

Ashraf, Nava; Gons, Nathalie; Karlan, Dean S.; Yin, Wesley

Working Paper

A Review of Commitment Savings Products in Development Countries

ERD Working Paper Series, No. 45

Provided in Cooperation with:

Asian Development Bank (ADB), Manila

Suggested Citation: Ashraf, Nava; Gons, Nathalie; Karlan, Dean S.; Yin, Wesley (2003) : A Review of Commitment Savings Products in Development Countries, ERD Working Paper Series, No. 45, Asian Development Bank (ADB), Manila,
<https://hdl.handle.net/11540/1969>

This Version is available at:

<https://hdl.handle.net/10419/109253>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<http://creativecommons.org/licenses/by/3.0/igo>

ADB

ERD Working Paper

ECONOMICS AND RESEARCH DEPARTMENT

SERIES

No. 45

A Review of Commitment Savings Products in Developing Countries

Nava Ashraf
Nathalie Gons
Dean S. Karlan
Wesley Yin

July 2003

Asian Development Bank

<http://www.adb.org/Economics>

ERD Working Paper No. 45

A Review of Commitment Savings Products in Developing Countries

NAVA ASHRAF
NATHALIE GONS
DEAN S. KARLAN
WESLEY YIN

July 2003

Nava Ashraf is a Ph.D. candidate in the Department of Economics, Harvard University; Nathalie Gons is from Innovations for Poverty Action; Dean S. Karlan is Assistant Professor of Economics and International Affairs at Princeton University; and Wesley Yin is a Ph.D. candidate in the Department of Economics, Princeton University. The authors thank Vo Van Cuong and Xianbin Yao and others at the Asian Development Bank for useful comments and support, all survey respondents for their cooperation, and the Asian Development Bank for funding under RSC-C20817-PHI. All views and errors are theirs.

Asian Development Bank
P.O. Box 789
0980 Manila
Philippines

©2003 by Asian Development Bank
July 2003
ISSN 1655-5252

The views expressed in this paper
are those of the author(s) and do not
necessarily reflect the views or policies
of the Asian Development Bank.

FOREWORD

The ERD Working Paper Series is a forum for ongoing and recently completed research and policy studies undertaken in the Asian Development Bank or on its behalf. The Series is a quick-disseminating, informal publication meant to stimulate discussion and elicit feedback. Papers published under this Series could subsequently be revised for publication as articles in professional journals or chapters in books.

CONTENTS

Abstract	vii
I. Introduction	1
II. Theories of Saving	2
III. Commitment Savings Product Features	4
A. Deposit-Side Features	4
B. Withdrawal-Side Features	6
IV. Scan of Savings Products: Results from A Micro-Savings Web Survey	9
A. General Description of Respondents	9
B. Growth of Accounts	11
C. Product Design	11
V. Savings Products with Commitment Features: Some Examples	12
A. Pasanaku by FFP F.I.E. in Bolivia	12
B. Women's Savings Account (Cuenta Feminina) by Guayacan Credit Union (Cooperativa de Ahorro y Crédito Guayacán) in Guatemala	13
C. Om Sap Thawisin Savings Card Deposits by Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand	13
D. Passbook Savings, Youth Savings, Term Deposits by SANASA Thrift and Credit Cooperative Societies in Sri Lanka	14
E. Savings and Loan Account by SafeSave in Bangladesh	14
F. Simpedes, Simaskot, Deposito by Bank Rakyat Indonesia (BRI) in Indonesia	14
G. Gold Savings by Jigsaw Development in Thailand	15
H. Savings for Old Age, Children Education, Housing, and Religious Ceremony by Bank Dagang Bali (BDB) in Indonesia	15

I.	Passbook Savings, Fixed Deposits, Savings Certificates, Children's Accounts, Savings Lottery Campaign by Hatton National Bank (HNB), Gami Pubuduwa (village reawakening) Program in Sri Lanka	16
J.	Daily Deposit Plan, Monthly Deposit Plan by Vivekananda Sevakendra O Sishu Uddyon (VSSU) in India	16
K.	Super Savings (Superahorros) by Banefe-Banco Santander in Chile	16
L.	Passbook Savings, Term Deposits, and Children's & Youth Savings Account by Iaguei Credit Union (Cooperativa de Ahorro y Crédito Iaguei) in Nicaragua	17
M.	Individual Development Account by First State Community Loan Fund in Delaware, USA	17
N.	Education Savings Account (Cuenta de Educación) by Bandedesarrollo Microempresas in Chile	18
VI.	Implications for Policymakers and MFIs	18
VII.	Conclusion	19
	Appendix 1: Estimated Growth of Regular Savings Accounts (percent)	20
	Appendix 2: Estimated Growth of Term Deposit Accounts	22
	Appendix 3: Estimated Growth of Programmed Savings Accounts	23
	Appendix 4: Microsavings Web Survey	24
	References	26

ABSTRACT

Many financial institutions in developing countries offer savings products. Yet, little has been done to assess systematically and quantitatively the relative merits of different product designs. This paper first examines different designs that provide incentives to clients to commit to save. Mechanisms are divided into deposit-side mechanisms that help clients make regular deposits, and withdrawal-side mechanisms that help clients restrict the use of their funds except for well-planned uses or emergencies. Then, using results from a short web-based survey of microfinance institutions, we describe different commitment savings products in use around the world.

I. INTRODUCTION

Many financial institutions in developing countries offer savings products. Yet, little has been done to assess systematically and quantitatively the relative merits of different product designs. Savings is critical to households in developing countries. It allows households to smooth consumption in the face of volatile income and supports investments in human and physical capital. Savings mobilization typically is considered low in developing countries, but creating and implementing policies to raise it is difficult. Low savings might be a consequence merely of poor access to safe, flexible, convenient, and affordable savings products. Informal savings, such as rotating savings and credit associations (ROSCAs) and physical goods, such as livestock, are prominent methods of savings in developing countries.

This paper examines the design of formal savings products. Due to self-control or spousal control issues, some individuals need specific mechanisms that help them commit to save. In particular, a clear tension exists regarding liquidity. Many clients demand highly liquid savings products but also want help committing to a savings plan. These desires are often, but not always, at odds with each other. In this paper we discuss how products can be designed to help clients commit to save.

Traditional models of savings, such as the life-cycle hypothesis (Modigliani 1966) and the permanent income hypothesis (Friedman 1954) assume that individuals exponentially discount consumption to determine how much to save for future consumption versus current consumption. More recent theories use “hyperbolic discounting” and “mental accounting” to model this decision (O'Donoghue and Rabin 1999; Laibson 1997; Thaler 1992, 1990; Lowenstein and Thaler 1989). Hyperbolic discounting models suggest that individuals would improve their welfare by seeking mechanisms that commit them to save in the future. Mental accounting theories suggest that individuals often behave as if money is not fungible, and hence savings levels can be affected by mere framing of decisions. Many financial institutions, particularly in developed countries, implicitly or explicitly incorporate these theories into their product designs.

Commitment savings devices are particularly plentiful in developed countries. For instance, pension plans, education savings accounts, medical savings accounts, automatic drafts from checking to investment accounts, and direct debits from paychecks are all forms of commitment savings products (some with tax incentives, others not). Some of these same products can be adapted for poor, underbanked populations in developing countries. In fact, many anecdotes exist in developing countries regarding the creation of such products (see Shipton 1992 and Rutherford et al. 1999). Until recently, aside from many credit unions, most financial institutions in developing countries did not offer appropriate savings options for the poor. Then, some microfinance projects started offering low-cost, accessible savings products that incorporate some form of commitment. Many of these projects report success; hence, it is appropriate to ask what exactly makes these projects work.

The microfinance movement for the past several decades has focused on the credit side of “finance.” Many poor individuals who borrow repeatedly find themselves in a never-ending cycle of debt, typically with extraordinarily high interest rates (Morduch 1999). In response, some projects have started helping clients develop savings so that they no longer need the costly debt in order to manage their households and businesses. Many microfinance and small-scale banking organizations in developing countries are launching savings accounts with a commitment property. Surveys of clients indicate that many desire a savings plan with built-in illiquidity (Wright 1999, Vonderlack and Schreiner 2001, Matin 2002).

Section II of this paper will review the basic theoretical literature on savings, with a focus on explanations from behavioral economics that suggest why commitment features might be successful. Section III will present different ideas and characteristics of savings products that can facilitate the commitment to save by clients. Section IV draws on a Web-based survey and a review of recent literature. Section V will conclude with implications for policymakers and microfinance institutions (MFIs). The principal recommendation is that with proper piloting of savings innovations, much can be learned about the relative merit of different savings product features.

II. THEORIES OF SAVING

Savings fundamentally is about choosing between current and future consumption. Savings theories traditionally predict that current consumption is related not to current income, but to a longer-term estimate of income. The life-cycle hypothesis (Modigliani 1966) predicts that individuals hold their consumption constant over their lifetime; they save during their working years and draw down their savings during retirement. The permanent income hypothesis (Friedman 1954) argues that consumption is proportional to a consumer’s estimate of permanent income.

These theories of savings were developed with industrial economies in mind. Deaton (1989) suggests at least four reasons why these two theories might be of limited use in developing nations. First, households in developing countries are larger than in industrialized countries and are more likely to contain several generations. As a result there is less need to save for retirement or for intergenerational transfers. Second, income in many of these economies is uncertain and cyclical, making estimation of longer-term income flows difficult. Third, individuals are likely to be credit-constrained, so that borrowing in early years will be difficult. Finally, these combined factors suggest that savings in developing economies often plays an important role in buffering between income and consumption. Individuals often save small amounts at frequent intervals to smooth income, rather than accumulate or save for retirement.

Economic theories of intertemporal choice generally assume exponential discounting that implies a constant marginal rate of substitution among future periods. In other words, deciding between consumption in one month versus two months from now should be no different than deciding between consumption in 20 months versus 21 months, all else equal. However, a long literature suggests that many individuals suffer from a time inconsistency problem and do not discount the future exponentially (O’Donahue and Rabin 1999; Laibson 1997; Thaler 1992, 1990; Lowenstein and Thaler 1989). Experimental evidence indicates that many individuals have preferences that reverse as the date of decision making nears. Psychological experiments suggest that preferences are roughly hyperbolic

in shape, implying a high discount rate in the immediate future, and a relatively lower rate over periods that are further away (Ainslie 1992, Lowenstein and Prelec 1992). Commitment mechanisms that bind an individual to future actions or restrict individual choice in the future can overcome these inconsistencies.

How widespread is the problem of commitment? There is evidence that consumers are willing to pay to have their options limited, even in economies like the United States (US) with developed financial markets and low transactions costs. Individuals often choose to save in ways that delay or limit their ability to access funds, what Laibson refers to as the “golden eggs” property of assets (Laibson 1997). Over two thirds of US household assets in 1994 were held in illiquid assets such as pension funds, homes, and life insurance reserves. Many Americans also make use of the tax system to save by overwithholding on taxes to receive a lump sum (but noninterest bearing) refund at tax time (Neumark 1995, Mullainathan and Thaler 2000). Among poor and unbanked households in the US a number of savings commitment strategies have been documented including choosing savings accounts that charge per withdrawal, postponing the cashing of paychecks, giving money to a trusted individual to hold, opening an account at a branch that is inconveniently located, and choosing not to have an ATM card (Beverly et al. 2001). Benartzi and Thaler (2002) show that individuals who participate in an employee savings program that commits them (in a nonbinding way) to commit higher proportions of future earnings to retirement plans do in fact save more.

Behavioral economics also suggests that individuals do not treat the components of their wealth as fungible, as the life-cycle theory implies. Instead, individuals divide their wealth into broad mental accounts—such as current income, current assets, and future assets—with differing marginal propensities of consumption for each account (Shefrin and Thaler 1988). For example, data from Japan show that the marginal propensity to consume out of income from predictable semiannual bonuses is substantially lower than for regular income (Ishikawa and Ueda 1984).

The use of savings commitment technologies or mental accounting heuristics is not limited to developed economies, but there is little systematic, empirical evidence on these effects in developing countries. Gugerty (2001) provides evidence that rotating savings and credit association (ROSCA) participants in Kenya explicitly design their ROSCAs to provide self-control. Shipton (1992) documents the use of lock boxes in the Gambia. Rutherford (1999) also cites several commitment devices that villagers in East Africa use to stick to savings plans, including buying a lock box and throwing away the key and the use of “money guards” in which individuals entrust their savings to someone else so that they cannot spend it. There is evidence that in Latin America and Africa, households use tree crops and tubers as a relatively illiquid store of savings (Godoy, Frank et al. 1996).

The demand for savings commitment devices may also result from intrahousehold or intravillage allocation dilemmas. Some researchers have argued that ROSCAs are popular in developing economies because they provide “spouse control” devices, allowing individuals to hide money from their spouse, or otherwise remove it from the household economy (Anderson and Baland 2002). Vonderlack and Schreiner (2001) suggest that women are in particular need of savings commitment devices. Households in developing countries are also part of a web of informal contracts that include credit, debt, and insurance (Udry 1994, Townsend 1995). If less cash is on hand, or savings are not easily accessed, then an individual is more empowered to turn down requests for withdrawals or loans from family or peers. This limited access, however, might also have the negative effect of reducing informal insurance mechanisms within families or villages.

III. COMMITMENT SAVINGS PRODUCT FEATURES

Many features can turn a normal savings product into a commitment savings product. Many of these features, in fact, can be described in other terms and might work for reasons entirely distinct from their ability to help clients commit to savings. Time deposits, for instance, are a form of commitment savings. However, they typically pay a higher interest rate. Hence, it is not accurate to claim that time deposits are popular merely as a means to commit to save.

For the sake of the analysis, we will discuss deposit-side features and then withdrawal-side features. Deposit-side features work by helping individuals make regular deposits into a savings account. Withdrawal-side features work by deterring withdrawals. Note that a product with a strong withdrawal-side feature might inspire more deposits by an individual self-aware enough to feel that the money will be safer from their future self. On the other hand, a strong withdrawal-side feature might deter deposits if a client fears the money will not be available when needed. A successful product must strike the right balance, ideally designed in such a way as to conform to the client's needs.

A. Deposit-Side Features

(i) Automatic Transfers

Automated transfers from one financial asset to another can facilitate long-term savings. This works because transaction costs are reduced since no action is required for transfers in subsequent months, but also because the status quo itself has tremendous power in influencing savings outcomes (see Madrian and Shea 2001). This is common in the US, where many people automatically transfer a set amount monthly from a checking account into an investment account. Since the transfers typically can be stopped, permanently or temporarily, at any time, this is a good example of a nonbinding commitment device. The mere fact that a nonbinding device still works suggests that the status quo bias is strong. Nonbinding devices have the lure of being reversible in the case of emergencies and hence easier to accept by savers.

