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Overview of Child Development Accounts in developing countries

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ABSTRACT

Child Development Accounts (CDAs) as a matter of policy have existed for some time, though predominantly in developed countries. While there are at least a few government social programs with CDA components in the developing world, such policies have yet to gain significant traction. This paper finds that despite this lack of policy movement, CDAs do exist in developing countries in a variety of forms and delivered by a diverse group of institutions. Government-linked institutions (such as savings and post banks); non-governmental institutions (such as credit unions and NGOs); and commercial financial institutions are all innovating in CDA design and delivery. This paper offers a review of how CDAs exist in developing countries, including the types of institutions offering CDAs, and design features and delivery mechanisms common among such accounts. The paper concludes with implications of this analysis for policymakers and researchers.

1. Introduction

The subject of CDAs in the developing world has received relatively little scholarly attention. This, in large part, is because CDAs have traditionally been a conception of social policy makers and scholars in developed countries. In fact, to date, no CDA policy exists in developing countries that fits with the traditional policy model of comprehensive government CDA policies in places such as the United Kingdom, Singapore, and South Korea, or those advocated in the United States.[3] Social policymakers in developing countries face more challenges in launching CDA policies than their counterparts in developed countries. These challenges include scarcer resources for competing social priorities and poorer banking infrastructures.

However, CDAs do exist in developing countries. Policy and product innovations on CDAs have emerged *in a variety of forms* in developing countries offered by diverse institutions, including (a) governments, as a component of social assistance programs; (b) non-governmental groups including credit unions, MFIs, NGOs, and social policy researchers; (c) government-run banks; and, to a lesser extent, (d) commercial financial institutions.

At its most basic level, this paper presents evidence of the existence of CDAs by reviewing several different types of such accounts in operation in developing nations. However, to do so we used a broader definitional view of CDAs than is common in the CDA field. In this paper, we conceive of CDAs as *savings policies, programs, or products for children with features or delivery mechanisms that have the potential to contribute to a child's social and/or economic development*.

This paper provides an overview of the breadth of CDAs in operation in the developing world. More specifically, it analyzes the variety of innovative design features and delivery mechanisms of CDAs as offered by a diverse range of institutions. It also addresses a number of policy and scholarship implications of our study and analysis. For example, the study of current trends in developing country CDAs could provide useful lessons to (a) developing country policymakers interested in leveraging existing CDA platforms for more broad-based CDA policies; (b) developed countries policymakers considering new design or delivery pathways to improve the impact of their CDA policies, and; (c) social policy researchers aiming to deepen scholarship on the design and impact of CDAs.

This paper proceeds as follows: this first section goes on to explain the methodology and limitations of our research, and offers a brief note of historical context of CDAs in developing countries. The main section offers a typology of the types of institutions offering CDAs in the developing world, and analyzes a number of innovative design features and delivery mechanisms of CDAs in developing countries. The final section offers (limited) data on uptake of CDAs in developing

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[3] For an overview of comprehensive government CDA policies, see Loke and Sherraden, 2008.

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countries, and implications of our analysis for policymakers and social policy researchers. The appendix offers a chart comparing the features of several CDAs from various regions of the world.

2. Materials and methods

This paper provides an analytic overview of current trends in CDAs in developing countries. Data presented and analyzed in this paper were collected primarily through an extensive literature review as well as interviews with a number of institutions that offer CDAs. [4] The paper is not designed to give an exhaustive list of all CDA features and delivery mechanisms, but to highlight some features and mechanisms that have the potential to contribute to a child's development. Lack of scholarly research on CDAs in developing countries limits the selection of programs and products with supporting empirical evaluation as few impact evaluations or studies exist. The programs included in the paper were selected, at the very least, by determining whether or not such programs fit the paper's conception of CDAs, i.e. those accounts for children that have features or delivery mechanisms that have the potential to contribute to a child's development. We excluded from our discussion savings products or programs that we believe do not fit this conception. This rationale avoided indiscriminate selection of savings accounts for children, which, viewed simply as a savings account offered to children, may exist in every developing country.

3. Theory: Historical context of CDAs in developing countries

Savings accounts targeted at, or at least available to, children are not a new phenomenon in the developing world. During the 1960's, 1970's, and 1980's, governments in the developing world created networks of state-owned or state-subsidized savings and retail banks as part of an effort to mobilize deposits from the “mass” population, particularly in rural areas (Young and Vogel, 2005). While this effort increased access to savings account for low-income clients and their children, the institutions themselves were often plagued by poor management and political interference. Numerous failures and bailouts in the 1970's and 1980's led to pressure from the World Bank and IMF, and fiscal pressures from within governments to privatize, liquidate or sell these banks (Young and Vogel, 2005). Such restructuring led to many banks falling out of favor with clients, and many savings accounts ended up dormant. Banks in time reacted to these pressures by closing dormant accounts and de-emphasizing products/programs that were not efficient or sustainable. While there has been resurgence in savings and retail banks in recent years with the expansion of the microfinance movement and bottom of the pyramid (BOP) market outreach, only a small number of these have successfully created child-focused savings products that have led to substantial deposit mobilization among low-income families (World Savings Banks Institute, 2004).

At the same time, savings accounts have been available to children in middle-income urban populations in developing countries for many decades. However, these products often have few features that set them apart from the standard savings accounts offered by the banks. These products are usually controlled by parents and are considered part of the family's portfolio, rather than children's property. More importantly, these CDAs are usually not targeted at poor children.

Our research provides evidence that CDAs do exist in the developing world, and that in recent years, a number of institutions have introduced, or announced plans for, innovative accounts for children. In the next section, we examine the types of institutions offering CDAs and their objectives for offering such accounts; and then go on to survey the variety of account features and delivery mechanisms.

4. Results: A survey of CDAs in developing countries

The experience of institutions in the developing world with CDAs is broad and varied. This section examines a typology of CDAs in developing countries, including the types of institutions offering CDAs; their objectives for doing so; some innovative design features; and delivery mechanisms employed to facilitate their uptake. As the discussion below indicates, there is no universal CDA model, and the design of CDAs is closely linked to the objectives of the institutions offering them (Fig. 1).

4.1. Institutions offering CDAs and their objectives for offering CDAs

Currently, a diverse range of institutions is offering a variety of CDAs across the developing world.[5] These include local and national governments, non-governmental institutions, state-owned FIs, and commercial FIs. These institutions design CDAs to meet one or more particular economic and/or social objectives, which are most often closely linked to their respective institutional missions. These objectives can range from purely financial (i.e. earning profits for shareholders) to purely social (i.e. reducing poverty in areas in which they operate). However, often we observe a blend of the two.[6]

4.1.1. Local and/or national governments

There are relatively few examples of governments offering CDAs as part of a structured social policy. Where they do exist, such as in Mexico and Senegal, they are generally designed to spur financial inclusion, reduce poverty, and increase economic equity.

