by raising a bond from the diaspora community, and by encouraging impact investment.

From these options, diaspora bonds and impact investing hold the most promise, but both options have characteristics that could make them unfeasible. For countries that have large expatriate communities, diaspora bonds are potential mechanisms for governments to leverage the contributions of their citizens elsewhere in the world. While there is the potential for governments to raise substantial amounts of money, funding for education would have to compete with other sectors of the government such as health and infrastructure. Diaspora bonds have been used successfully in Israel and India, but they are not proven mechanisms in Africa or specifically for education.

Impact investing models to fund education have been demonstrated to be feasible. Impact investments for specific sectors such as clean energy already exist in Africa, and education focused funds have proven successful in other developing countries. In order to be successful, however, governments and citizens would need to embrace the private sector as a provider of education services. This paradigm may not be appropriate for all countries.

4.3.2 Using innovative finance to increase government absorptive capacity

In general, interventions such as policy reform and capacity building are better suited than innovative finance to address the challenge of increasing government absorptive capacity. Within the mechanisms that we reviewed, a potential approach would be for governments to

leverage private sector models for providing education services. Low-cost, for-profit schools are demonstrating that they can provide high-quality education for less money than governments and provide services in less accessible places such as rural communities and urban slums.

Notably, governments could pursue this model while remaining responsible for funding education. By contracting directly with for-profit providers of education, governments could help them achieve scale more quickly, while retaining the ultimate responsibility for providing education as a public good. This model could also be pursued in conjunction with a voucher programme.

4.3.3 Using innovative finance to make education services more efficient and effective

We identified three innovative finance mechanisms that have been used to increase the efficiency and effectiveness of education services: COD approaches to aid, vouchers, and pay-for-performance systems. The UK's Department for International Development (DFID) is currently testing a pilot programme to explore the feasibility of COD Aid in Ethiopia, but neither pay-for-performance models nor vouchers have been applied to education challenges in Africa. All three structures could potentially shift resources from established actors in the country. As such, they will require political support to implement.

4.4 Recommendations

There is no one-size-fits-all solution for financing challenges to education. By considering a broad array of possibilities and by developing frameworks to identify the strengths and weaknesses for specific contexts, governments can implement innovative financing strategies that are appropriate for their specific context. The following recommendations are high-level suggestions on steps that can enable innovative finance mechanisms.

4.4.1 How can policymakers support innovative finance?

From a policymaker's perspective, the most important tasks are to clearly understand the challenges facing their government and country, and to prioritise the appropriate mechanisms to address that challenge. For example, if the government does not have the absorptive capacity to support more schools, raising a diaspora bond would not be effective.

As part of this assessment, policymakers should evaluate the political will to make changes. This is particularly the case when exploring solutions that can potentially shift resources to increase efficiencies. In addition, initiatives to implement private sector solutions that provide a public good such as education will require the broader public to accept new models. Whether or not there is the political will to reallocate resources and to encourage a larger private sector role in education should be the basis for a decision about whether or not to implement an innovative finance mechanism for education.

4.4.2 How can civil society support innovative finance?

Civil society already plays a large role in the education sector in Africa: households provide 25% of the expenditure and philanthropic organisations, in particular faith-based organisations, provide significant services. Given the importance of this role, civil society has an opportunity to explore new approaches to financing and providing education. This includes having a community take a loan to finance capital improvements and having existing schools explore the techniques and approaches of innovative private sector schools.

4.4.3 How can the private sector support innovative finance?

Through social businesses, such as low-cost schools, and impact investment funds, the private sector is at the forefront of innovative finance efforts in education. In order to build on their successes, these initiatives must demonstrate that they can provide education at the same or superior quality as the public sector alternative.

In addition, private sector actors should collaborate as much as possible with the public sector. The scale of the challenge requires cooperation and the emergence of new public private partnerships. By integrating new approaches with the existing system, private sector actors are more likely to contribute to a scalable solution that can provide education for all.

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