(ii) Automatic Reductions from Paychecks

Automatic deductions from paychecks work for reasons similar to automatic transfers. In this case, the money is removed before it even enters a client's account, hence never being within easy access. Typically, one can stop the automatic deduction at any time. In reality, people do not. The transaction cost of stopping the transfer is typically very small, yet the status quo bias dominates, and individuals continue saving without effort. Again, this practice is common in the US, and is even subsidized by the government in many cases via tax-advantaged retirement and medical savings programs. Some countries, such as South Africa, have the financial infrastructure to include this type of policy, although the authors are unaware of this being used for a savings (i.e., noncredit) program.¹

¹ In fact, the credit companies that used this approach for repayment have come under much criticism as many individuals found themselves with little take-home pay after all the deductions were made.

(iii) Deadline for Bonuses

Most people report wanting to save more than they do, but typically are unwilling to save now and instead plan to do it tomorrow. Deadlines are sometimes needed in order to inspire the savings to occur. The threat of losing the benefit must be sincere, and the consequence to missing the deadline must be significant enough to inspire one to make the savings payment.

Many financial institutions around the world implement lotteries to generate higher savings. Sometimes these are structured such that a ticket is awarded for every month in which somebody saves more than a certain minimum. Without the monthly deadline, an individual might prefer to postpone saving in hope of saving more later to make up for the immediate shortfall. The deadline keeps someone saving regularly, and this regularity arguably leads to higher overall savings.

(iv) Automatic Increases

Often individuals readily admit that they want to save more **tomorrow**, not **now**. Shlomo Bernatzi and Richard Thaler developed a plan in the US called the Save More Tomorrow plan (SMarT). This plan can be implemented in developing countries under the right circumstances. SMarT relies heavily on two features: status quo bias and willingness to save when income increases. In short, this program targets individuals who expect a windfall or wage increase in the future, but gets them to commit now to save a certain percentage of that increase. The idea simply is that if one waits until the increase is realized to form a new savings plan, then the immediate urge to consume that increase will dominate and no additional savings will occur.

In a developing country, a similar mechanism can be set into place, particularly for farmers. For instance, a farmer might be willing to commit now to save a certain percentage of income from crop sales. Unless the transaction was prearranged, it will be difficult to get the farmer to save when cash is on hand from the crop sale. By incorporating the commitment to save with the payment, even if the commitment is nonbinding, one should find that savings increases. Such a structure could be arranged with cooperatives where the crop sales are centrally organized.

Even better, if a program worked with farmers to help them adopt more profitable agricultural technology or crops, a SMarT plan could be implemented simultaneously to help the farmers save some of the additional income generated from the improved technology. Such an approach has been tried on a pilot basis with success by a nongovernment organization (NGO), International Christian Supportfund, in coordination with two economists, Esther Duflo and Michael Kremer (see Duflo 2003). The exact design of such an integrated agricultural and savings program requires further work, particularly in developing a methodology for bringing such an intervention to scale.

(v) Deposit Collectors

Deposit collectors are a costly but effective approach to helping individuals make frequent small deposits. In informal settings, using a deposit collector typically implies a negative return on savings (see Rutherford 2000). One might argue that deposit collectors work because they reduce transaction costs for savings. That is not quite right. Deposit collectors are cheaper for the client (all else equal) than going daily to the bank, but they are not cheaper than saving at home. As long as individuals

have the option of savings in their pocket or jar at home, a deposit collector does not in fact lower transaction costs (except for perhaps the monthly visit to the bank).

However, individuals do not save successfully in their pocket or a jar. The reason the deposit collector works is because it is a daily reminder and pressure to save. There is almost a moral imperative to deposit with a deposit collector, since he or she is there to collect the money on the individual's behalf. Hence, signing up with a deposit collector program is indeed making a commitment, albeit nonbinding, to save in the future. The flexible aspect of the deposit is perfect, since in the case of an emergency an individual does not have to make the deposit. However, the status quo and the habit of regular deposits in fact helps individuals save more than they would using their own pocket.

B. Withdrawal-Side Features

(i) Restricted Use (or Targeted Savings)

Perhaps the most common and straightforward commitment savings feature is the restriction on the use of funds. This is done in both developed and developing countries. Typically ties include education, health care, and old age. Fungibility of money suggests that such accounts should have no effect on savings decisions (assuming no interest rate difference). However, mental accounting principles suggest that indeed money saved for a particular purpose is likely to be spent on that purpose and hence will affect savings and consumption decisions. To the extent that individuals want to save for particular purposes but have difficulty doing so with their normal savings account, a specially labeled account for that purpose in fact has the necessary influence to inspire increased savings toward that purpose.

The method of tying savings to a particular use can take on many forms, both weak and strong. Mental accounting principles suggest that perhaps moral suasion alone might generate the desired effect. Some targeted savings programs in fact have little enforcement of the direct use of funds, whereas other programs monitor the use directly by only releasing money to the intended vendor (e.g., to the school for tuition, to the doctor for medical fees). The right balance for the extent of monitoring clearly depends on the cost of verification.

Many targeted savings programs pay a reward, through either a higher interest rate or even a matching. Some of this is compensation for the illiquidity of the savings, since these products tend to be for longer terms, such as time deposits. In many cases, however, the higher return comes from a state subsidy; hence the price effect is difficult to disentangle from the commitment feature of the savings. For instance, in the US, the federal government subsidizes savings for old age with pensions and individual retirement accounts, for education with Coverdell savings accounts, and for health care with medical savings accounts.

(ii) Restricted Timing of Withdrawal

Time deposits are the classic example of a commitment to save for a specified period of time. Because clients are compensated explicitly for this illiquidity, it is difficult to argue that clients opt for the illiquidity of the commitment feature itself. Rather, the higher interest rate, conditional on not expecting to need the money for a set period of time, inspires individuals to save in this form rather than a normal savings account. It might be difficult to offer a time deposit that does

not offer additional interest, since a norm exists where time deposits do pay more. This norm would make clients feel that a time deposit without an increased interest rate is not fair.

Another option is to restrict the money not until a particular date, but until a particular amount of money is raised. If the account is properly labeled, it could use mental accounting principles to help individuals associate the account with, for example, a new roof for their home. The authors of this paper are currently working with a rural bank in the Philippines on such a product.

(iii) Lock Box

The lock box functions essentially as a difficult to break piggy bank for which the bank, but not the client, has a key. The lock box mechanism is already in use in many developing countries,² but the effectiveness of these products in mobilizing savings has never been tested in a controlled setting. On a regular basis (the exact frequency depends on vulnerability of the box to theft), a bank worker visits the client's home or place of business, or the box is brought to the bank. The money is removed and deposited into the savings account. This effectively clusters a series of small deposits into a larger one and prevents the client from reneging on the commitment to save since funds are not removable once placed in the box.³ The lock box product also has the advantage for the bank of reducing its transaction costs because it requires fewer tellers, entails less paper work, and generates shorter teller lines.

The lock box works theoretically because it removes small amounts of cash from one's pocket exactly when the cash arrives. By physically removing the money from one's control, on a daily basis, the money is more likely to be saved than spent. Many proactive savings projects reduce transaction costs for clients while simultaneously embedding some form of commitment into the product. This makes disentangling lower transaction costs from commitment difficult. However, in this case, because the counterfactual behavior would be to collect the daily money in a small bag on one's own, this product does not in fact lower transaction costs for the client.⁴ Hence, this product is a good test of hyperbolic discounting. However, family bargaining models make a similar prediction as hyperbolic discounting.

(iv) Withdrawal Fee

A withdrawal fee is an indirect and typically unintended method of creating a commitment product. If an individual has to pay for withdrawals (and ideally not for deposits), then it might be argued that this simply makes the product unattractive to clients, relative to a product without withdrawal fees. However, if a self-aware individual realizes that the withdrawal fee will in fact deter withdrawals, such a person might prefer this product in order to protect him or herself from impulsive withdrawals.

² In the Philippines it is called a "lata box." The authors also have observed farmers in Kenya using such a device that they created themselves.

³ In focus groups conducted in July 2002 in the Philippines, this product was particularly popular. Many clients were concerned about the boxes being easy to break, but agreed that a metal box should solve this problem. Another concern was the security of the box, both to protect from theft and from oneself; some clients wanted large boxes to keep in their house and be difficult to carry, whereas others wanted boxes sufficiently small to hide in their clothing.

⁴ In fact, in existing implementations of the lock box, most clients paid \$1 for the box. Hence, the transaction costs are higher than accumulating the money in one's pocket.

Banks typically charge withdrawal fees and not deposit fees for the obvious reason: to provide incentives to deposit and disincentives to withdraw. Hence, this is not a purposeful commitment device. On the other hand, a withdrawal fee could have the exact opposite impact. If the fee is a flat fee, as it often is, then clients have an incentive to withdraw money less frequently, but in larger amounts. This causes clients to have more cash in their pocket, which earns no interest and is subject to self-control problems (cash in hand gets spent!).

It would be interesting to know if some clients prefer the withdrawal fee specifically for the future deterrence to withdraw. Not all clients, and probably not even a majority of clients, would opt for a withdrawal fee account over a no-withdrawal-fee account, all else equal. Individuals with few, if any, discretionary withdrawals would not like such a feature. Individuals who have many discretionary withdrawals, but who often regret their withdrawals after the fact, might prefer to have the fee in order to deter withdrawals.

(v) Delayed Withdrawals

A delayed withdrawal feature is similar to the theoretical ideas developed in Laibson's golden eggs model (Laibson 1997). Theory suggests that such delay is useful in helping individuals to avoid the temptation to spend funds on purchases they will later regret. Furthermore, knowing this money is safe from future impulse withdrawals, individuals are likely to make more deposits. The delay can be minimal, perhaps as small as two hours. In this case, it is no different than a withdrawal fee where the price is a little time, rather than money. A delay that is too long runs the risk that clients perceive the financial institution as unsound or illiquid, rather than merely acting in the client's best interest.

(vi) Peer Monitoring

Peers can help people commit to savings. Much like social capital and group liability help lenders enforce contracts (Karlan 2003), peers can join savings circles where their fates are bound. Programs such as these are far more common in developing countries than developed countries, both for savings as well as debt. The punishment for failing to save could be financial, or could be merely in terms of reputation since the one failing to fulfill the contract will have disappointed his or her peers in their attempt to save as well.

The social pressure to save works much like a ROSCA does, and evidence suggests that some individuals enter into such arrangements specifically for the commitment aspect. Many NGOs, particularly in South Asia, have started self-help groups that essentially formalize and provide structure to these informal arrangements (see Ashe 2003, Ashe and Parrot 2003, Allen and Grant 2003, Wilson 2003, Zapata 2003, and Matthews and Ali 2003).

Peer monitoring could be classified as both a deposit-side device as well as a withdrawal-side device, since peer pressure is exerted at both points in the contract.

IV. SCAN OF SAVINGS PRODUCTS: RESULTS FROM A MICRO-SAVINGS WEB SURVEY

In January 2003, Princeton and Harvard Universities distributed a *Micro-Savings Web Survey* through microfinance listservers and networks, as well as directly to microfinance institutions that are authorized to mobilize deposits.⁵ Given our focus on savings products that help people to save more, the survey asked for replies only from MFIs offering *voluntary savings services that are not linked to loan access*. In other words, we do not include compulsory savings schemes or those where savings is a prerequisite for accessing credit. Survey responses have yielded basic information of over 130 savings products offered in 25 countries.

A. General Description of Respondents

MFIs that offer voluntary savings services unlinked to loans comprise a minority in the microfinance sector. These MFIs are most commonly financial cooperatives (credit unions) and banks, but also include non-governmental groups (NGOs) and other institutional arrangements such as self-help groups (SHGs). The majority of our survey respondents were financial cooperatives, followed by banks and NGOs. The majority operates in Africa, but is closely followed by MFIs operating in the Americas and Asia (Table 1).

TABLE 1
GEOGRAPHICAL DISTRIBUTION OF MFIs REVIEWED

REGION	NUMBER REPORTING	PERCENT
EasternEurope	1	1
Americas	37	33
Africa	44	39
Asia	31	27
Total ^a	113	100

^a 80/113 correspond to self-reported data from 25 countries, which was collected by the Micro-Savings Web Survey.

In addition to legal barriers (many MFIs are not authorized to mobilize deposits), barriers rooted in institutional culture can also account for the difficulties in adding voluntary savings products to the financial services menu of the micro-“credit” dominated micro-finance industry. The experience of the Association for Social Advancement (ASA) in Bangladesh should serve as a valuable lesson to the microfinance community.

⁵ The survey was posted on the following listservers: Sharenet, PlanetFinance, Devfin, and MicroFinancePractice. Networks that distributed the survey include the World Savings Bank Institute, the Nepal Microfinance Network, and the Zambia Microfinance Network. The survey was distributed to affiliates of international microfinance networks, including the MicroFinance Network, Global Network on Banking Innovations, as well as microfinance institutions listed as deposit mobilizing on databases hosted by CGAP, PlanetFinance, and Cirad Gret. The survey was also distributed to participants that attended microsavings conferences/seminars, including the World Council of Credit Unions’ Savings Best Practices Conference, November 2003.

The Association for Social Advancement (ASA) in Bangladesh entered the MFI industry in 1992 and quickly evolved into a microfinance success story, particularly in its ability to achieve scale in outreach and financial sustainability. Until 1997, ASA's only savings services were limited to the weekly compulsory savings that were only accessible when the client terminated his/her membership. In 1997 and 1998 ASA added three voluntary savings products, all of which have been recently discontinued. The unsuccessful efforts by a successful microcredit institution to introduce voluntary savings services highlight the difficulties of evolving from a compulsory savings regime to a voluntary savings regime (Matin 2002).

The size of MFIs reviewed here varied greatly; the total client outreach ranged from a total of 128 clients to 750,000 clients. Over half are located in all areas (rural, peri-urban, and urban). One third reports an urban focus, followed by approximately one fifth reporting a rural focus.

Of the 80 MFIs reviewed,⁶ approximately 60 percent receive some form of regulation, of which 20 percent are regulated by a formal financial regulator. Of the 80 MFIs reviewed, 60 report that savings comprise one of the principal products, followed by 10 MFIs reporting that savings are important but not as important as other financial products. This focus on savings no doubt should be a result of the selection bias of those who responded to the survey, and hence should not be considered representative of financial institutions as a whole.