4.1.2. Non-governmental institutions

NGOs tend to offer CDAs as a strategy to improve socioeconomic development of poor children and their families. They are generally less motivated by financial objectives, though a number of non-governmental MFIs may consider deposit mobilization as a mean to financially sustain their organizations. NGOs may see fostering a habit of savings as a strategy to help children accumulate assets necessary to live productive adult lives.[7] Others see offering CDAs held at formal FIs as giving children physical evidence (i.e. in the form of an account passbook) of their identity, which can offer a link to the financial and economic mainstream. A majority of NGOs offering CDAs also incorporate financial literacy into their programs and products. Building financial literacy from a young age can be important because it can create savvy consumers of financial products, such as microloans. While some institutions offer financial education and training as a component of their overall CDA offering, others believe that the presence of a CDA itself can contribute to financial literacy. They contend that having ownership of and making deposits in savings accounts can help a child learn financial skills such as

[4] The bulk of these interviews were carried out in the second half of 2007 and data from these interviews were previously presented in Meyer, Zimmerman and Boshara, 2008.

[5] For an introduction to, or further reading on, CDAs in developing countries, see Meyer et al., 2008.

[6] CSR, as defined by the International Finance Corporation, is “the commitment of businesses to contribute to sustainable economic development by working with employees, their families, the local community and society at large to improve their lives in ways that are good for business and for development” (International Finance Corporation , 2008).

[7] Institutions may also see CDAs as a channel to integrate parents and other family members of the child account holders in the banking system (i.e. when a relative visits a bank to make a deposit in the child's account, the bank has an opportunity to encourage the adult to open an account of their own).

Institutions	Objectives	Features	Delivery Mechanisms
• Local and/or National Governments • Non-governmental Institutions • State-Owned Financial Institutions • Commercial Financial Institutions	• Financial (cultivate clients, increase profits, mobilize resources from savings) • Social (reduce poverty, increase equity) • Blended (CSR, financial inclusion, financial literacy, any mix of the above)	• Low Minimum Initial Deposit Requirement • Modest In-Kind and Financial Incentives • Significant Financial Incentives • Withdrawal Restrictions • Ability of Children to Control Accounts	• Operating Deposit Centers at Schools • Remote Deposit Collection

Fig. 1. Typology of CDAs in developing countries.

budgeting, understanding the power of compound interest, and learning how banks work.[8]

4.1.3. State-owned financial institutions

State-owned financial institutions, such as savings and post banks, often operate under a mandate of financial inclusion of the poor and/or financially excluded. These institutions view fostering financial literacy, as well as a habit and/or culture of savings among children as a key element of their institutional mission. Thus, many state-owned FIs are offering CDAs in order to fulfill their mandate, while simultaneously seeking increased share of the unbanked market. In this sense, such institutions offer CDAs to meet a blend of social and financial objectives.

4.1.4. Commercial financial institutions

There are at least a few commercial financial institutions that consider their financial inclusion efforts (including offering CDAs to poor and/or vulnerable children) as their corporate social responsibility (CSR). At the same time, promoting a habit of savings can be good business for banks, as it can translate into a stream of regular deposits and a long-term relationship with clients. Some commercial FIs see offering CDAs as a way to cultivate “life-long” customers that will be loyal to their businesses, as they grow older. In some cases, FIs build financial literacy training or experience-building into the product offering for such a reason.

4.2. CDA features

Institutions design CDA products and programs so that they are aligned with their respective strategies and missions. Institutions can select from a variety of features: from low-cost to high-cost; and from those that offer child accountholders modest help, to those that offer them significant help. CDA features include: low minimum initial deposit requirements; modest in-kind and financial incentives; significant financial incentives; withdrawal restrictions; and the ability of children to control accounts. Indeed, an institution may incorporate a number of these features (as well as others) into the CDAs that they offer. Needless to say, this list of features is illustrative, not exhaustive, as there is ample room to vary and innovate in the design of such products. Some possible features of CDAs and their potentials to contribute to the economic and/or social development of children are explored below.

4.2.1. Low minimum initial deposit

A low minimum initial deposit is among the most common feature of CDAs surveyed in this study. This feature makes it easier for a child or their parents to open a CDA. Although this feature may not directly result in improved child well-being, CDAs that have low minimum initial deposit have the potential to provide a greater number of children and their families a secure and guaranteed place for their savings. This feature makes CDAs affordable and may encourage families, especially those who have irregular and low income, to opt to use bank accounts rather than informal and insecure forms of saving. Compared to saving informally, CDAs can ensure that their accumulated savings will be available when contingencies arise. These accumulated savings greatly influence, among other things, the probability of child health care use (Thind, 2004) and the timing and quality of health care sought (Deressa, Ali. and Berhane, 2007). Accordingly, better health care advances children's development and influences their adult health and economic status (Case, Fertig and Paxson, 2005).

Minimum initial deposits are a feature of CDAs offered by government-run savings banks, MFIs, and commercial banks. They range from US$0.50 at Rural Bank of Cantilan in the Philippines (Moore, 2005), to US$0.60 at Commercial Micro Finance Bank in Uganda (Kajoba, 2007), to US$4 at Akiba Commercial Bank in Tanzania (Akiba Commercial Bank Limited, 2008). CIMB Bank of Malaysia requires US$16 to open a CDA, versus an initial deposit of US $317 for a regular account (CIMB Bank, 2008). Other examples of low minimum initial deposits for CDAs include 100 Sri Lankan rupees (US $0.93) at Seylan Bank of Sri Lanka, and five Sri Lankan rupees (US $0.05) at National Savings Bank also of Sri Lanka (Seylan Bank, 2008; National Savings Bank, 2008). [9]

4.2.2. Modest in-kind and financial incentives

Modest in-kind and financial incentives are incentives used by institutions to encourage families to open accounts for their children, build their balances, and support a disciplined approach to savings. In Indonesia, for example, modest financial incentives increase the likelihood of opening a bank savings account (Cole, Sampson and Zia, 2009). Modest incentives may also improve a child well-being by providing supplementary educational materials to children and increasing the value of a family's financial assets. Yet, perhaps a more important benefit of modest financial incentives is the potential to increase savings by motivating children, family members and relatives to save more.