Survey results suggest that the most widely used savings products are passbook savings accounts and demand deposit accounts, which is confirmed by much of the literature reviewed here. Time deposits and programmed savings accounts are used on a smaller scale (Table 2).

TABLE 2
TYPES OF SAVINGS PRODUCTS REVIEWED

TYPE	NUMBER
Regular savings	85
Programmed savings	10
Term deposits	21
Group savings	3
Other	3
Not enough information	2
Total	124

⁶ Although a higher number of MFIs replied to the Micro-Savings Web Survey, some could not be included either because they do not mobilize deposits, or they do so as a prerequisite for access to credit.

B. Growth of Accounts

Not surprisingly, growth in passbook savings and demand deposit accounts is marked by a steady increase (see Appendix 1). Products that witnessed an extremely high growth rate are a result of a small number of accounts one year ago. For example, Iaguei Credit Union has a one-year 1,093 percent growth rate in its youth savings accounts, which were first introduced in 1999. In January 2002 (one year from the distribution of the survey) it had approximately 41 youth savings accounts, which increased to 489 in approximately one year.

Term deposit accounts also exhibit positive growth (see Appendix 2). As seen in regular savings accounts, cases of extreme growth are attributed to a small number of accounts of a year ago. For example, Finantel Credit Union had a one-year growth rate of over 1,000 percent for its term deposit accounts. This extremely high growth rate reflects an estimated 25 term deposit accounts held in January 2002, when the product was first introduced. The number of accounts grew to approximately 300 by the end of 2002.

Programmed savings accounts present an ambiguous picture—the few cases showing positive growth are cancelled out by those that show negative growth (see Appendix 3). The descriptions of the Pasanaku and Women's Programmed Savings Accounts suggest that introducing and managing programmed savings accounts is relatively more complex than regular savings accounts and term deposits (Section V, page 15).

The Rwandan *banques populaires* (credit unions) convey a different growth pattern in savings accounts. They have witnessed an overall increase in total volume of savings fueled by an increase in the number of term deposit accounts and housing savings accounts, whereas growth in demand deposit accounts decreased.

C. Product Design

Commitment mechanisms are important features for individuals that aspire to meet their savings goals while resisting the temptations of daily life. The savings products described below illustrate the diversity of commitment mechanisms, which can range from the product's fee structure to the required frequency of deposits.

Of the 124 savings products reviewed by means of the web survey (see Appendix 4), 75 had at least one deposit-side commitment feature,⁷ with a maximum of two features per single product.⁸ Of this group, approximately 40 percent (58 products) had a bonus deadline. The bonus deadline feature refers to lotteries and raffles that are open to deposit account holders. Lotteries and raffles are relatively easy strategies for MFIs to implement and are reported to be popular among clients. They help clients save more by providing incentives (prizes) to save more by a specified time (deadline). The deadline may be linked to accumulating tickets for the lottery, for example one can only increase her chances for winning by making a regular minimum deposit.

⁷ Please see Section III for a list and description of deposit-side commitment features.

⁸ See the full version of Appendix 4: Voluntary Savings Products with Deposit-Side Commitment Features; Appendix 5: Voluntary Savings Products with Withdrawal-Side Commitment Features; and Appendix 6: Savings Products Ranked by Degree of Commitment at <http://www.wws.princeton.edu/~dkarlan/downloads/commitment-savings-product-review.june2003.pdf>.

The second most common deposit-side commitment feature was personalized deposit collection. Approximately 26 percent (35 products) employed deposit collectors. Although this is a costly means for an MFI to collect deposits from its clients, it is very effective because it offers the client convenience and encourages discipline to save consistently.

The least common deposit-side commitment feature was the automatic transfer (1 product). This may reflect a lack of technical know-how and/or infrastructure accessible to MFIs.

Of the 124 savings products reviewed by means of the web survey (see Appendix 4), 20 had at least one type of withdrawal-side commitment feature,⁹ ranging from as little as one feature to as many as three features per product. The most common feature is the withdrawal fee, which is contained by a little less than 30 percent (39 products). Withdrawal fees are commonly employed by MFIs as a means to cover their costs of opening and servicing the account. Withdrawal fees may serve as an effective commitment feature for individuals who have many discretionary expenditures and benefit from deterring withdrawals to resist the temptation of superfluous spending. However, for individuals with few discretionary expenditures and/or if the withdrawal fee is a flat fee, withdrawal fees may serve as an incentive to withdraw money less frequently, but in larger amounts. Thus, contrary to the desired effect of a commitment feature, clients will have more cash in their pocket, which earns no interest and is subject to self-control problems.

Another common withdrawal-side commitment feature is the restricted timing feature, which is found in approximately 20 percent (25 products). These are standard features of term deposits and programmed savings accounts, in which clients agree to save for a specified period of time.

The less common features include restricted use (7 products), lock boxes (5 products), and peer monitoring (3 products). The low occurrence of the “restricted use of deposits” feature is difficult and costly for MFIs to implement monitor. The low occurrence of peer monitoring results from the low number of voluntary group savings programs that replied to our survey.

V. SAVINGS PRODUCTS WITH COMMITMENT FEATURES: SOME EXAMPLES

The information presented here is based on the Harvard/Princeton Microsavings Web Survey (Appendix 4) distributed in January 2003, and on interviews and a literature review.

A. *Pasanaku* by FFP F.I.E. in Bolivia¹⁰

FFP FIE is a private financing fund (fondo financiero privado) that serves 7,262 clients in peri-urban and urban parts of Bolivia. FIE conducted a marketing study that revealed an interest among their clients for a programmed savings account. In 2000 they launched their first programmed savings account *Pasanaku*, which has witnessed a great decrease over the last year.

⁹ Please see Section III for a list and description of withdrawal-side commitment features.

¹⁰ Harvard/Princeton Microsavings Web Survey; interview.

However, the product is continuing. The decrease in number of accounts is believed to stem from the product's delivery rather than lack of demand for the product. FFP FIE will be relaunching this product at the end of this year. Among other things, they will be experimenting with **deposit collectors** and/or establishing small points of service in areas with a high concentration of clients, like in market places. This will facilitate the required frequent deposits, especially among a majority of their clients that are female market vendors who may not be able to leave their goods so that they can go make a deposit at FIE. Further focus points in the product relaunch include staff training; in particular ensuring that staff provide a careful and detailed explanation of the product. They noticed that a careful explanation of the product is essential in order to convince clients to open an account.

B. Women's Savings Account (*Cuenta Feminina*) by Guayacan Credit Union (*Cooperativa de Ahorro y Crédito Guayacán*) in Guatemala¹¹

The Guayacán Credit Union has a total of 11 points of service serving approximately 41,000 clients in both rural and urban areas of Guatemala. It is legally authorized to mobilize savings.

The Women's Savings Account is targeted to women who are perceived to save for birthdays, Christmas, and other family-oriented events. Interested women define an amount they want to save each month and they define a length of time during which they want to save. If they are successful in meeting the self-defined goals, they receive interest on their savings and can roll over the account. Interest on this account is one percentage point higher than passbook savings accounts. **Deposit collectors** are available to collect funds every month.

The Women's Savings Account has witnessed a decrease over the last year. Guayacan staff highlighted that the product is most successful in areas where women are earning income.

C. *Om Sap Thawisin* Savings Card Deposits by Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand¹²

BAAC's lottery savings cards is a type of deposit that is payable at sight upon request. A client may purchase as many cards as s/he chooses, each for a price of 500 baht. The cards mature after three years. At the end of the maturity period a client may withdraw his/her savings and interest earned.

BAAC's lottery savings cards can act as a **deadline for bonuses**. Clients have a chance to win prizes once every 3 months (12 times during the life of the card). Awards are based on two draws from the last three digits of the card serial numbers*so the more cards, the higher one's chance at winning.

¹¹ Harvard/Princeton Microsavings Web Survey; interview.

¹² Harvard/Princeton Microsavings Web Survey; BAAC's website: <http://www.baac.or.th>

D. **Passbook Savings, Youth Savings, Term Deposits by SANASA Thrift and Credit Cooperative Societies in Sri Lanka**¹³

SANASA Thrift and Credit Cooperative Societies is a federation representing affiliated credit unions that serve approximately 10 million clients in rural, peri-urban and urban areas of Sri Lanka.

Common savings products offered by SANASA's affiliates include Passbook Savings Term Deposits and Children's & Youth Savings.

Deposit collectors are available to all clients regardless of the type of savings product they have chosen. Term deposit accounts have an additional commitment feature since this product design **restricts the timing of withdrawals** until the account has matured by imposing a fee on early withdrawals.

E. **Savings and Loan Account by SafeSave in Bangladesh**¹⁴

SafeSave is a cooperative serving approximately 6,800 clients in urban Bangladesh. Central to SafeSave's Savings and Loan Account is a daily door-to-door collection from clients. From the perspective of savings, the frequent visits by **deposit collectors** can facilitate clients to commit to saving more today. In particular daily deposit collection provides discipline without the obligation and compulsion that goes with the established fixed installment model (Matin 2002, 21). In our web-survey the Savings and Loan Account is reported as their only savings product.

F. **Simpedes, Simaskot, Deposito by Bank Rakyat Indonesia (BRI) in Indonesia**¹⁵

Bank Rakyat Indonesia is a state bank that has received widespread recognition for its ability to achieve scale in micro-savings mobilization—close to 3 billion in voluntary savings through 16.1 million savings accounts in the late 1990s.

Its most popular savings products are SIMPEDES and SIMASKOT, which are targeted to small rural and urban savers respectively. These savings products are characterized by flexibility: clients are able to access unlimited withdrawals instantly. There is no minimum balance and clients earn a positive interest rate.

SIMPEDES and SIMASKOT account holders participate in a lottery that holds a prize drawing every six months, which may serve as a **deadline for bonuses** since the account's amount determines the issuing of lottery coupons.

DEPOSITO is a fixed deposit instrument, which, like all fixed deposit products, is governed by the **restricted timing of withdrawals**.

¹³ Harvard/Princeton Microsavings Web Survey.

¹⁴ Harvard/Princeton Microsavings Web Survey; Matin (2002).

¹⁵ BRI website; Maurer (1999).

G. Gold Savings by Jigsaw Development in Thailand¹⁶

“Cash savings is only for the few. They cannot control the presence of cash. It’s a new but promising product for us.” -J. Melhede, Jigsaw Development

Jigsaw Development is a private limited company with limited outreach in peri-urban areas of Thailand. The quote above highlights the demand perceived by Jigsaw’s president that people look for savings facilities with commitment features.

Jigsaw Development’s *Gold Savings* account, targeted to microentrepreneurs, was introduced in 2003 and numbers 50 accounts to date. “Clients use gold as a means of savings.” Clients buy gold with a 20 percent downpayment, and Jigsaw lends them the remaining 80 percent. They make daily repayments over a period of 35-70 days. Jigsaw charges an interest rate of approximately 20 percent for a gold loan. Jigsaw has **deposit collectors**.

H. Savings for Old Age, Children Education, Housing, and Religious Ceremony by Bank Dagang Bali (BDB) in Indonesia¹⁷

Bank Dagang Bali is a regulated bank that operates in rural, peri-urban, and urban areas of Bali, Indonesia. Savings account for 70 percent of their capital base.

In addition to passbook savings accounts and time deposits, Bank Dagang Bali has several long-term savings products that appeal to savers who seek to commit to long-term savings goals:

- (i) Savings for old age
- (ii) Savings for children education
- (iii) Savings for housing
- (iv) Savings for religious ceremony

These products have an interest rate that is higher than a passbook account and lower than a time deposit. These accounts require monthly deposits, have a lower minimum balance than time deposits, and have a floating interest rate.

Although it is not possible for BDB to verify that the money saved in these accounts is indeed used for the expressed purpose (**restricted use**), it is encouraged by the product’s design. For example, the Savings for Children Education account has a **restricted timing of withdrawal** feature that only allows withdrawals when the client’s child is 19 years old.

¹⁶ Harvard/Princeton Microsavings Web Survey.

¹⁷ Harvard/Princeton Microsavings Web Survey; interview.

The long-term nature of these products, which are often marketed together, requires effective marketing strategies. BDB has segmented their market into the informal and formal sectors. Clients employed in the informal sector receive **monthly door-to-door deposit collection** whereas clients employed in the formal sector can benefit from **a BDB visit to their paymaster every month**.

I. *Passbook Savings, Fixed Deposits, Savings Certificates, Children's Accounts, Savings Lottery Campaign by Hatton National Bank (HNB), Gami Pubuduwa (village reawakening) Program in Sri Lanka*¹⁸

In the late 1990s HNB was the largest privately owned Sri-Lankan commercial bank. In mid-1989 HNB opened 13 GP units at village locations to be serviced by their *Gami PubuduwaUpadeshakas*, or barefoot bankers.

By 1997 the GP program had generated deposit levels that were much higher than loans outstanding. The deposit facilities offered comprises a range of features suitable for microsavers, such as low amounts to open accounts and earn interest. It also offers convenience and thus helps build commitment through its use of **deposit collectors**.

J. *Daily Deposit Plan, Monthly Deposit Plan by Vivekananda Sevakendra O Sishu Uddyon (VSSU) in India*¹⁹

VSSU is an NGO based in West Bengal, India that served approximately 6,990 clients in 2002. VSSU's main products are contract savings plans with regular daily or monthly deposit amounts:

Daily Deposit Plan: the most popular account. It has regular daily deposits in fixed amounts collected at the client's doorstep by **deposit collectors**. Withdrawals are permitted but incur a fee to the client.

Monthly Deposit Plan: consists of regular monthly deposits for fixed periods collected at the client's doorstep by **deposit collectors**. Withdrawals are not permitted.

Clients also receive incentives including cash gifts on successful maturity and some insurance cover.

K. *Super Savings (Superahorros) by Banefe-Banco Santander in Chile*²⁰

Banefe-Banco Santander is a commercial bank operating in Chile's urban areas serving approximately 750,000 total clients.

Its *Superahorros* account allows the client to save without noticing due to its **automatic transfer** feature. The client can specify a fixed monthly amount that is then deducted from his/her credit

¹⁸ World Bank (1997).

¹⁹ Rutherford and Staehle (2002).

²⁰ Harvard/Princeton Microsavings Web Survey; interview.

card or checking account, wherever his/her salary is deposited. These monthly deductions are placed in the SUPERAHORROS account.

The *Superahorros* account is one of Banefe's most popular accounts, serving approximately 90,000 clients. The product is targeted to microentrepreneurs and salaried employees but does include a variation that is targeted to children, which has a lower monthly deposit requirement.

L. **Passbook Savings, Term Deposits, and Children's & Youth Savings Account by Iaguei Credit Union (Cooperativa de Ahorro y Crédito Iaguei) in Nicaragua²¹**

Iaguei is a credit union in Nicaragua serving approximately 2,460 in rural, peri-urban and urban areas. It offers three different types of savings products:

- (i) Passbook Savings
- (ii) Term Deposits
- (iii) Children's & Youth Savings

Deadline for bonuses (lotteries) and **deposit collectors** are features of all savings products. Term deposit accounts have an additional commitment feature since this product design **restricts the timing of withdrawals** until the account has matured by imposing a fee on early withdrawals.

M. **Individual Development Account by First State Community Loan Fund in Delaware, USA²²**

First State Community Loan Fund is a nonprofit organization that manages the matches of Individual Development Accounts (IDAs) in three counties of Delaware, USA, covering urban, tourist, and agricultural areas. The program has 450 IDA accounts allocated to them, of which 143 are used to date. This IDA program started in November 2001 and witnessed a growth in accounts in June 2002.

IDAs are savings accounts that are matched 1:1 or 1.5:1, depending upon the population served. They require minimum monthly deposits of \$25 to a maximum of \$1,500 that will be matched. The minimum savings term is 6 months.

Furthermore, IDA contracts are governed by **restricted use**; savers must commit to save for a specific goal, which has been defined by this program to be:

²¹ Harvard/Princeton Microsavings Web Survey

²² Harvard/Princeton Microsavings Web Survey; interview.

- (i) postsecondary education
- (ii) homeownership for first-time homeowners
- (iii) small business start-up or expansion

IDA accounts are joint accounts between the saver and First State Community Loan Fund. These accounts are held in commercial banks. When the account matures, a check with the account's money is made out to the provider of one of the three allowable savings goals. For example, a check is made out to a postsecondary educational institution.

N. Education Savings Account (Cuenta de Educación) by Bandesarrollo Microempresas in Chile²³

Bandesarrollo Microempresas is a bank serving approximately 36,000 clients in urban, peri-urban, and rural areas of Chile.

Its *Cuenta de Educación* offers clients a long-term savings plan to meet the future expenses of their children's educational fees. The account has **restricted withdrawals** (maximum of 6 per year). It also assists with devising an appropriate savings plan for the client by calculating how much one has to save to meet future educational expenses.

VI. IMPLICATIONS FOR POLICYMAKERS AND MFIS

The principal recommendation is that with proper piloting of savings innovations, much can be learned about the relative merit of different savings product features. In Matin's comparative study of ASA, Gono Bima, and SafeSave, he noted that the former two—both unsuccessful in their long-term ability to offer new savings services—had failed to conduct careful piloting of their new products (Matin 2002, 27).

To answer these questions, some microfinance organizations must take the lead and pilot these products under a careful and scientific randomized launch. This is not the type of study that all organizations can or should do, but if a few do so, then the masses can learn from those experiences and the industry as a whole can leap ahead in its ability to provide effective savings products for the poor.

This paper is part of a larger project to undergo such rigorous and quantitative pilots of innovative savings products. From a policy perspective, it is important to examine the full range of impacts from the product. The first outcome of interest should be the balance held in the financial institution itself. These data reveal the impact the program will have on the financial institution and the overall level of savings mobilization for the country as a whole. However, just because a household saves more in one account does not mean that household savings have risen. The household might be

²³ Harvard/Princeton Microsavings Web Survey; interview, website: <http://www.bancodeldesarrollo.cl>

substituting from one form of savings (perhaps inferior, such as an informal mechanism, hence preferable) to another. Such substitution only can be observed through a detailed household survey. Lastly, depending on who controls the savings account, a commitment savings product might alter the relative power and decision making within a household, and hence a detailed household survey should include information about decision-making dynamics within the household.

The authors currently are working with a rural bank in the Philippines to test a new product, called the SEED product, which uses several of the ideas discussed in this paper to try to help individuals commit to a savings plan. The pilot is being conducted through a rigorous randomized evaluation pilot, so that quantitative impacts can be measured.

VII. CONCLUSION

Savings products with commitment mechanisms are a valuable complement to flexible savings products. While the latter aims to offer low-income and poor communities safe and convenient access to their funds to meet nondiscretionary spending needs, savings products with commitment mechanisms can be more suitable to meet long-term goals and anticipated events, such as purchasing a house or paying school fees.

Products can explicitly be designed to encourage savings, such as term deposits and programmed savings accounts that restrict access to one's deposits and can require consistent savings over time. Savings products also can harbor lesser degrees of commitment. For example, collecting deposits via a deposit collector can instill a sense of obligation in the client. Of the 134 savings products reviewed here, 35 involved a deposit collector. Savings boxes can also be regarded as a commitment device, yet only about 1 percent of savings products reviewed here offered deposit boxes.

This survey paper demonstrates a variety of innovative strategies being employed to try to help individuals commit to save according to plan, rather than impulse. It also indicates that there is an interest in expanding savings product innovations: 74 of the 80 survey respondents are interested in developing new savings products and marketing strategies. The microfinance industry is now in need of serious, rigorous and quantitative testing to unravel what works and what does not. For cost reasons alone, this is not work that every microfinance organization should do. Rather, a few leaders can and should do for the benefit of the larger community worldwide. Donors interested in helping product public goods such as these can and should fund such research. Much care should be taken to understand the local socioeconomic contexts so that care can be taken to understand what lessons are generalizable and what are not.

The single most critical question that must be asked is whether these programs actually help individuals save more, or whether they just force individuals to transfer money from other sources into these commitment products. In other words, does aggregate household or personal savings actually rise? Second, if it does, how do the additional savings alter the life of the savers? Do they save more for health and education, or does it merely cause less spending on daily consumption, and more spending on a party? Lastly, how do commitment products alter the bargaining dynamics within the household? Do such products empower women by giving them access to savings that is safe from others in their household?

APPENDIX 1

ESTIMATED GROWTH OF REGULAR SAVINGS ACCOUNTS (PERCENT)²⁴

INSTITUTION NAME	SAVINGS PRODUCT NAME	FIRST OFFERED	ESTIMATED 1-YEAR GROWTH
Region: Africa			
TCHUMA Cooperativa de Crédito e Poupança	Current account	2001	39
WOCCU- SACCO NET UGANDA	Passbook Savings	1990	25
Teba Bank	Teba Cash	1975	6
Peoples Bank	Peoples Club	1998	5
Peoples Bank	PowerSave	1998	-22
Teba Bank	Grow With Us	2002	-98
Region: Asia			
Kashf Foundation	Client Savings	1996	152
Panabo Multi-Purpose Cooperative	Youth Savings Club	2000	67
Rudramadevi Macts	DPS	1997	43
Baitul Mal wa ttamwil (BMT)	Citra hasanah		
	tabungan Mudharabah	1995	33
Participatory Development Action Program	Pass Book and Savings report format	1996	33
Bansalan Cooperative Society	Savings and Credit with Education	1998	21
Mindanao Development Bank	Regular Savings Account	1986	8
SafeSave	Savings and loan account	1997	5
Region: E. Europe			
Rousse Popular Cooperative	Current Account	1994	33
Region: Latin America			
CAC Iaguei	Cuenta de Ahorro Infante-Juvenil	1999	1093
FFP-FIE.	Caja de Ahorro "Confie AHORRO CONFIALE"	2001	921
Sistema de Credito Cooperativo SICREDI	SICREDINVEST	1983	360
Banco del Desarrollo (Bandesarrollo Microempresas)	Libreta de ahorro	1982	202
Banco del Desarrollo (Bandesarrollo Microempresas)	Cuenta de ahorro a la vista, con tarjeta que opera en la red de cajeroa	1996	200
Cooperativa de Ahorro y Crédito Abierta "San José de Punata" Ltda.	Ahorro Infantil	2001	175
Coop. De Ahorro y Crédito Dinámica	AHORRO RETIRABLE	1998	156
Coop. De Ahorro y Crédito Económica	Cuenta de Ahorro Infante- Juvenil	2000	125

²⁴ This appendix refers to the results of the Harvard/Princeton Microsavings Web Survey distributed in January 2003. Although a higher number of MFIs provided what is reported here, some respondents could not be included because they do not mobilize voluntary deposits, or they do so as a prerequisite for access to credit.

Appendix 1. continued.

INSTITUTION NAME	SAVINGS PRODUCT NAME	FIRST OFFERED	ESTIMATED 1-YEAR GROWTH
Coop. De Ahorro y Crédito QUILLACOLLO	Ahorro Infantil	2001	77
ACECENTA	A la Vista Y a Plazo	1996	74
Coop. De Ahorro y Profesional	Cuenta de ahorro en libreta máxima	1999	69
Caja Municipal de Arequipa	CTS (MN"-ME)	1992	57
BANEFE-BANCO SANTANDER CHILE	SUPERAHORRO	1994	50
Caja Municipal de Sullana	1986	50	
Coop. De Ahorro y Crédito Chorotega	Ahorros Retirables	1988	47
Coop. De Ahorro y Crédito Financiera Iaguei	Cuenta Máxima	2001	43
Coop. De Ahorro y Crédito TRINIDAD	Ahorro Infantil	2000	41
Coop. De Ahorro y Crédito Integral	Ahorro Infanto juvenil	2000	40
Coop. De Ahorro y Crédito Integral	Ahorro Corriente	1999	40
Caja Municipal de Arequipa	Depósitos de Ahorro – Ordenes de Pago (Moneda nacional y Extranjera)	1986	40
Coop. De Ahorro y Crédito Profesional	Cuentas infantil y juvenil	1999	32
Cooperativa de Ahorro y Crédito Chorotega	Ahorro de Menores	1992	29
ACODJAR	Ahorro a plazo	1992	29
Caja Los Andes	CAJA DE AHORRO	1996	25
CMAC PIURA SAC	Ordenes de pago	1992	25
Coop. De Ahorro y Crédito Economica	Cuenta ahorro máxima	2000	24
Cooperativa de Ahorro y Crédito Abierta "San José de Punata" Ltda.	Caja de ahorros	1964	23
Coop. De Ahorro y Crédito Avances	Cuenta ahorro máxima	1996	23
COFINCAFE	Ahorro a la vista	1989	18
ACOADESCOAMA	Ahorro a la Vista	1996	16
COOPROGRESO	Cuenta de Ahorros	1970	14
ACOPUS	Ahorro Infantil	2000	13
Cooperativa de Ahorro y crédito Abierta Trinidad			
CACTRI LTDA	CAJA DE AHORRO	1963	11
Caja Libertad, Cooperativa de Ahorro y Préstamo	AHORRO NORMAL	1960	9
ACOPUS	Ahorro a la Vista	1998	8
Coop. De Ahorro y Crédito Central	AHORRO RETIRABLE	1999	8
Coop. De Ahorro y Crédito Guayacan	Cuenta Impulso	1966	4
COOPERATIVA DE AHORRO Y CREDITO ABIERTA QUILLACOLLO LTDA.	CAJA DE AHORRO	1962	2
Coop. De Ahorro y Crédito San Martin de Porres	CAJA DE AHORRO moneda extranjera	1985	-1
Coop. De Ahorro y Crédito Central	Cuenta de Ahorro Infantil	2002	-18

APPENDIX 2

ESTIMATED GROWTH OF TERM DEPOSIT ACCOUNTS²⁵

INSTITUTION NAME	SAVINGS PRODUCT NAME	FIRST OFFERED	ESTIMATED 1-YEAR GROWTH
Region: Africa Teba Bank	Teba Fixed deposit	2000	100
Region: Asia The First MicroFinanceBank Ltd.	Term Deposits of various maturities	2002	n/a
Region: E. Europe Rousse Popular Cooperative	Term Deposits	1994	14
Region: N. America Chalmers Center for Economic Development	Time-Bound ASCA	2001	0
Region: Latin America Cooperativa de Ahorro y Crédito "LA PORTUARIA"	AHORRO DEPOSITOS A PLAZO Y C.T.S. (compensación laboral)	2001	2326
Cooperativa de Ahorro y Crédito FINANTEL	Depósitos a plazo fijo	2002	1100
Coop. De Ahorro y Crédito Economica	Depósitos a Plazo Fijo	2000	400
Coop. De Ahorro y Crédito Profesional	certificados a plazo fijos	1999	300
Coop. De Ahorro y Crédito Integral	Depósitos a Plazo Fijo	1999	170
Coop. De Ahorro y Crédito Dinamica	AHORRO PLAZO FIJO	1999	165
ACACESPSA	AHORRO PLAZO FIJO		100
Coop. De Ahorro y Crédito Avances	AHORRO PLAZO FIJO	1997	71
Caja Municipal de Sullana Depósitos a Plazo Fijo		1986	47
ACODJAR	Ahorro a Plazo	1992	29
CMAC PIURA SAC	DEPOSITOS A PLAZO	1985	26
Cooperativa de Ahorro y Crédito Financiera			
Iaguei, R. L.	Depósitos a Plazo Fijo	1998	18
Caja Municipal de Arequipa	Depositos a plazo fijo (MN y ME)	1988	16
Coop. De Ahorro y Crédito San Martin de Porres	Depositos a plazo		12
COFINCAFE	CDAT (Certificado de Ahorro a Terminio)	1989	10
Coop. De Ahorro y Crédito Central	AHORRO PLAZO FIJO	2000	-42

²⁵ This appendix refers to the results of the Harvard/Princeton Microsavings Web Survey distributed in January 2003. Although a higher number of MFIs provided what is reported here, some respondents could not be included because they do not mobilize voluntary deposits, or they do so as a prerequisite for access to credit.