Examples of in-kind incentives include: prizes, such as mugs and school bags, when an account balance reaches certain levels; entry

[8] A study on mobilizing savings among the urban poor in Pakistan found that participants “do not have a great deal of knowledge about banks and the services they offer, and see their own limited education as a barrier to understanding and using banks” (Burki and Mohammed, 2008). The study adds, “Banks are seen by the urban poor to be intimidating” (Burki and Mohammed, 2008).

[9] There is a minimum opening deposit of five Sri Lankan rupees for National Savings Bank's “Hapan” and “Punchi Hapan” accounts for minors (National Savings Bank, 2008).

into a raffle draw with prizes such as trips to amusement parks; and the gift of a piggy bank upon opening an account. Rural Bank of Cantilan in the Philippines awards locked "kiddie savers" piggy bank and school supplies to CDA accountholders (Moore, 2005). Institutions that are members of Sistema Fedecredito, a financial intermediary in El Salvador, provide offer discounts at bookstores and amusement parks to CDA accountholders (WSBI, personal correspondence, November 23, 2007).

Modest financial incentives can include higher interest rates compared with other savings products at the institution or in the market. They can also include bonus interest for periods during which accountholders do not withdraw funds. For example, Barclays Bank in Uganda offers their CDA accountholders double the usual interest award for those who make no withdrawal during a quarter (Barclays Bank, personal correspondence, December 18, 2007). BancoEstado, a public bank in Chile, offers a 10% bonus on the amount of interest earned in a year if no withdrawals are made "in the period" (WSBI, personal correspondence, December 3, 2007). Other FIs that offer premium interest rates on their CDAs include Mongolia's Khan Bank and XacBank, Tanzania's Akiba Commercial Bank, and Nigeria's Sterling Bank. Meanwhile, Maybank in the Philippines gives free personal accident insurance for the child, parents/guardians, or designated co-insured party (Maybank, 2008).

Another type of modest financial incentive offered by institutions to attract higher amounts of savings is a lottery with "monthly deadline." This incentive works whereby an FI awards lottery tickets each month to children that save more than a minimum amount. The monthly deadline encourages a child to save regularly instead of postponing saving (Ashraf et al., 2003). Cooperatives in Bolivia (Coop. de Ahorro y Credito Quillacollo, Coop. de Ahorro y Credito Abierta Trinidad), El Salvador (ACOPUS), Guatemala (Coop. de Ahorro y Credito Chorotega), Nicaragua (CACs Central Dinamica, Integral and Professional), and the Philippines (Panabo Multi-Purpose Cooperative) offer such an incentive (Ashraf et al., 2003).

4.2.3. Significant financial incentives

Significant financial incentives, similar to modest financial incentives, directly increase financial resources. Yet significant financial incentives offered by CDAs create a substantial source of additional financial capital that may not be provided by modest incentives. As mentioned above, financial incentives can increase savings by providing rewards that motivate children, family members and relatives to save more. There is some evidence that significant financial incentives increase participation in saving programs, and even more evidence that these type of incentives, specifically matches, increase contributions (Moore et al., 2001; Duflo, Gale, Liebman, Orszag and Saez, 2005; Sherraden et al., 2005). Increased contribution equals more savings that may be used to further enhance child development, from regular health service use to regular school attendance. In short, significant financial incentives have the potential to influence children's development, albeit indirectly, since these incentives increase the amount of savings, which then allows family to afford better health care, education and nutrition for their children.

There are examples of CDAs from both governments and non-governmental institutions that offer accountholders significant financial incentives. In Senegal, for example, the "Sponsor a Child Project" of the National Agency for Little Children's Homes enlists sponsors (called "godfathers" or "godmothers") to make deposits on behalf of children. Under the government program, sponsors deposit 5000 CFA (US$10.06) francs into a savings account upon a child's birth. The consorters subsequently deposit 2500 CFA francs (US$5.03) per month for six years. Once the child accountholders begin primary school, they are allowed to withdraw 30,000 CFA francs (US$60.35) each year to support their education (Agence Nationale de la Case desTout-Petits, 2007). In South Africa, the Association of Collective Investments, a private industry group, operates a CDA pilot program called Fundisa aimed at helping poor children save for higher education. The program offers bonuses of up to 25% of the money put into the investment accounts each year, with a cap of 600 rand (US $66.34) in bonus money.[10] The Fundisa program requires that at least 40 rand (US$4.42) be deposited into the accounts each month. Money deposited into the accounts is invested in government bonds and bank deposits (Fundisa , 2009).

At the same time, some non-governmental institutions–including pilot research programs and NGOs–have the financial means to offer children account holders significant incentives for making deposits. For example, SEED/SUUBI, a matched savings experiment in Uganda, incorporates an example of a CDA that aims to help children enter adulthood with a stock of financial assets. Under the SEED/SUUBI program, children receive a 2:1 "match" on deposits, with a "match cap" of the equivalent of $10 a month per family. The program restricts use of the matched savings to specified purposes are post-primary education and micro-enterprise development. Children can withdraw their personal savings (but not the matching funds) from their account at any time, in case of emergency. (Ssewamala and Ismayilova, 2008). Meanwhile, World Vision Ethiopia, part of the Christian humanitarian non-profit World Vision International, expects to launch a savings program for vulnerable children in Ethiopia. The organization's program plans to open savings accounts for participating children at an MFI and make yearly deposits into the accounts. The program plans to automatically transfer the equivalent of about US$15 each year into each child's account. A premise of the program is if you grant money to young people over a number of years, they will treat it better and be a better steward than if the money is given to them in one lump sum. An advantage of the program, according to a World Vision International official, is that since the funds are deposited at a local MFI, they remain in the targeted communities. (World Vision International, personal correspondence, November 30, 2007; June 27, 2008).

4.2.4. Withdrawal restrictions

When coupled with financial incentives, withdrawal limitations reward children for taking a disciplined approach to savings. Although withdrawal restrictions may not directly influence a child's development, this feature can mediate development by ensuring that savings will be available when desired contingency occurs. Most CDAs allow withdrawals to fund only expenses that are deemed beneficial to a child or his/her family. Withdrawal restrictions guarantee that there will be money available to pay for health or educational expenses. Alternatively, restrictions discourage family members against spending savings on expenditures that may be harmful or will not benefit the children or the family. Additionally, there is some evidence that a commitment savings product, which includes withdrawal restrictions, increases savings (Ashraf, Karlan and Yin, 2006). Higher savings translates to increased financial resources that may allow families to seek health care more promptly and/or send their children to school more regularly.

There are examples of governmental and non-governmental institutions in the developing world offering CDAs that restrict withdrawals. *Jovenes con Oportunidades* (Youth with Opportunities), the youth savings component of Oportunidades, the Mexican government's principal anti-poverty program, restricts the withdrawal of funds from savings accounts until young accountholders graduate from *Educacion Media Superior* (roughly equivalent to high school in the United States).[11] This typically occurs at age 18. *Jovenes*

[10] The South African Department of Education is one of the sponsors of the bonus pool, along with several investment companies.

[11] Oportunidades, which covers millions of the country's rural residents, is a conditional cash transfer (CCT) program. This type of social assistance program provides cash to participants on the condition that they perform an action deemed beneficial to themselves and society.

con Oportunidades, launched by the Mexican government in 2003, opens savings accounts for children of poor families that already receive Oportunidades support in the child's final year of *Secondaria* (roughly equivalent to middle school in the United States). The program is intended to incentivize continued education. Under the program, "points" are deposited into accounts for each year the student successfully completes of *Educacion Media Superior*. Upon graduation, young people are allowed to convert the points into money, which is then available for withdrawal (Oportunidades, 2008).

State-run banks, credit unions, and commercial banks also offer accounts that have withdrawal timing/usage restrictions. These are typically referred to as commitment savings plans.[12] Khan Bank in Mongolia restricts withdrawals of its "Children's Future Deposit" account before age 18 (while at the same time offering holders of this account "the highest deposit rate announced in that particular year") (Khan Bank, 2008). Zoos Bank of Mongolia also restricts withdrawals of its children's "long-term" deposit accounts until account holders turn 18 years old. (Zoos Bank, 2008). SANASA of Aluthgama City, a primary society in Sri Lanka, has a more stringent restriction.[13] The primary society only allows withdrawals before age 18 from the institution's CDAs if children encounter bad health or if money is used to fund education (WOCCU, personal correspondence, November 16, 2007).

4.2.5. Child control of accounts

The ability of children to control their savings accounts (without a co-signer) can empower children and may give them a stronger sense of personal identity.[14] It can also protect their account against misuse of the funds by family members or guardians.[15] Aside from greater autonomy and stronger sense of identity, this CDA feature has the potential to contribute to children's educational development, specifically college expectation. There is some evidence in the U.S. that when financing of education, specifically college, is perceived to be under the child's control, college attendance becomes a more plausible reality (Elliott, 2009). Children with accounts are not only more likely to attend college but they also perform better in school (Elliott, 2009).

The ability of a child to control his/her account can be seen in CDAs offered by at least a few types of institutions in the developing world. A prominent feature of CDAs offered as part of the SEED/SUUBI research project in Uganda is that they are held in the name of the children (Ssewamala and Ismayilova, 2008). BancoEstado in Chile allows girls to manage savings accounts at age 12 and boys to manage savings accounts at age 14 The differing ages are a factor of the bank's definition of "pubescent minors" (WSBI, personal correspondence, December 3, 2007). ServiRed, a network of credit unions in Bolivia, has member institutions that prohibit parents from withdrawing savings from CDAs without the child's consent (WOCCU, personal correspondence, November 30, 2007).

4.3. CDA delivery mechanisms

The standard delivery channel of CDAs is through brick-and-mortar bank branches. This channel has the benefit to the institution of not requiring an additional outlay of funds to conduct outreach to children. Instead, these channels can serve CDA accountholders alongside their other customers. Yet, institutions have made strides in expanding their reach through experimenting with alternative delivery channels. Alternative delivery mechanisms can benefit children by making it easier for parents to open accounts for their children, and enabling children to make regular deposits at locations more convenient to them than fixed branches.[16] In short, delivery innovations can help CDA accountholders overcome a key barrier to savings: lack of physical access to bank branches.[17] Delivery mechanisms (besides bank branches) include operating deposit centers at schools, and remote deposit collection. These delivery innovations and their potentials to contribute to children's development are explored below.

4.3.1. Operating deposit centers at schools

Institutions can operate fixed deposit centers at schools where students can deposit money before classes, at lunch, or at other times. In many parts of the developing world, there are more schools than banks. Deposit centers at public schools offer institutions a great way to reach as many children and their families. Additionally, operating deposit centers at government schools can increase the likelihood that institutions reach children from families of diverse income levels (as opposed to those primarily from middle-class or well-off families).

At the same time, deposit centers at public schools may have the potential to contribute directly to a child's educational development through the "learning by doing" experiences. Similar to school-based savings program in the United States, schools and FIs can integrate savings and other banking activities into the academic curriculum. Experiential learning in savings and banking may improve students' knowledge of math and civic education, and develop their analytical skills. One noteworthy implication of this delivery innovation is its potential positive impact on the academic performance of poorer children, who overwhelmingly attends government schools. Additionally, deposit center activities that are integrated in the academic curriculum may help narrow the educational achievement gap, in many developing countries, between poor children in public schools and wealthier children in private schools.

Deposit centers at public schools may also have the potential to contribute indirectly to a child's development by narrowing the disparity in access to CDAs between wealthier children in private schools and their less affluent peers in government schools. These deposit centers offer children attending public schools and their families a formal way to save, instead of saving in a jar or under the mattress. They also allow students to make regular deposits in a convenient, less-costly way. Many of them only have access to CDAs through deposit centers in their schools. They provide young students a protected place for their savings, which will be available when they need money to pay for school or their other needs. In short, deposit

[12] For a review of commitment savings products in developing countries, see Ashraf et al., 2003.

[13] A primary society is roughly equivalent to a credit union.

[14] In many countries, it is standard practice for banks to allow individuals to control their own accounts only after they reach the age of majority, often 18 years old.

[15] A study done by the India HIV/AIDS Alliance explored possible consequences of lack of access to savings accounts on orphaned street children. According to the study, orphaned street children may end up spending any excess money they earn from odd jobs on harmful items such as alcohol and drugs, because they don't have access to banking services. In India, banking practices allow minors (those under 18 years old) to open joint bank accounts with their guardians, according to the study. As such, children have no access to banking services without guardians (a situation common among orphans). Thus, the study goes on to recommend that banks alter their rules in order to permit minors to open deposit accounts without a guardian as joint accountholder (India HIV/AIDS, 2007).

[16] Adopting certain alternative delivery mechanisms can be expensive, Yet, at the same time, banking via mobile phone and via "point-of-sale" (POS) terminals at retailers are examples of delivery mechanisms that have the potential to reduce (potentially drastically) the cost of delivering financial services. For an overview of branchless banking see Ivatury and Mas, 2008.