APPENDIX 3

ESTIMATED GROWTH OF PROGRAMMED SAVINGS ACCOUNTS²⁶

INSTITUTION NAME	SAVINGS PRODUCT NAME	FIRST OFFERED	ESTIMATED 1-YEAR GROWTH
Region: Africa Association des Agriculteurs Sans Frontieres	Argent. Kit Agricole	2000	0
Region: Asia Bank Dagang Bali	Savings for Old Age, Savings for Children Educ	1970	5
Nabunturan Integrated Cooperative (NICO)	Savings Millenuim	1999	-13
Region: Latin America ACODJAR	Christmas Savings (Ahorro Navideno)	1993	20
ACECENTA	Programmed Savings (Ahorro Programado)	1996	19
Lourdes Codeza de RL	Programmed Savings: Education and Christmas (Ahorro Programado: Escolar Y Navideno)	1998	-30
CAC Guayacan	Women's Savings (Cuenta Feminina)	1999	-31
FFP-FIE S.A.	Programmed Savings Pasanaku (Ahorro Programado "Pasanaku")	2000	-64
ACACESPSA	Education Savings (Ahorro Programado Escolar)		
ACACSEMERSA	Programmed Savings (Ahorro Programado)		

²⁶ This appendix refers to the results of the Harvard/Princeton Microsavings Web Survey distributed in January 2003. Although a higher number of MFIs provided what is reported here, some respondents could not be included because they do not mobilize voluntary deposits, or they do so as a prerequisite for access to credit.

APPENDIX 4 MICROSAVINGS WEB SURVEY

Microsavings 5 Minute Survey

Please send completed surveys to Nathalie Gons, Research Assistant to professor Dean Karlan,
email: ngons@princeton.edu, fax: (609) 258-5974.

Name of Institution:

Country:

Contact Person:

E-mail: Telephone:

Type of institution: ☐ bank ☐ cooperative ☐ NGO ☐ self-help group ☐ other: _____

Total number of clients: _____

Location of the program: (mark all that apply) ☐ rural ☐ peri-urban ☐ urban

Please answer the following questions about one of your savings products.

- 1) Product Name _____
- 2) Target Market: ☐ farmers ☐ micro-entrepreneurs ☐ salaried employees ☐ children ☐ other
- 3) Is there a group nature to the savings program, or is the savings program entirely individualized?
☐ group ☐ individual
- 4) Number of accounts currently (approximate is fine): _____
- 5) Number of accounts 1 year ago (approximate is fine): _____
- 6) Total current volume of savings: _____ Currency: ☐ local ☐ US\$ ☐ other: _____
- 7) In what year was the product first offered? _____
- 8) What is the min. balance required to open an account? _____ Currency: ☐ local ☐ US\$ ☐ other: _____
- 9) What is the min. balance required to earn interest? _____ Currency: ☐ local ☐ US\$ ☐ other: _____
- 10) What is the account's min. term? _____ weeks months
max. term? _____ weeks months ☐ not applicable
- 11) What is the interest rate? _____ monthly annual other
- 12) Are there restrictions on withdrawals? ☐ yes ☐ no
If **yes**, please mark all that apply:
☐ withdrawal fee
☐ part or all of the interest is forfeited if withdrawn before term of savings is complete

__money can be withdrawn only for a specific purpose, such as:

__education __health __other: _____

This is: __strictly enforced __loosely enforced __not enforced

13) Are deposits made in person at the institution's or organization's office? __Yes __No

14) Are deposits made via deposit collectors? __Yes __No

15) Do you offer savings boxes for clients to collect change and bills in the household? __Yes __No

16) Do you offer debit cards? __Yes __No

17) Have you ever used a lottery of some form to encourage deposits or balances? __Yes __No

If **yes**, please describe how the lottery worked. If it was stopped, please describe why.

18) How else does the program encourage deposits or balances?

a. Additional services at preferential rates? __life insurance __health insurance

b. Other: _____

19) Please list below any other product characteristics that are not mentioned above.

20) How important are savings to your institution? (please mark one)

__One of our main products offered to clients

__Important, but not as encouraged as our other products

__ Not something we focus on heavily

21) What percentage of your capital base is composed of savings? _____%

22) Do you offer training for clients interested in learning how to save more? __Yes __No

23) Overall, how satisfied are you with client savings? __very satisfied __satisfied __not satisfied

24) Would you be interested in developing new products or marketing strategies in order to mobilize more savings?
__Yes __No

25) Please name the government institution that regulates your institution, if applicable:

26) Do you have another savings product? __Yes __No

If **no**, we thank you for your participation!

If yes, the above is repeated for each product reported by the institution.

REFERENCES

- Ainslie, G., 1992. *Picoeconomics*. Cambridge: Cambridge University Press.
- Anderson, S., and J. M. Baland, 2002. "The Economics of Roscas and Intra-household Resource Allocation." *Quarterly Journal of Economics* 117(3, August):963-95.
- Ashe, J., 2003. A Symposium on Savings led Microfinance and the Rural Poor. Working Paper, Brandeis University, Massachusetts.
- Ashe, J., and L. Parrot, 2003. Pact's Women's Empowerment Program: A Savings and Literacy Led Alternative to Financial Institution Building. Working Paper, Brandeis University, Massachusetts.
- Benartzi, S., and R. Thaler, 2002. "Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving." University of Chicago. Mimeographed.
- Beverly, S., A. Moore, and M. Schreiner, 2001. "A Framework of Asset Accumulation Stages and Strategies." Center for Social Development, Washington University.
- Deaton, A., 1989. *Savings in Developing Countries: Theory and Review*. Proceedings of the World Bank Annual Conference on Development Economics. Washington, D.C.
- Duflo, E., 2003. Poor but Rational? MIT Working Paper, Massachusetts Institute of Technology, Cambridge, Massachusetts.
- Evans, A. C., 2000. Strengthening Credit Unions in Sri Lanka. WOCCU Research Monograph 19, World Council of Credit Unions, Wisconsin.
- Friedman, M., 1954. *A Theory of the Consumption Function*. Princeton: Princeton University Press.
- Godoy, R., J. R. Franks, and M. A. Claudio, 1996. Adoption of Modern Agricultural Technologies by Lowland Amerindians in Bolivia: The Role of Households, Villages, Ethnicity, and Markets. Development Discussion Paper No. 539, Harvard Institute for International Development, Harvard University.
- Goldstein, G., and I. Barro, 1999. *The Role and Impact of Savings Mobilization in West Africa*. UNDP and UNCDF.
- Grant, W., and H. Allen, 2003. "CARE's Mata Masu Dubara (Women on the Move) Program in Niger: Successful Financial Intermediation in the Rural Sahel. *Journal of Microfinance* 4(2, Fall).
- GTZ, 1997. *Inventory of Savings Services*. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Germany.
- Gugerty, M. K., 2001. "You Can't Saving Alone: Testing Theories of Rotating Savings and Credit Organizations." PhD Dissertation, Harvard University.
- Ishikawa, T., and K. Ueda, 1984. *The Bonus Payment System and Japanese Personal Savings*. In M. Aoki, ed., *The Economic Analysis of the Japanese Firm*. North-Holland.
- Karlan, D., 2003. Social Capital and Group Banking. Princeton University Research Program in Development Studies Working Paper.
- Laibson, D., 1996. Hyperbolic Discount Functions, Undersaving, and Savings Policy. NBER Working Paper 5635, Cambridge, Massachusetts.
- , 1997. "Golden Eggs and Hyperbolic Discounting." *The Quarterly Journal of Economics* 112(2, May):443-78.
- Lowenstein, G., and D. Prelec, 1992. "Anomalies in Intertemporal Choice: Evidence and an Interpretation." *Quarterly Journal of Economics* 107(2):573-97.
- Lowenstein, G., and R. H. Thaler, 1989. "Anomalies: Intertemporal Choice." *Journal of Economic Perspectives* 3(4):181-93.
- Madrian, B., and D. Shea, 2001. "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior." *Quarterly Journal of Economics* 116:1149-525.
- , 2002. "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior." *Quarterly Journal of Economics* 116 (4, November):1149-87.

- Matin, I., 2002. New Thinking and New Forms of Microfinancial Service Provision in Bangladesh: A Comparative Study of ASA, SafeSave, and Gono Bima. Working Paper, Working Group on Savings Mobilization, Consultative Group to Assist the Poorest, The World Bank, Washington, D.C.
- Matthews, B., and A. Ali, 2003. "Ashrai: A Savings-Led Model for Fighting Poverty and Discrimination." *Journal of Microfinance* 4(2, Fall).
- Maurer, K., 1999. *Bank Rakyat Indonesia; Indonesia Case Study*. Working Paper, Working Group on Savings Mobilization, Consultative Group to Assist the Poorest, The World Bank, Washington, D.C.
- Modigliani, F., 1966. "The Life-cycle Hypothesis of Saving, the Demand for Wealth, and the Supply of Capital." *Social Research* 33:160-217.
- Morduch, J., 1999. "The Microfinance Promise." *Journal of Economic Literature* 37(4, December):1569-614.
- Mullainathan, S., and R. Thaler, 2000. Behavioral Economics. Working Paper 00-27, Department of Economics, Massachusetts Institute of Technology.
- Neumark, D., 1995. "Are Rising Earnings Profiles a Forced-Savings Mechanism?" *Economic Journal* 105(428, January):95-106.
- O'Donahue, T., and M. Rabin, 1999. "Doing it Now or Doing it Later." *The American Economic Review* 89(1):103-21.
- Rutherford, S., 2000. *The Poor and Their Money*. New Delhi: Oxford University Press.
- Rutherford, S., and M. Staehle, 2002. *Innovative Approaches to Delivering MF Service: The Case of VSSU, West Bengal*. Micro-Save Africa, Kenya.
- Rutherford, S., et al. 1999. "Savings and the Poor: the Methods, Use and Impact of Savings by the Poor of East Africa." Report prepared for MicroSave-Africa, Kenya.
- Shefrin, H. M., and R. H. Thaler, 1988. The Behavioral Life-cycle Hypothesis. *Economic Inquiry* 26:609-43.
- Shipton, P., 1992. "The Rope and the Box: Group Savings in the Gambia." In D. W. Adams and D. A. Fitchett, eds., *Informal Finance in Low-Income Countries*. Boulder: Westview Press.
- Thaler, R. H., 1985. "Mental Accounting and Consumer Choice." *Marketing Science* 4:199-214.
- , 1990. "Anomalies: Saving, Fungibility and Mental Accounts." *Journal of Economic Perspectives* 4(1):193-205.
- , 1992. *The Winner's Curse: Paradoxes and Anomalies of Economic Life*. Princeton: Princeton University Press.
- Townsend, R., 1995. "Consumption Insurance: An Evaluation of Risk-sBearing Systems in Low-Income Economies." *Journal of Economic Perspectives* 9(3, Summer):83-102.
- Udry, C., 1994. "Risk and Insurance in a Rural Credit Market: An Empirical Investigation in Northern Nigeria." *Review of Economic Studies* 61(3, July):495-526.
- Vonderlack, R., and M. Schreiner, 2001. "Women, Microfinance, and Savings: Lessons and Proposals." Center for Social Development, Washington University.
- Wehnert, U., 1999. Rural Bank of Panabo, Philippines Case Study. Working Paper, Working Group on Savings Mobilization, Consultative Group to Assist the Poorest, The World Bank, Washington, D.C.
- Wilson, K., 2003. "The New Microfinance: An Essay on the Self-Help Movement in India." *Journal of Microfinance* 4(2, Fall).
- Wisniewski, S., 1999. Banco Caja Social; Columbia Case Study. Working Paper, Working Group on Savings Mobilization, Consultative Group to Assist the Poorest, The World Bank, Washington, D.C.
- Wright, G., 1999. "A Critical Review of Savings Services in Africa and Elsewhere." Micro-save Africa, Kampala, Uganda. Available: <http://www.undp.org/sum>.
- Zapata, G., 2003. "Community Savings Funds: Providing Access to Basic Financial Services in Marginalized Rural Areas of Mexico." *Journal of Microfinance* 4(2, Fall).

PUBLICATIONS FROM THE ECONOMICS AND RESEARCH DEPARTMENT

ERD WORKING PAPER SERIES (WPS)

(Published in-house; Available through ADB Office of External Relations; Free of Charge)

- | | |
|---|---|
| <p>No. 1 Capitalizing on Globalization
—<i>Barry Eichengreen, January 2002</i></p> <p>No. 2 Policy-based Lending and Poverty Reduction: An Overview of Processes, Assessment and Options
—<i>Richard Bolt and Manabu Fujimura, January 2002</i></p> <p>No. 3 The Automotive Supply Chain: Global Trends and Asian Perspectives
—<i>Francisco Veloso and Rajiv Kumar, January 2002</i></p> <p>No. 4 International Competitiveness of Asian Firms: An Analytical Framework
—<i>Rajiv Kumar and Doren Chadee, February 2002</i></p> <p>No. 5 The International Competitiveness of Asian Economies in the Apparel Commodity Chain
—<i>Gary Gereffi, February 2002</i></p> <p>No. 6 Monetary and Financial Cooperation in East Asia—The Chiang Mai Initiative and Beyond
—<i>Pradumna B. Rana, February 2002</i></p> <p>No. 7 Probing Beneath Cross-national Averages: Poverty, Inequality, and Growth in the Philippines
—<i>Arsenio M. Balisacan and Ernesto M. Pernia, March 2002</i></p> <p>No. 8 Poverty, Growth, and Inequality in Thailand
—<i>Anil B. Deolalikar, April 2002</i></p> <p>No. 9 Microfinance in Northeast Thailand: Who Benefits and How Much?
—<i>Brett E. Coleman, April 2002</i></p> <p>No. 10 Poverty Reduction and the Role of Institutions in Developing Asia
—<i>Anil B. Deolalikar, Alex B. Brillantes, Jr., Raghav Gaiha, Ernesto M. Pernia, Mary Racelis with the assistance of Marita Concepcion Castro-Guevara, Liza L. Lim, Pilipinas F. Quising, May 2002</i></p> <p>No. 11 The European Social Model: Lessons for Developing Countries
—<i>Assar Lindbeck, May 2002</i></p> <p>No. 12 Costs and Benefits of a Common Currency for ASEAN
—<i>Srinivasa Madhur, May 2002</i></p> <p>No. 13 Monetary Cooperation in East Asia: A Survey
—<i>Raul Fabella, May 2002</i></p> <p>No. 14 Toward A Political Economy Approach to Policy-based Lending
—<i>George Abonyi, May 2002</i></p> <p>No. 15 A Framework for Establishing Priorities in a Country Poverty Reduction Strategy
—<i>Ron Duncan and Steve Pollard, June 2002</i></p> | <p>No. 16 The Role of Infrastructure in Land-use Dynamics and Rice Production in Viet Nam's Mekong River Delta
—<i>Christopher Edmonds, July 2002</i></p> <p>No. 17 Effect of Decentralization Strategy on Macroeconomic Stability in Thailand
—<i>Kanokpan Lao-Araya, August 2002</i></p> <p>No. 18 Poverty and Patterns of Growth
—<i>Rana Hasan and M. G. Quibria, August 2002</i></p> <p>No. 19 Why are Some Countries Richer than Others? A Reassessment of Mankiw-Romer-Weil's Test of the Neoclassical Growth Model
—<i>Jesus Felipe and John McCombie, August 2002</i></p> <p>No. 20 Modernization and Son Preference in People's Republic of China
—<i>Robin Burgess and Juzhong Zhuang, September 2002</i></p> <p>No. 21 The Doha Agenda and Development: A View from the Uruguay Round
—<i>J. Michael Finger, September 2002</i></p> <p>No. 22 Conceptual Issues in the Role of Education Decentralization in Promoting Effective Schooling in Asian Developing Countries
—<i>Jere R. Behrman, Anil B. Deolalikar, and Lee-Ying Son, September 2002</i></p> <p>No. 23 Promoting Effective Schooling through Education Decentralization in Bangladesh, Indonesia, and Philippines
—<i>Jere R. Behrman, Anil B. Deolalikar, and Lee-Ying Son, September 2002</i></p> <p>No. 24 Financial Opening under the WTO Agreement in Selected Asian Countries: Progress and Issues
—<i>Yun-Hwan Kim, September 2002</i></p> <p>No. 25 Revisiting Growth and Poverty Reduction in Indonesia: What Do Subnational Data Show?
—<i>Arsenio M. Balisacan, Ernesto M. Pernia, and Abuzar Asra, October 2002</i></p> <p>No. 26 Causes of the 1997 Asian Financial Crisis: What Can an Early Warning System Model Tell Us?
—<i>Juzhong Zhuang and J. Malcolm Dowling, October 2002</i></p> <p>No. 27 Digital Divide: Determinants and Policies with Special Reference to Asia
—<i>M. G. Quibria, Shamsun N. Ahmed, Ted Tschang, and Mari-Len Reyes-Macasaquit, October 2002</i></p> <p>No. 28 Regional Cooperation in Asia: Long-term Progress, Recent Retrogression, and the Way Forward
—<i>Ramgopal Agarwala and Brahm Prakash, October 2002</i></p> |
|---|---|