[17] The field of behavioral economics can help explain the potential effectiveness of institutions making it easy for individuals to open an account. Behavioral economics draws insights from economics and psychology, can be thought of as the study of how people make choices. They generally operates with the premise that individuals don't always make rational choices, and thus are potentially responsive to prompts that help them overcome barriers to making choices that in theory benefit them. For an overview of behavioral economics see Lambert, 2006. For a discussion of several "innovations" that stimulate savings and help people overcome barriers to savings see Tufano and Schneider, 2008).

centers may act as mediators between guaranteed financial resources, in the form of savings, and children's educational progress, among other things. Alternatively, absence of deposit centers may leave students without access to CDAs; lack of option to save formally; and no savings to pay for expenses that are essential to their development.

Both state-run banks and commercial FIs operate deposit centers in schools in the developing world. Thailand's Government Savings Bank operates a school-based banking program, where banking centers in schools are operated by students who receive training in bookkeeping from bank employees, and supported by teachers and bank staff. The bank's school-based banking centers offer both deposit and withdrawal services. Students deposit money with the school bank; the school, in turn, opens one account with the bank (Government Savings Bank, 2007;2008). As of December 2007, Government Savings Bank of Thailand operated 216 school banks (Government Savings Bank, 2007;2008). Another example of a program offering banking in schools is Sanchayika, the school savings bank program of the National Savings Institute of India (World Savings Banks Institute, 2007a). Meanwhile, Hatton National Bank of Sri Lanka operates 150 school banking units (The Microfinance Gateway, 2008).

4.3.2. Remote deposit collection

Under this outreach, officials from FIs use motorbikes, motor vehicles, and other modes of transport to periodically visit schools and other designated deposit centers in the community to collect deposits. Although mobile bankers may not directly result to an improved child well-being, employing them has the potential to reach a greater number of children and their families whom otherwise would not have access to savings accounts or difficulty making regular deposits. Another way mobile bankers may impact child development indirectly is through lowering costs for saving and allowing children and their families to make regular deposits. This can be the case because accountholders do not need to use time and pay transportation costs to visit bank branches. Lower saving costs may allow families to allocate the extra resources, which would have been used to pay for bank visits, to other expenditures that may improve their children's well-being, or to increase their savings. In the Philippines, for example, deposit collection services have been shown to increase savings (Ashraf, Karlan and Yin, 2005). The savings increase can be linked to the regular visits by deposit collectors. These visits may allow accountholders to accumulate higher savings because deposit collectors act as a daily reminder and pressure to save (Ashraf et al., 2003).

There are examples of MFIs, credit cooperatives, and commercial banks that employ remote deposit collection. PNG Microfinance of Papua New Guinea sends employees from its branches into schools in the vicinity of the branches to collect deposits (PNG Microfinance, personal correspondence, November 20, 2007). ANZ of Australia sends out a vehicle to travel on a set route around Samoa's most-populous island, Upolu, four days a week visiting different schools and also serving the school communities (ANZ, personal correspondence, December 7, 2007). Also, at least a few cooperatives employ deposit collectors to collect deposits from clients, including children.[18] These cooperatives include: Iaguei Credit Union in Nicaragua, Panabo Multi-Purpose Cooperative in the Philippines, and SANASA Thrift and Credit Cooperative Societies in Sri Lanka (Ashraf et al., 2003).

5. Discussion: Implications of CDAs in developing countries

The previous section presented an overview of some features and delivery mechanisms of CDAs in developing countries. Clearly, the CDA experience in the developing world is varied and distinct from the traditional CDA policy experience in developed countries. This final section considers a few implications of this analysis for social policymakers and researchers.

5.1. Data on the reach of CDAs

CDA products can be designed to reach large populations. While data are limited, the extent of CDA uptake at least a few institutions in the developing world illustrates that CDAs have the potential to be offered and adopted on a wider scale. Numerous institutions, particularly financial institutions, have proven quite creative at designing and delivering CDAs that effectively reach large populations of children, most of them poor and/or unbanked. At Thailand's Government Savings Bank, the number of school-based banks reached 169 and opened 475,855 accounts as of August 2006. (World Savings Bank Institute, 2007b). To date, Bank Simpanan Nasional has 1566 schools under its “Adoptive School Program” and 30,000 members in the Young Savers Club (World Savings Banks Institute, 2007b). PostBank Uganda's Early Start Savings Program, which initially started with schoolchildren from Kampala, has expanded, with just one year of operations, to 25 schools served by five of its branches (World Savings Bank Institute, 2007b). The “Future Millionaire” savings account of Mongolia's XacBank reaches more than 62,000 children, representing 22% of the bank's total deposits and 34% of the bank's accountholders as of the end of 2007 (XacBank, 2008).[19] By offering accounts at schools and hospitals, Hatton National Bank, 2009 in Sri Lanka recently held more than 400,000 CDAs, with a balance of over US$35 million as of June 2007 (The Microfinance Gateway, 2008).[20] BancoEstado in Chile holds over 750,000 CDAs, accounting for over 15% of the country's population of children (WSBI, personal correspondence, December 3, 2007).

5.2. Learning from CDA experience

Policymakers can learn from current CDA experiences in the developing world. In developing countries, governments offer the most potential to ensure universal (and potentially progressive) access to CDAs, particularly those with significant financial incentives intended to spur asset accumulation. In South Africa, for example, the Fundisa program is a partnership between the public and private sectors. However, many obstacles prevent the creation of such ambitious policies in developing countries. These include lack of resources (fiscal or human) to create, fund, and manage large-scale social investment programs; lack of widespread access to financial services (making provision of accounts to all children highly problematic); and lack of political will for a relatively expensive yet largely untested social program (which affects the ability to generate political will and budgetary resources).

Nonetheless, our study reveals that diverse institutions have proven capable of successfully offering creatively-designed and targeted CDAs to children throughout developing countries. These experiences with successful CDA products and programs have the potential to (a) serve as a platform for more comprehensive CDA policies and (b) provide lessons to policymakers about design options for CDAs that are lower-cost and higher-impact. Indeed, the growing interest of developing country policymakers in social investment programs, and the commitment of these countries to expanding access

[18] Deposit collectors are generally bank employees or contract workers that go door-to-door collecting deposits from individuals. This allows clients to make relatively frequent, small deposits. For more information about deposit collectors, see Ashraf et al., 2003.

[19] Future Millionaire accounts restrict withdrawals until age 18 and require a minimum balance of 3000 Mongolian Turgiks (US$2.63) (XacBank (n.d.) Annual Report, 2007).

[20] For the sake of comparison, as of June 2007, Hatton National Bank, 2009 had a total of US$591 million in all regular savings accounts (The Microfinance Gateway, 2008a).

to financial services for the poor may help lay the groundwork for the introduction of CDA pilot programs, and ultimately, CDA policies in the developing world context. For example, social investment programs such as conditional cash transfer (CCT) programs, are proliferating around the world. More than 40 countries, developed and developing, have now implemented or are testing CCT programs. These programs, which provide a cash transfer to beneficiaries on the condition that they fulfill certain obligations, could easily be linked with CDAs. While there is only one case of a CCT–CDA linkage to date (the "Jovenes Con Oportunidades" program of Oportunidades), there is increasing interest in link CCTs with saving products. At the same time, there is increasing evidence that more and more governments are taking a more active role in ensuring universal, effective access to financial services in their countries. Over 30 countries, most of them in Africa, have produced National Microfinance Strategies (Duflos and Glisovic-Mezieres, 2008). In addition, a number of countries, such as India, Kenya, Pakistan, and South Africa, have gone as far as to develop country-wide financial inclusion strategies that either promote or mandate broad-based financial inclusion.

6. Conclusion

There are reasons to believe that more governmental and non-governmental institutions in the developing world will begin offering CDAs. First, policymakers and development practitioners have placed increasing attention in recent years on meeting the demand for financial services, including savings services, from those of modest means in the developing world. Second, the proliferation of MFIs over the past several years; the resurgence of proximity banks; and the growing interest of researchers in finding ways to prioritize and increase access to savings products for the poor also illustrate this trend. Finally, advances in technology, especially related to banking through mobile phones and through "point-of-sale" (POS) terminals in retailers (such as pharmacies), offer a particularly promising way to reduce costs to institutions of offering savings services, and thus increase provision of these services.

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Appendix A. Comparison chart of CDA features

Table A1
Africa.

Name of program or product	Fundisa[a]	SEED/SUUBI project[b]	Early Start Savings Account (PostBank Uganda Limited)[c,d]	Zawadi Account (Akiba Commercial Bank Limited, 2009)[e]
Location	South Africa	Rakai District, Uganda	Uganda	Tanzania
Type of institution	National government[f]	Non-governmental institution (academic organizations)	State-owned financial institution	Commercial financial institution
Objective	To save for children's college or university education.	To promote economic empowerment among families caring for orphaned and vulnerable children.[g]	To instill saving culture among children and encourage parents to save for a rainy day.	To instill saving culture among children and encourage parents to save for their education.
Type of enrollment (automatic or facilitated)	Facilitated[h] • Parents open Fundisa accounts in participating financial institutions.	Automatic • CDAs are automatically opened for children in the experimental group.	Facilitated • Parents or guardian can open an account on behalf of their children.	Facilitated • Parents or guardian can open an account on behalf of their children.
Target population	Low-income children and families	Orphaned and vulnerable children and their caretakers	Children 18 years old and below	Children 18 years old and below
Attempts at universal or widespread coverage	Yes, any South African citizen or permanent resident can open a Fundisa account, as long as the beneficiary is South African.	Pilot project. Total of 386 children were involved in the SEED/SUUBI study.	Yes, the program started initially with schoolchildren from Kampala. After one year of operations, the bank serves 25 schools through 5 of its branches.	Yes, the bank offers the *Zawadi* account in all of its branches all over the country.
Incentives used	Financial incentive of up to 25% of the money saved each year.	Matching incentive of up to US $10 a month per family. Match rate is 2:1.	Gifts	Not available
Other key features	• Low minimum monthly deposit (40 rand or US$4). • Only the first 2400 rand (US$268) qualify for the bonus.	• Matching funds are kept in a separate account. • Restricted use of the matched saving, i.e. for education or small business.	• The account is free of charge. • Low initial deposit requirement	•Higher savings interest rate than normal savings accounts.

[a] Fundisa (2009). Retrieved March 11, 2009, from http://www.fundisa.org.za/.
[b] Ssewamala and Ismayilova (2008). Faith-based institutions as project implementers: An innovative economic empowerment intervention for care and support of AIDS-orphaned and vulnerable children in rural Uganda. In P. Joshi, S. Hawkins, & J. Novey (Eds.), Innovations in Effective Compassion: Compendium of Research Papers for the White House FBO Conference (pp. 213–235). Washington, DC: US Department of Health and Human Services.
[c] Post Bank Uganda (2009). Retrieved April 16, 2009, from http://www.enteruganda.com/brochures/postbankuganda.htm.
[d] World Savings Banks Institute (2007b, September). Examples of WSBI members' initiatives in the field of financial education. Brussels: WSBI.
[e] Akiba Commercial Bank Limited (2009). Savings products. Retrieved April 16, 2009, from http://www.acbtz.com/services/savings.html.
[f] Partnership between the Department of Education and the private sector.
[g] Specifically, the intervention promotes children's savings accounts, also known as Children's Development Accounts (CDAs), specifically for post-primary education for orphaned and vulnerable children and micro-enterprise development (e.g., small income-generating businesses) for families caring for these children in Uganda (Ssewamala and Ismayilova, 2008).
[h] Fundisa accounts can be opened in any participating branches of Absa Bank, NedBank or Standard Bank.

Table A2
Asia and the Pacific.

Program name	Butterflies/Children's Development Bank (CDB)[a]	Student Saver's Club (Cantilan Bank)[b]	Government Savings Bank[c]	Singithi Kirikatiyo (Hatton National Bank, 2009)[d]
Location	South Asia	Surigao del Sur, Philippines	Thailand	Sri Lanka
Type of institution	Non-governmental institution (NGO)	Non-governmental institution (rural bank)	State-owned financial institution	Commercial bank
Objective	To equip street and working children to access education and health care.[e]	To teach local children about the value of savings, and to court "savers for life"—potentially high-value future clients.	To promote savings habits among children.	To inculcate savings habits among children and offer parents opportunity to save for their kids.
Type of enrollment (automatic or facilitated)	Facilitated • Although any child can save money with the bank, the child has to approach any CDB locations to open an account.	Facilitated • An account coordinator from the bank travels from classroom to classroom to open accounts.	Facilitated • Students make an initial deposit to open a savings account.	Mixed[f] • Parents of newborn babies will be a given a "Singithi Kirikatiyo" voucher at the birth of the child.
Target population	Street and working children from age 9 to 18.	Children from rural areas, age 7–16 years.	Schoolchildren	Babies born in hospitals
Attempts at universal or widespread coverage	Yes, CDB now offers these accounts in several Indian cities as well as in Afghanistan, Bangladesh and Nepal.	Yes, attempt to cover public and private schools within the bank's coverage area.	Currently, there are 169 school-based banks all over Thailand and more than 475,000 accounts opened. The saving accounts are offered school-wide.	Yes, the bank plans to offer the savings product island wide and include all key hospitals and nurseries.
Incentives used	None	Gifts (mainly school supplies) and free swimming clinics	Scholarships, school materials and study tours.	Gifts and match initial deposit. (When parents make an initial deposit of 1000 rupee, the bank matches the initial deposit.)
Other key features	• Children manage the bank and their accounts. • An interest of 50% is provided for savers who do not withdraw savings for six months.	• Low initial deposit (50 cents).	• The program is a school-based banking scheme that offers savings deposit service. • The school-based banks are operated by students while the bank provides advisory roles.	• Promote savings from birth. • Higher interest rate (3% above the normal savings interest rate). •Gifts for each birthday (up to age 5).