- No. 29 How can Cambodia, Lao PDR, Myanmar, and Viet Nam Cope with Revenue Lost Due to AFTA Tariff Reductions?
—*Kanokpan Lao-Araya*
November 2002
- No. 30 Asian Regionalism and Its Effects on Trade in the 1980s and 1990s
—*Ramon Clarete, Christopher Edmonds, and Jessica Seddon Wallack*
November 2002
- No. 31 New Economy and the Effects of Industrial Structures on International Equity Market Correlations
—*Cyn-Young Park and Jaejoon Woo*
December 2002
- No. 32 Leading Indicators of Business Cycles in Malaysia and the Philippines
—*Wenda Zhang and Juzhong Zhuang*
December 2002
- No. 33 Technological Spillovers from Foreign Direct Investment—A Survey
—*Emma Xiaoqin Fan*
December 2002
- No. 34 Economic Openness and Regional Development in the Philippines
—*Ernesto M. Pernia and Pilipinas F. Quising*
January 2003
- No. 35 Bond Market Development in East Asia: Issues and Challenges
—*Raul Fabella and Srinivasa Madhur*
January 2003
- No. 36 Environment Statistics in Central Asia: Progress and Prospects
—*Robert Ballance and Bishnu D. Pant*
March 2003
- No. 37 Electricity Demand in the People's Republic of China: Investment Requirement and Environmental Impact
—*Bo Q. Lin*
March 2003
- No. 38 Foreign Direct Investment in Developing Asia: Trends, Effects, and Likely Issues for the Forthcoming TWO Negotiations
—*Douglas H. Brooks, Emma Xiaoqin Fan, and Lea R. Sumulong*
April 2003
- No. 39 The Political Economy of Good Governance for Poverty Alleviation Policies
—*Narayan Lakshman*
April 2003
- No. 40 The Puzzle of Social Capital
A Critical Review
—*M. G. Quibria*
May 2003
- No. 41 Industrial Structure, Technical Change, and the Role of Government in Development of the Electronics and Information Industry in Taipei, China
—*Yeo Lin*
May 2003
- No. 42 Economic Growth and Poverty Reduction in Viet Nam
—*Arsenio M. Balisacan, Ernesto M. Pernia, and Gemma Esther B. Estrada*
June 2003
- No. 43 Why Has Income Inequality in Thailand Increased? An Analysis Using 1975-1998 Surveys
—*Taizo Motonishi*
June 2003
- No. 44 Welfare Impacts of Electricity Generation Sector Reform in the Philippines
—*Natsuko Toba*
June 2003
- No. 45 A Review of Commitment Savings Products in Developing Countries
—*Nava Ashraf, Nathalie Gons, Dean S. Karlan, and Wesley Yin*
July 2003

ERD TECHNICAL NOTE SERIES (TNS)

(Published in-house; Available through ADB Office of External Relations; Free of Charge)

- No. 1 Contingency Calculations for Environmental Impacts with Unknown Monetary Values
—*David Dole*
February 2002
- No. 2 Integrating Risk into ADB's Economic Analysis of Projects
—*Nigel Rayner, Anneli Lagman-Martin, and Keith Ward*
June 2002
- No. 3 Measuring Willingness to Pay for Electricity
—*Peter Choynowski*
July 2002
- No. 4 Economic Issues in the Design and Analysis of a Wastewater Treatment Project
—*David Dole*
July 2002
- No. 5 An Analysis and Case Study of the Role of Environmental Economics at the Asian Development Bank
—*David Dole and Piya Abeygunawardena*
September 2002
- No. 6 Economic Analysis of Health Projects: A Case Study in Cambodia
—*Erik Bloom and Peter Choynowski*
May 2003

ERD POLICY BRIEF SERIES (PBS)

(Published in-house; Available through ADB Office of External Relations; Free of charge)

- | | | | |
|--------|--|--------|--|
| No. 1 | Is Growth Good Enough for the Poor?
—Ernesto M. Pernia, October 2001 | No. 11 | October 2002
Implications of a US Dollar Depreciation for Asian
Developing Countries
—Emma Fan
July 2002 |
| No. 2 | India's Economic Reforms
What Has Been Accomplished?
What Remains to Be Done?
—Arvind Panagariya, November 2001 | No. 12 | Dangers of Deflation
—D. Brooks and P. F. Quising
December 2002 |
| No. 3 | Unequal Benefits of Growth in Viet Nam
—Indu Bhushan, Erik Bloom, and Nguyen Minh
Thang, January 2002 | No. 13 | Infrastructure and Poverty Reduction—
What is the Connection?
—I. Ali and E. Pernia
January 2003 |
| No. 4 | Is Volatility Built into Today's World Economy?
—J. Malcolm Dowling and J.P. Verbiest,
February 2002 | No. 14 | Infrastructure and Poverty Reduction—
Making Markets Work for the Poor
—Xianbin Yao
May 2003 |
| No. 5 | What Else Besides Growth Matters to Poverty
Reduction? Philippines
—Arsenio M. Balisacan and Ernesto M. Pernia,
February 2002 | No. 15 | SARS: Economic Impacts and Implications
—Emma Xiaolin Fan
May 2003 |
| No. 6 | Achieving the Twin Objectives of Efficiency and
Equity: Contracting Health Services in Cambodia
—Indu Bhushan, Sheryl Keller, and Brad
Schwartz, March 2002 | No. 16 | Emerging Tax Issues: Implications of Globalization
and Technology
—Kanokpan Lao Araya
May 2003 |
| No. 7 | Causes of the 1997 Asian Financial Crisis: What
Can an Early Warning System Model Tell Us?
—Juzhong Zhuang and Malcolm Dowling,
June 2002 | No. 17 | Pro-Poor Growth: What is It and Why is It
Important?
—Ernesto M. Pernia
May 2003 |
| No. 8 | The Role of Preferential Trading Arrangements
in Asia
—Christopher Edmonds and Jean-Pierre Verbiest,
July 2002 | No. 18 | Public-Private Partnership for Competitiveness
—Jesus Felipe
June 2003 |
| No. 9 | The Doha Round: A Development Perspective
—Jean-Pierre Verbiest, Jeffrey Liang, and Lea
Sumulong
July 2002 | No. 19 | Reviving Asian Economic Growth Requires Further
Reforms
—Ifzal Ali
June 2003 |
| No. 10 | Is Economic Openness Good for Regional
Development and Poverty Reduction? The
Philippines
—E. M. Pernia and P. F. Quising | | |

SERIALS

(Co-published with Oxford University Press; Available commercially through Oxford University Press Offices, Associated Companies, and Agents)

1. Asian Development Outlook (ADO; annual)
\$36.00 (paperback)
2. Key Indicators of Developing Asian and Pacific Countries (KI; annual)
\$35.00 (paperback)

JOURNAL

(Published in-house; Available commercially through ADB Office of External Relations)

1. Asian Development Review (ADR; semiannual)
\$5.00 per issue; \$8.00 per year (2 issues)

MONOGRAPH SERIES

(Published in-house; Available through ADB Office of External Relations; Free of charge)

EDRC REPORT SERIES (ER)

- | | | | |
|--------|---|--------|--|
| No. 1 | ASEAN and the Asian Development Bank
— <i>Seiji Naya, April 1982</i> | No. 22 | Effects of External Shocks on the Balance of Payments, Policy Responses, and Debt Problems of Asian Developing Countries
— <i>Seiji Naya, December 1983</i> |
| No. 2 | Development Issues for the Developing East and Southeast Asian Countries and International Cooperation
— <i>Seiji Naya and Graham Abbott, April 1982</i> | No. 23 | Changing Trade Patterns and Policy Issues: The Prospects for East and Southeast Asian Developing Countries
— <i>Seiji Naya and Ulrich Hiemenz, February 1984</i> |
| No. 3 | Aid, Savings, and Growth in the Asian Region
— <i>J. Malcolm Dowling and Ulrich Hiemenz, April 1982</i> | No. 24 | Small-Scale Industries in Asian Economic Development: Problems and Prospects
— <i>Seiji Naya, February 1984</i> |
| No. 4 | Development-oriented Foreign Investment and the Role of ADB
— <i>Kiyoshi Kojima, April 1982</i> | No. 25 | A Study on the External Debt Indicators Applying Logit Analysis
— <i>Jungsoo Lee and Clarita Barretto, February 1984</i> |
| No. 5 | The Multilateral Development Banks and the International Economy's Missing Public Sector
— <i>John Lewis, June 1982</i> | No. 26 | Alternatives to Institutional Credit Programs in the Agricultural Sector of Low-Income Countries
— <i>Jennifer Sour, March 1984</i> |
| No. 6 | Notes on External Debt of DMCs
— <i>Evelyn Go, July 1982</i> | No. 27 | Economic Scene in Asia and Its Special Features
— <i>Kedar N. Kohli, November 1984</i> |
| No. 7 | Grant Element in Bank Loans
— <i>Dal Hyun Kim, July 1982</i> | No. 28 | The Effect of Terms of Trade Changes on the Balance of Payments and Real National Income of Asian Developing Countries
— <i>Jungsoo Lee and Lutgarda Labios, January 1985</i> |
| No. 8 | Shadow Exchange Rates and Standard Conversion Factors in Project Evaluation
— <i>Peter Warr, September 1982</i> | No. 29 | Cause and Effect in the World Sugar Market: Some Empirical Findings 1951-1982
— <i>Yoshihiro Iwasaki, February 1985</i> |
| No. 9 | Small and Medium-Scale Manufacturing Establishments in ASEAN Countries: Perspectives and Policy Issues
— <i>Mathias Bruch and Ulrich Hiemenz, January 1983</i> | No. 30 | Sources of Balance of Payments Problem in the 1970s: The Asian Experience
— <i>Pradumna Rana, February 1985</i> |
| No. 10 | A Note on the Third Ministerial Meeting of GATT
— <i>Jungsoo Lee, January 1983</i> | No. 31 | India's Manufactured Exports: An Analysis of Supply Sectors
— <i>Ifzal Ali, February 1985</i> |
| No. 11 | Macroeconomic Forecasts for the Republic of China, Hong Kong, and Republic of Korea
— <i>J.M. Dowling, January 1983</i> | No. 32 | Meeting Basic Human Needs in Asian Developing Countries
— <i>Jungsoo Lee and Emma Banaria, March 1985</i> |
| No. 12 | ASEAN: Economic Situation and Prospects
— <i>Seiji Naya, March 1983</i> | No. 33 | The Impact of Foreign Capital Inflow on Investment and Economic Growth in Developing Asia
— <i>Evelyn Go, May 1985</i> |
| No. 13 | The Future Prospects for the Developing Countries of Asia
— <i>Seiji Naya, March 1983</i> | No. 34 | The Climate for Energy Development in the Pacific and Asian Region: Priorities and Perspectives
— <i>V.V. Desai, April 1986</i> |
| No. 14 | Energy and Structural Change in the Asia-Pacific Region, Summary of the Thirteenth Pacific Trade and Development Conference
— <i>Seiji Naya, March 1983</i> | No. 35 | Impact of Appreciation of the Yen on Developing Member Countries of the Bank
— <i>Jungsoo Lee, Pradumna Rana, and Ifzal Ali, May 1986</i> |
| No. 15 | A Survey of Empirical Studies on Demand for Electricity with Special Emphasis on Price Elasticity of Demand
— <i>Wisarn Pupphavesa, June 1983</i> | No. 36 | Smuggling and Domestic Economic Policies in Developing Countries
— <i>A.H.M.N. Chowdhury, October 1986</i> |
| No. 16 | Determinants of Paddy Production in Indonesia: 1972-1981—A Simultaneous Equation Model Approach
— <i>T.K. Jayaraman, June 1983</i> | No. 37 | Public Investment Criteria: Economic Internal Rate of Return and Equalizing Discount Rate
— <i>Ifzal Ali, November 1986</i> |
| No. 17 | The Philippine Economy: Economic Forecasts for 1983 and 1984
— <i>J.M. Dowling, E. Go, and C.N. Castillo, June 1983</i> | No. 38 | Review of the Theory of Neoclassical Political Economy: An Application to Trade Policies
— <i>M.G. Quibria, December 1986</i> |
| No. 18 | Economic Forecast for Indonesia
— <i>J.M. Dowling, H.Y. Kim, Y.K. Wang, and C.N. Castillo, June 1983</i> | No. 39 | Factors Influencing the Choice of Location: Local and Foreign Firms in the Philippines
— <i>E.M. Pernia and A.N. Herrin, February 1987</i> |
| No. 19 | Relative External Debt Situation of Asian Developing Countries: An Application of Ranking Method
— <i>Jungsoo Lee, June 1983</i> | No. 40 | A Demographic Perspective on Developing Asia and Its Relevance to the Bank
— <i>E.M. Pernia, May 1987</i> |
| No. 20 | New Evidence on Yields, Fertilizer Application, and Prices in Asian Rice Production
— <i>William James and Teresita Ramirez, July 1983</i> | No. 41 | Emerging Issues in Asia and Social Cost Benefit Analysis
— <i>I. Ali, September 1988</i> |
| No. 21 | Inflationary Effects of Exchange Rate Changes in Nine Asian LDCs
— <i>Pradumna B. Rana and J. Malcolm Dowling, Jr., December 1983</i> | | |

- No. 42 Shifting Revealed Comparative Advantage: Experiences of Asian and Pacific Developing Countries
—*P.B. Rana, November 1988*
- No. 43 Agricultural Price Policy in Asia: Issues and Areas of Reforms
—*I. Ali, November 1988*
- No. 44 Service Trade and Asian Developing Economies
—*M.G. Quibria, October 1989*
- No. 45 A Review of the Economic Analysis of Power Projects in Asia and Identification of Areas of Improvement
—*I. Ali, November 1989*
- No. 46 Growth Perspective and Challenges for Asia: Areas for Policy Review and Research
—*I. Ali, November 1989*
- No. 47 An Approach to Estimating the Poverty Alleviation Impact of an Agricultural Project
—*I. Ali, January 1990*
- No. 48 Economic Growth Performance of Indonesia, the Philippines, and Thailand: The Human Resource Dimension
—*E.M. Pernia, January 1990*
- No. 49 Foreign Exchange and Fiscal Impact of a Project: A Methodological Framework for Estimation
—*I. Ali, February 1990*
- No. 50 Public Investment Criteria: Financial and Economic Internal Rates of Return
—*I. Ali, April 1990*
- No. 51 Evaluation of Water Supply Projects: An Economic Framework
—*Arlene M. Tadle, June 1990*
- No. 52 Interrelationship Between Shadow Prices, Project Investment, and Policy Reforms: An Analytical Framework
—*I. Ali, November 1990*
- No. 53 Issues in Assessing the Impact of Project and Sector Adjustment Lending
—*I. Ali, December 1990*
- No. 54 Some Aspects of Urbanization and the Environment in Southeast Asia
—*Ernesto M. Pernia, January 1991*
- No. 55 Financial Sector and Economic Development: A Survey
—*Jungsoo Lee, September 1991*
- No. 56 A Framework for Justifying Bank-Assisted Education Projects in Asia: A Review of the Socioeconomic Analysis and Identification of Areas of Improvement
—*Etienne Van De Walle, February 1992*
- No. 57 Medium-term Growth-Stabilization Relationship in Asian Developing Countries and Some Policy Considerations
—*Yun-Hwan Kim, February 1993*
- No. 58 Urbanization, Population Distribution, and Economic Development in Asia
—*Ernesto M. Pernia, February 1993*
- No. 59 The Need for Fiscal Consolidation in Nepal: The Results of a Simulation
—*Filippo di Mauro and Ronald Antonio Butiong, July 1993*
- No. 60 A Computable General Equilibrium Model of Nepal
—*Timothy Buehrer and Filippo di Mauro, October 1993*
- No. 61 The Role of Government in Export Expansion in the Republic of Korea: A Revisit
—*Yun-Hwan Kim, February 1994*
- No. 62 Rural Reforms, Structural Change, and Agricultural Growth in the People's Republic of China
—*Bo Lin, August 1994*
- No. 63 Incentives and Regulation for Pollution Abatement with an Application to Waste Water Treatment
—*Sudipto Mundle, U. Shankar, and Shekhar Mehta, October 1995*
- No. 64 Saving Transitions in Southeast Asia
—*Frank Harrigan, February 1996*
- No. 65 Total Factor Productivity Growth in East Asia: A Critical Survey
—*Jesus Felipe, September 1997*
- No. 66 Foreign Direct Investment in Pakistan: Policy Issues and Operational Implications
—*Ashfaq H. Khan and Yun-Hwan Kim, July 1999*
- No. 67 Fiscal Policy, Income Distribution and Growth
—*Sailesh K. Jha, November 1999*

ECONOMIC STAFF PAPERS (ES)

- | | |
|--|--|
| <p>No. 1 International Reserves:
Factors Determining Needs and Adequacy
—<i>Evelyn Go</i>, May 1981</p> <p>No. 2 Domestic Savings in Selected Developing Asian Countries
—<i>Basil Moore</i>, assisted by
<i>A.H.M. Nuruddin Chowdhury</i>, September 1981</p> <p>No. 3 Changes in Consumption, Imports and Exports of Oil Since 1973: A Preliminary Survey of the Developing Member Countries of the Asian Development Bank
—<i>Dal Hyun Kim and Graham Abbott</i>, September 1981</p> <p>No. 4 By-Passed Areas, Regional Inequalities, and Development Policies in Selected Southeast Asian Countries
—<i>William James</i>, October 1981</p> <p>No. 5 Asian Agriculture and Economic Development
—<i>William James</i>, March 1982</p> <p>No. 6 Inflation in Developing Member Countries: An Analysis of Recent Trends
—<i>A.H.M. Nuruddin Chowdhury and J. Malcolm Dowling</i>, March 1982</p> <p>No. 7 Industrial Growth and Employment in Developing Asian Countries: Issues and Perspectives for the Coming Decade
—<i>Ulrich Hiemenz</i>, March 1982</p> <p>No. 8 Petrodollar Recycling 1973-1980. Part 1: Regional Adjustments and the World Economy
—<i>Burnham Campbell</i>, April 1982</p> <p>No. 9 Developing Asia: The Importance of Domestic Policies
—<i>Economics Office Staff under the direction of Seiji Naya</i>, May 1982</p> <p>No. 10 Financial Development and Household Savings: Issues in Domestic Resource Mobilization in Asian Developing Countries
—<i>Wan-Soon Kim</i>, July 1982</p> <p>No. 11 Industrial Development: Role of Specialized Financial Institutions
—<i>Kedar N. Kohli</i>, August 1982</p> <p>No. 12 Petrodollar Recycling 1973-1980. Part II: Debt Problems and an Evaluation of Suggested Remedies
—<i>Burnham Campbell</i>, September 1982</p> <p>No. 13 Credit Rationing, Rural Savings, and Financial Policy in Developing Countries
—<i>William James</i>, September 1982</p> <p>No. 14 Small and Medium-Scale Manufacturing Establishments in ASEAN Countries: Perspectives and Policy Issues
—<i>Mathias Bruch and Ulrich Hiemenz</i>, March 1983</p> <p>No. 15 Income Distribution and Economic Growth in Developing Asian Countries
—<i>J. Malcolm Dowling and David Soo</i>, March 1983</p> <p>No. 16 Long-Run Debt-Servicing Capacity of Asian Developing Countries: An Application of Critical Interest Rate Approach
—<i>Jungsoo Lee</i>, June 1983</p> <p>No. 17 External Shocks, Energy Policy, and Macroeconomic Performance of Asian Developing Countries: A Policy Analysis
—<i>William James</i>, July 1983</p> <p>No. 18 The Impact of the Current Exchange Rate System on Trade and Inflation of Selected Developing Member Countries
—<i>Pradumna Rana</i>, September 1983</p> <p>No. 19 Asian Agriculture in Transition: Key Policy Issues
—<i>William James</i>, September 1983</p> <p>No. 20 The Transition to an Industrial Economy</p> | <p>in Monsoon Asia
—<i>Harry T. Oshima</i>, October 1983</p> <p>No. 21 The Significance of Off-Farm Employment and Incomes in Post-War East Asian Growth
—<i>Harry T. Oshima</i>, January 1984</p> <p>No. 22 Income Distribution and Poverty in Selected Asian Countries
—<i>John Malcolm Dowling, Jr.</i>, November 1984</p> <p>No. 23 ASEAN Economies and ASEAN Economic Cooperation
—<i>Narongchai Akrasanee</i>, November 1984</p> <p>No. 24 Economic Analysis of Power Projects
—<i>Nitin Desai</i>, January 1985</p> <p>No. 25 Exports and Economic Growth in the Asian Region
—<i>Pradumna Rana</i>, February 1985</p> <p>No. 26 Patterns of External Financing of DMCs
—<i>E. Go</i>, May 1985</p> <p>No. 27 Industrial Technology Development the Republic of Korea
—<i>S.Y. Lo</i>, July 1985</p> <p>No. 28 Risk Analysis and Project Selection: A Review of Practical Issues
—<i>J.K. Johnson</i>, August 1985</p> <p>No. 29 Rice in Indonesia: Price Policy and Comparative Advantage
—<i>I. Ali</i>, January 1986</p> <p>No. 30 Effects of Foreign Capital Inflows on Developing Countries of Asia
—<i>Jungsoo Lee, Pradumna B. Rana, and Yoshihiro Iwasaki</i>, April 1986</p> <p>No. 31 Economic Analysis of the Environmental Impacts of Development Projects
—<i>John A. Dixon et al.</i>, EAPI, East-West Center, August 1986</p> <p>No. 32 Science and Technology for Development: Role of the Bank
—<i>Kedar N. Kohli and Ifzal Ali</i>, November 1986</p> <p>No. 33 Satellite Remote Sensing in the Asian and Pacific Region
—<i>Mohan Sundara Rajan</i>, December 1986</p> <p>No. 34 Changes in the Export Patterns of Asian and Pacific Developing Countries: An Empirical Overview
—<i>Pradumna B. Rana</i>, January 1987</p> <p>No. 35 Agricultural Price Policy in Nepal
—<i>Gerald C. Nelson</i>, March 1987</p> <p>No. 36 Implications of Falling Primary Commodity Prices for Agricultural Strategy in the Philippines
—<i>Ifzal Ali</i>, September 1987</p> <p>No. 37 Determining Irrigation Charges: A Framework
—<i>Prabhakar B. Ghate</i>, October 1987</p> <p>No. 38 The Role of Fertilizer Subsidies in Agricultural Production: A Review of Select Issues
—<i>M.G. Quibria</i>, October 1987</p> <p>No. 39 Domestic Adjustment to External Shocks in Developing Asia
—<i>Jungsoo Lee</i>, October 1987</p> <p>No. 40 Improving Domestic Resource Mobilization through Financial Development: Indonesia
—<i>Philip Erquiaga</i>, November 1987</p> <p>No. 41 Recent Trends and Issues on Foreign Direct Investment in Asian and Pacific Developing Countries
—<i>P.B. Rana</i>, March 1988</p> <p>No. 42 Manufactured Exports from the Philippines: A Sector Profile and an Agenda for Reform
—<i>I. Ali</i>, September 1988</p> <p>No. 43 A Framework for Evaluating the Economic Benefits of Power Projects
—<i>I. Ali</i>, August 1989</p> <p>No. 44 Promotion of Manufactured Exports in Pakistan</p> |
|--|--|

- Jungsoo Lee and Yoshihiro Iwasaki,
September 1989
- No. 45 Education and Labor Markets in Indonesia:
A Sector Survey
—Ernesto M. Pernia and David N. Wilson,
September 1989
- No. 46 Industrial Technology Capabilities
and Policies in Selected ADCs
—Hiroshi Kakazu, June 1990
- No. 47 Designing Strategies and Policies
for Managing Structural Change in Asia
—Ifzal Ali, June 1990
- No. 48 The Completion of the Single European Community
Market in 1992: A Tentative Assessment of its
Impact on Asian Developing Countries
—J.P. Verbiest and Min Tang, June 1991
- No. 49 Economic Analysis of Investment in Power Systems
—Ifzal Ali, June 1991
- No. 50 External Finance and the Role of Multilateral
Financial Institutions in South Asia:
Changing Patterns, Prospects, and Challenges
—Jungsoo Lee, November 1991
- No. 51 The Gender and Poverty Nexus: Issues and
Policies
—M.G. Quibria, November 1993
- No. 52 The Role of the State in Economic Development:
Theory, the East Asian Experience,
and the Malaysian Case
—Jason Brown, December 1993
- No. 53 The Economic Benefits of Potable Water Supply
Projects to Households in Developing Countries
—Dale Whittington and Venkateswarlu Swarna,
January 1994
- No. 54 Growth Triangles: Conceptual Issues
and Operational Problems
—Min Tang and Myo Thant, February 1994
- No. 55 The Emerging Global Trading Environment
and Developing Asia
—Arvind Panagariya, M.G. Quibria,
and Narhari Rao, July 1996
- No. 56 Aspects of Urban Water and Sanitation in
the Context of Rapid Urbanization in
Developing Asia
—Ernesto M. Pernia and Stella LF. Alabastro,
September 1997
- No. 57 Challenges for Asia's Trade and Environment
—Douglas H. Brooks, January 1998
- No. 58 Economic Analysis of Health Sector Projects:
A Review of Issues, Methods, and Approaches
—Ramesh Adhikari, Paul Gertler, and
Anneli Lagman, March 1999
- No. 59 The Asian Crisis: An Alternate View
—Rajiv Kumar and Bibek Debroy, July 1999
- No. 60 Social Consequences of the Financial Crisis in
Asia
—James C. Knowles, Ernesto M. Pernia, and
Mary Racelis, November 1999

OCCASIONAL PAPERS (OP)