[a] Children's Development Bank (2009) Children's development bank. Retrieved April 16, 2009, from http://www.childrensdevelopmentbank.org/index.htm.
[b] Moore (2005). Piggy banking for profits (Practice Network Working Paper). Washington, D.C.: USAID.
[c] World Savings Bank Institute (2007b), September). Examples of WSBI members' initiatives in the field of financial education. Brussels: WSBI.
[d] Hatton National Bank (2009) Kids/youth banking. Retrieved April 16, 2009, from http://www.hnb.net/youth_sigithi_kirikatiyo.asp.
[e] Children's Development Bank objectives also include: 1) to organize children for collective action for self empowerment; 2) to provide facilities for skill acquisition and vocational training; 3) to provide skills and support to initiate and manage small businesses; 4) to enhance self esteem and confidence of children and adolescents; and 5) to work in partnership with local government and other organizations concerned with children, civil society, media, financial institutions and local entrepreneurs (Children's Development Bank, 2009).To provide technical assistance to other children's groups in India and abroad to set up their own Children's Development Banks.
[f] The voucher must be used to open an account within a period of 3 months after the birth of the child.

Table A3
Latin America and the Caribbean.

Program name	Oportunidades Savings Component (account are opened with BANSEFI)[a]	*Cuentamiga* (Caja Popular Mexicana)[b]	*Ahorro Niño* (Banco Estado)[c]	*Super Ahorro Programado Infantil* (Santander Banefe)[d]
Location	Mexico	Mexico	Chile	Chile (urban areas)
Type of institution	National government	Non-governmental institution (Credit union)	State-owned financial institution	Commercial financial institution
Objective	To combat poverty	To instill savings habit among children.	To inculcate savings habit among children.	To instill savings habit among children.
Type of enrollment (automatic or facilitated)	Automatic •Beneficiaries receive US$336 in a savings account upon completion of high school (12th grade).	Facilitated • Parents or guardian can open an account on behalf of their children.	Facilitated • Parents or guardian can open an account on behalf of their children.	Facilitated • Parents and/or guardian can open the accounts in any bank location.
Target population	Children from extremely poor households	Children age 18 and younger.	Children age 18 and younger.	Children age 18 and younger.
Attempts at universal or widespread coverage	Yes, the program covers 5 million households.	Yes, *cuentamiga* can be accessed in all 330 branches.	Yes, *ahorro niño* is available in all branches of Banco Estado.	Yes, the savings product is available in all bank branches in Chile.
Incentives used	None	None	None	Free ATM card specifically designed for younger clients.
Other key features	• Part of a larger cash transfer program • Withdrawal restriction	• Low initial deposit	• Account is free. • 10% interest if no annual withdrawal. • Child ownership of accounts	• Account is free.

[a] Fiszbein and Schady (2009). Conditional cash transfers: Reducing present and future poverty. Washington, D.C.: World Bank.
[b] Caja Popular Mexicana (2008) *Cuentamiga*. Retrieved January 31, 2008, from http://www.cpm.mx/portal/CPMPortaldeInternet.nsf/CPMPILNFS001?OpenFrameSet.
[c] BancoEstado (2009) *Ahorro niño*. Retrieved April 16, 2009, from http://ahorroninos.w3.cl/ahorroninos/index.htm.
[d] Santander Banefe (2009). *Superahorro programado infantil*. Retrieved April 16, 2009, from http://www.santanderbanefe.cl/contenido/personas/productos/super_ahorro/ahorro_programado_infantil.aspx.

References

Agence Nationale de la Case desTout-Petits (2007). The "Case des Tout-Petits:" An innovative programme for early childhood development in Senegal. Dakar, Senegal: Agence Nationale de la Case des Tout-Petits.

Akiba Commercial Bank Limited. (2009). Savings products. Retrieved April 16, 2009, from http://www.acb-bank.com/services/savings.html

Ashraf, N., Gons, N., Karlan, D., & Yin, W. (2003). *A review of commitment savings products in developing countries.* Economics and Research Department Working Paper No. 45. Manila: Asian Development Bank.

Ashraf, N., Karlan, D., & Yin, W. (2005). *Deposit collectors.* Yale University Economic Growth Center Discussion Paper No. 930. New Haven: CT: Yale University.

Ashraf, N., Karlan, D., & Yin, W. (2006). Tying odysseus to the mast: Evidence from a commitment savings product in the Philippines. *The Quarterly Journal of Economics*, *121*(2), 635−672.

BancoEstado. (n.d.). Ahorro niño. Retrieved April 16, 2009, from http://ahorroninos.w3.cl/ahorroninos/index.htm

Burki, H., & Mohammed, S. (2008). Mobilizing savings from the urban poor in Pakistan: An initial inquiry. ShoreBank International.

Caja Popular Mexicana. (n.d.). Cuentamiga. Retrieved January 31, 2008, from http://www.cpm.mx/portal/CPMPortaldeInternet.nsf/CPMPILNFS001?OpenFrameSet

Case, A., Fertig, A., & Paxson, C. (2005). The lasting impact of childhood health and circumstance. *Journal of Health Economics*, *24*(2), 365−389.

Children's Development Bank. (2009). Children's development bank. Retrieved April 16, 2009, from http://www.childrensdevelopmentbank.org/index.htm

CIMB Bank. (n.d.). Children savings account. Retrieved April 8, 2008, from http://www.cimbbank.com.my/index.php?ch=subch_personal_dps&pg=pg_dps_cs&ac=3&tpt=cimb_bank

Cole, S., Sampson, T., & Zia, B. (2009, March 12–13). *Valuing financial literacy training.* Paper presented at the Conference on Measurement, Promotion, and Impact of Access to Financial Services Washington, D.C.

Deressa, W., Ali., A., & Berhane, Y. (2007). Household and socioeconomic factors associated with childhood febrile illnesses and treatment seeking behavior in an area of epidemic malaria in rural Ethiopia. *Royal Society of Tropical Medicine and Hygiene*, *101*, 939−947.

Duflo, E., Gale, W., Liebman, J., Orszag, P., & Saez, E. (2005). Saving incentives for low- and middle-income families: Evidence from a field experiment with H&R Block. *The Quarterly Journal of Economics*, *121*(4), 1311−1346.

Duflos, E., & Glisovic-Mezieres, J. (2008). *National microfinance strategies.* Washington, D.C.: CGAP.

Elliott, W. (2009, February). Children's college aspirations and expectations: The potential role of children's development accounts (CDAs). *Children and Youth Services Review, 31*(2), 274–283.

Fiszbein, A., & Schady, N. (2009). *Conditional cash transfers: Reducing present and future poverty.* Washington, D.C.: World Bank.

Fundisa (2009). Save for a child's education with Fundisa fund. Retrieved April 11, 2009, from http://www.fundisa.org.za/pebble.asp?relid=39&l=eng

Government Savings Bank (n.d.). School-based banking. Retrieved October 06, 2008, from http://www.gsb.or.th/social/school_en.php

Government Savings Bank (n.d.). 4 December 2007: Opening of the 216th school bank. Retrieved November 3, 2008, from http://www.gsb.or.th/news/detail_en.php?newsid-6524&ModuleKey=news_gsb

Hatton National Bank. (2009). Kids/youth banking. Retrieved April 16, 2009, from http://www.hnb.net/youth_sigithi_kirikatiyo.asp

India HIV/AIDS Alliance (2007). Banking options for children in situations of vulnerability compounded by HIV/AIDS.

International Finance Corporation (n.d.). Corporate Responsibility. Retrieved July 28, 2008, from http://www.ifc.org/ifcext/economics.nsf/content/csr-intropage

Ivatury, G. & Mas, I. (2008) The early experience with branchless banking (Focus Note No. 46). CGAP. Retrieved October 25, 2008, from http://www.cgap.org/p/site/c/template.rc/1.9.2640

Kajoba, N. (2007, July). Commercial micro finance woos children. The New Vision. Retrieved January 31, 2008, from http://www.newvision.co.ug

Khan Bank. (n.d.). Khan bank's deposit products. Retrieved February 5, 2008, from http://www.khanbank.com/service/php?type=1#3

Lambert, C. (2006, March/April). The marketplace of perceptions. : Harvard Magazine.

Loke, V., & Sherraden, M. (2008). *Building assets from birth: A global comparison of child development account policies (CSD Working Paper 08-03).* St. Louis: Washington University, Center for Social Development.

Maybank. (n.d.). Yippie savings account. Retrieved January 31, 2008, from http://www.maybank2u.com.my/philippines/html/yippie.shtml

Meyer, J., Zimmerman, J., & Boshara, R. (2008). *Child savings accounts: Global trends in design and practice (white paper).* Washington, D.C.: New America Foundation.

The Microfinance Gateway (2008). Banking on the future: An interview with Chandula Abeywickrema from Hatton National Bank in Sri Lanka. Retrieved June 4, 2008, from http://www.microfinancegateway.org/resource_centers/savings/practitioners/_bankingfuture

Moore, E. (2005). *Piggy banking for profits (Practice Network Working Paper).* Washington, D.C.: USAID.

Moore, A., Beverly, S., Schreiner, M., Sherraden, M., Lombe, M., Cho, E., et al. (2001). *Saving, IDA programs, and effects of IDAs: A survey of participants (CSD Report).* St. Louis, MO: Washington University, Center for Social Development.

National Savings Bank (2008). Hapan. Retrieved November 1, 2008, from http://www.nsb.lk/PB_Hapan.asp

Oportunidades (n.d.). Proyecto de Reglas de Operacion Programa De Desarrollo Humano Oportunidades Ejercicio Fiscal 2008. Retrieved June, 12, 2008, from http://www.oportunidades.gob.mx/htmls/reglas_2007.html

Post Bank Uganda. (n.d.). Retrieved April 16, 2009, from http://www.enteruganda.com/brochures/postbankuganda.htm

Santander Banefe. (n.d.). Superahorro programado infantil. Retrieved April 16, 2009, from http://www.santanderbanefe.cl/contenido/personas/productos/super_ahorro/ahorro_programado_infantil.aspx

Seylan Bank (n.d.). Seylan Tikiri. Retrieved November 1, 2008, from http://www.eseylan.com/children_account.php

Sherraden, M., McBride, A. M., Johnson, E., Hanson, S., Ssewamala, F., & Shanks, T. (2005). *Saving in low-income households: Evidence from interviews with participants in the American Dream Demonstration (CSD Report 05-02).* St. Louis, MO: Washington University, Center for Social Development.

Ssewamala, F., & Ismayilova, L. (2008). Faith-based institutions as project implementers: An innovative economic empowerment intervention for care and support of AIDS-orphaned and vulnerable children in rural Uganda. In P. Joshi, S. Hawkins, & J. Novey (Eds.), *Innovations in effective compassion: Compendium of research papers for the White House FBO conference* (pp. 213−235). Washington, DC: US Department of Health and Human Services.

Thind, A. (2004). Health service use by children in rural Bihar. *Journal of Tropical Pediatrics*, *50*(3), 137−142.

Tufano, P., & Schneider, D. (2008). Using financial innovation to support savers: From coercion to excitement (Harvard Business School Finance Working Paper). Retrieved June 4, 2008, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1120382

World Savings Banks Institute (2004). The provision of microfinance services by savings banks: Selected experiences from Africa, Asia and Latin America (Perspectives Issue Brief No. 47) Brussels: WSBI.

World Savings Banks Institute (2007a, September). Best of WSBI member trainings onsavings mobilization: Ten years of sharing innovations in the savings market (Perspectives No. 53) Brussels: WSBI.

World Savings Bank Institute (2007b, September). Examples of WSBI members' initiatives in the field of financial education Brussels: WSBI.

Young, R., & Vogel, R. (2005). *State-owned retail banks (SORBs) in rural and microfinance markets: A Framework for considering the constraints and potential (MicroReport).* Accelerated Microfinance Advancement Project.

XacBank. (n.d.). Individual Savings. Retrieved November 1, 2008, from http://www.xacbank.mn/index.php?option=com_content&view=article&id=39&Itemid=11&lang=en&limitstart=5

XacBank (n.d.) Annual Report 2007. Retrieved November 3, 2008, http://www.xacbank.mn/images/stories/corporateinfo/annualreports/xacbank_ar_2 007.pdf

Zoos Bank (n.d.). "Erdmiiin san" children long-term deposit. Retrieved November 3, 2008, from http://www.zoosbank.mn/