- No. 1 Poverty in the People's Republic of China:
Recent Developments and Scope
for Bank Assistance
—K.H. Moinuddin, November 1992
- No. 2 The Eastern Islands of Indonesia: An Overview
of Development Needs and Potential
—Brien K. Parkinson, January 1993
- No. 3 Rural Institutional Finance in Bangladesh
and Nepal: Review and Agenda for Reforms
—A.H.M.N. Chowdhury and Marcelia C. Garcia,
November 1993
- No. 4 Fiscal Deficits and Current Account Imbalances
of the South Pacific Countries:
A Case Study of Vanuatu
—T.K. Jayaraman, December 1993
- No. 5 Reforms in the Transitional Economies of Asia
—Pradumna B. Rana, December 1993
- No. 6 Environmental Challenges in the People's Republic
of China and Scope for Bank Assistance
—Elisabetta Capannelli and Omkar L. Shrestha,
December 1993
- No. 7 Sustainable Development Environment
and Poverty Nexus
—K.F. Jalal, December 1993
- No. 8 Intermediate Services and Economic
Development: The Malaysian Example
—Sutanu Behuria and Rahul Khullar, May 1994
- No. 9 Interest Rate Deregulation: A Brief Survey
of the Policy Issues and the Asian Experience
—Carlos J. Glower, July 1994
- No. 10 Some Aspects of Land Administration
in Indonesia: Implications for Bank Operations
—Sutanu Behuria, July 1994
- No. 11 Demographic and Socioeconomic Determinants
of Contraceptive Use among Urban Women in
the Melanesian Countries in the South Pacific:
A Case Study of Port Vila Town in Vanuatu
—T.K. Jayaraman, February 1995
- No. 12 Managing Development through
Institution Building
—Hilton L. Root, October 1995
- No. 13 Growth, Structural Change, and Optimal
Poverty Interventions
—Shiladitya Chatterjee, November 1995
- No. 14 Private Investment and Macroeconomic
Environment in the South Pacific Island
Countries: A Cross-Country Analysis
—T.K. Jayaraman, October 1996
- No. 15 The Rural-Urban Transition in Viet Nam:
Some Selected Issues
—Sudipto Mundle and Brian Van Arkadie,
October 1997
- No. 16 A New Approach to Setting the Future
Transport Agenda
—Roger Allport, Geoff Key, and Charles Melhuish
June 1998
- No. 17 Adjustment and Distribution:
The Indian Experience
—Sudipto Mundle and V.B. Tulasidhar, June 1998
- No. 18 Tax Reforms in Viet Nam: A Selective Analysis
—Sudipto Mundle, December 1998
- No. 19 Surges and Volatility of Private Capital Flows to
Asian Developing Countries: Implications
for Multilateral Development Banks
—Pradumna B. Rana, December 1998
- No. 20 The Millennium Round and the Asian Economies:
An Introduction
—Dilip K. Das, October 1999
- No. 21 Occupational Segregation and the Gender
Earnings Gap
—Joseph E. Zveglic, Jr. and Yana van der Meulen
Rodgers, December 1999
- No. 22 Information Technology: Next Locomotive of
Growth?
—Dilip K. Das, June 2000

STATISTICAL REPORT SERIES (SR)

- | | |
|--|---|
| <p>No. 1 Estimates of the Total External Debt of the Developing Member Countries of ADB: 1981-1983
—<i>I.P. David, September 1984</i></p> <p>No. 2 Multivariate Statistical and Graphical Classification Techniques Applied to the Problem of Grouping Countries
—<i>I.P. David and D.S. Maligalig, March 1985</i></p> <p>No. 3 Gross National Product (GNP) Measurement Issues in South Pacific Developing Member Countries of ADB
—<i>S.G. Tiwari, September 1985</i></p> <p>No. 4 Estimates of Comparable Savings in Selected DMCs
—<i>Hananto Sigit, December 1985</i></p> <p>No. 5 Keeping Sample Survey Design and Analysis Simple
—<i>I.P. David, December 1985</i></p> <p>No. 6 External Debt Situation in Asian Developing Countries
—<i>I.P. David and Jungsoo Lee, March 1986</i></p> <p>No. 7 Study of GNP Measurement Issues in the South Pacific Developing Member Countries. Part I: Existing National Accounts of SPDMCs—Analysis of Methodology and Application of SNA Concepts
—<i>P. Hodgkinson, October 1986</i></p> <p>No. 8 Study of GNP Measurement Issues in the South Pacific Developing Member Countries. Part II: Factors Affecting Intercountry Comparability of Per Capita GNP
—<i>P. Hodgkinson, October 1986</i></p> <p>No. 9 Survey of the External Debt Situation</p> | <p>in Asian Developing Countries, 1985
—<i>Jungsoo Lee and I.P. David, April 1987</i></p> <p>No. 10 A Survey of the External Debt Situation in Asian Developing Countries, 1986
—<i>Jungsoo Lee and I.P. David, April 1988</i></p> <p>No. 11 Changing Pattern of Financial Flows to Asian and Pacific Developing Countries
—<i>Jungsoo Lee and I.P. David, March 1989</i></p> <p>No. 12 The State of Agricultural Statistics in Southeast Asia
—<i>I.P. David, March 1989</i></p> <p>No. 13 A Survey of the External Debt Situation in Asian and Pacific Developing Countries: 1987-1988
—<i>Jungsoo Lee and I.P. David, July 1989</i></p> <p>No. 14 A Survey of the External Debt Situation in Asian and Pacific Developing Countries: 1988-1989
—<i>Jungsoo Lee, May 1990</i></p> <p>No. 15 A Survey of the External Debt Situation in Asian and Pacific Developing Countries: 1989-1992
—<i>Min Tang, June 1991</i></p> <p>No. 16 Recent Trends and Prospects of External Debt Situation and Financial Flows to Asian and Pacific Developing Countries
—<i>Min Tang and Aludia Pardo, June 1992</i></p> <p>No. 17 Purchasing Power Parity in Asian Developing Countries: A Co-Integration Test
—<i>Min Tang and Ronald Q. Butiong, April 1994</i></p> <p>No. 18 Capital Flows to Asian and Pacific Developing Countries: Recent Trends and Future Prospects
—<i>Min Tang and James Villafuerte, October 1995</i></p> |
|--|---|

SPECIAL STUDIES, OUP (SS,OUP)

(Co-published with Oxford University Press; Available commercially through Oxford University Press Offices, Associated Companies, and Agents)

- | | |
|---|---|
| <p>1. Informal Finance: Some Findings from Asia
<i>Prabhu Ghatte et. al., 1992</i>
\$15.00 (paperback)</p> <p>2. Mongolia: A Centrally Planned Economy in Transition
<i>Asian Development Bank, 1992</i>
\$15.00 (paperback)</p> <p>3. Rural Poverty in Asia, Priority Issues and Policy Options
<i>Edited by M.G. Quibria, 1994</i>
\$25.00 (paperback)</p> <p>4. Growth Triangles in Asia: A New Approach to Regional Economic Cooperation
<i>Edited by Myo Thant, Min Tang, and Hiroshi Kakazu</i>
1st ed., 1994 \$36.00 (hardbound)
Revised ed., 1998 \$55.00 (hardbound)</p> <p>5. Urban Poverty in Asia: A Survey of Critical Issues
<i>Edited by Ernesto Pernia, 1994</i>
\$18.00 (paperback)</p> <p>6. Critical Issues in Asian Development: Theories, Experiences, and Policies
<i>Edited by M.G. Quibria, 1995</i>
\$15.00 (paperback)
\$36.00 (hardbound)</p> <p>7. Financial Sector Development in Asia
<i>Edited by Shahid N. Zahid, 1995</i>
\$50.00 (hardbound)</p> <p>8. Financial Sector Development in Asia: Country Studies
<i>Edited by Shahid N. Zahid, 1995</i>
\$55.00 (hardbound)</p> | <p>9. Fiscal Management and Economic Reform in the People's Republic of China
<i>Christine P.W. Wong, Christopher Heady, and Wing T. Woo, 1995</i>
\$15.00 (paperback)</p> <p>10. From Centrally Planned to Market Economies: The Asian Approach
<i>Edited by Pradumna B. Rana and Naved Hamid, 1995</i>
Vol. 1: Overview \$36.00 (hardbound)
Vol. 2: People's Republic of China and Mongolia \$50.00 (hardbound)
Vol. 3: Lao PDR, Myanmar, and Viet Nam \$50.00 (hardbound)</p> <p>11. Current Issues in Economic Development: An Asian Perspective
<i>Edited by M.G. Quibria and J. Malcolm Dowling, 1996</i>
\$50.00 (hardbound)</p> <p>12. The Bangladesh Economy in Transition
<i>Edited by M.G. Quibria, 1997</i>
\$20.00 (hardbound)</p> <p>13. The Global Trading System and Developing Asia
<i>Edited by Arvind Panagariya, M.G. Quibria, and Narhari Rao, 1997</i>
\$55.00 (hardbound)</p> <p>14. Social Sector Issues in Transitional Economies of Asia
<i>Edited by Douglas H. Brooks and Myo Thant, 1998</i>
\$25.00 (paperback)
\$55.00 (hardbound)</p> |
|---|---|

SPECIAL STUDIES, COMPLIMENTARY (SSC)

(Published in-house; Available through ADB Office of External Relations; Free of Charge)

1. Improving Domestic Resource Mobilization Through Financial Development: Overview *September 1985*
2. Improving Domestic Resource Mobilization Through Financial Development: Bangladesh *July 1986*
3. Improving Domestic Resource Mobilization Through Financial Development: Sri Lanka *April 1987*
4. Improving Domestic Resource Mobilization Through Financial Development: India *December 1987*
5. Financing Public Sector Development Expenditure in Selected Countries: Overview *January 1988*
6. Study of Selected Industries: A Brief Report *April 1988*
7. Financing Public Sector Development Expenditure in Selected Countries: Bangladesh *June 1988*
8. Financing Public Sector Development Expenditure in Selected Countries: India *June 1988*
9. Financing Public Sector Development Expenditure in Selected Countries: Indonesia *June 1988*
10. Financing Public Sector Development Expenditure in Selected Countries: Nepal *June 1988*
11. Financing Public Sector Development Expenditure in Selected Countries: Pakistan *June 1988*
12. Financing Public Sector Development Expenditure in Selected Countries: Philippines *June 1988*
13. Financing Public Sector Development Expenditure in Selected Countries: Thailand *June 1988*
14. Towards Regional Cooperation in South Asia: ADB/EWC Symposium on Regional Cooperation in South Asia *February 1988*
15. Evaluating Rice Market Intervention Policies: Some Asian Examples *April 1988*
16. Improving Domestic Resource Mobilization Through Financial Development: Nepal *November 1988*
17. Foreign Trade Barriers and Export Growth *September 1988*
18. The Role of Small and Medium-Scale Industries in the Industrial Development of the Philippines *April 1989*
19. The Role of Small and Medium-Scale Manufacturing Industries in Industrial Development: The Experience of Selected Asian Countries *January 1990*
20. National Accounts of Vanuatu, 1983-1987 *January 1990*
21. National Accounts of Western Samoa, 1984-1986 *February 1990*
22. Human Resource Policy and Economic Development: Selected Country Studies *July 1990*
23. Export Finance: Some Asian Examples *September 1990*
24. National Accounts of the Cook Islands, 1982-1986 *September 1990*
25. Framework for the Economic and Financial Appraisal of Urban Development Sector Projects *January 1994*
26. Framework and Criteria for the Appraisal and Socioeconomic Justification of Education Projects *January 1994*
27. Guidelines for the Economic Analysis of Telecommunications Projects *Asian Development Bank, 1997*
28. Guidelines for the Economic Analysis of Water Supply Projects *Asian Development Bank, 1998*
29. Investing in Asia *Co-published with OECD, 1997*
30. The Future of Asia in the World Economy *Co-published with OECD, 1998*
31. Financial Liberalisation in Asia: Analysis and Prospects *Co-published with OECD, 1999*
32. Sustainable Recovery in Asia: Mobilizing Resources for Development *Co-published with OECD, 2000*
33. Technology and Poverty Reduction in Asia and the Pacific *Co-published with OECD, 2001*
34. Asia and Europe *Co-published with OECD, 2003*

SPECIAL STUDIES, ADB (SS, ADB)

(Published in-house; Available commercially through ADB Office of External Relations)

1. Rural Poverty in Developing Asia
Edited by M.G. Quibria
Vol. 1: Bangladesh, India, and Sri Lanka, 1994
\$35.00 (paperback)
Vol. 2: Indonesia, Republic of Korea, Philippines, and Thailand, 1996
\$35.00 (paperback)
2. Gender Indicators of Developing Asian and Pacific Countries
Asian Development Bank, 1993
\$25.00 (paperback)
3. External Shocks and Policy Adjustments: Lessons from the Gulf Crisis
Edited by Naved Hamid and Shahid N. Zahid, 1995
\$15.00 (paperback)
4. Indonesia-Malaysia-Thailand Growth Triangle: Theory to Practice
Edited by Myo Thant and Min Tang, 1996
\$15.00 (paperback)
5. Emerging Asia: Changes and Challenges
Asian Development Bank, 1997
\$30.00 (paperback)
6. Asian Exports
Edited by Dilip Das, 1999
\$35.00 (paperback)
\$55.00 (hardbound)
7. Development of Environment Statistics in Developing Asian and Pacific Countries
Asian Development Bank, 1999
\$30.00 (paperback)
8. Mortgage-Backed Securities Markets in Asia
Edited by S.Ghon Rhee & Yutaka Shimomoto, 1999
\$35.00 (paperback)
9. Rising to the Challenge in Asia: A Study of Financial Markets
Asian Development Bank
Vol. 1: An Overview, 2000 \$20.00 (paperback)

- Vol. 2: Special Issues, 1999 \$15.00 (*paperback*)
 Vol 3: Sound Practices, 2000 \$25.00 (*paperback*)
 Vol. 4: People's Republic of China, 1999 \$20.00 (*paperback*)
 Vol. 5: India, 1999 \$30.00 (*paperback*)
 Vol. 6: Indonesia, 1999 \$30.00 (*paperback*)
 Vol. 7: Republic of Korea, 1999 \$30.00 (*paperback*)
 Vol. 8: Malaysia, 1999 \$20.00 (*paperback*)
 Vol. 9: Pakistan, 1999 \$30.00 (*paperback*)
 Vol. 10: Philippines, 1999 \$30.00 (*paperback*)
 Vol. 11: Thailand, 1999 \$30.00 (*paperback*)
 Vol. 12: Socialist Republic of Viet Nam, 1999 \$30.00 (*paperback*)
10. Corporate Governance and Finance in East Asia:
 A Study of Indonesia, Republic of Korea, Malaysia,
 Philippines and Thailand
*J. Zhuang, David Edwards, D. Webb,
 & Ma. Virginita Capulong*
 Vol. 1: A Consolidated Report, 2000 \$10.00 (*paperback*)
 Vol. 2: Country Studies, 2001 \$15.00 (*paperback*)
 11. Financial Management and Governance Issues
Asian Development Bank, 2000
 Cambodia \$10.00 (*paperback*)
 People's Republic of China \$10.00 (*paperback*)
 Mongolia \$10.00 (*paperback*)
 Pakistan \$10.00 (*paperback*)
 Papua New Guinea \$10.00 (*paperback*)
 Uzbekistan \$10.00 (*paperback*)
 Viet Nam \$10.00 (*paperback*)
 Selected Developing Member Countries \$10.00 (*paperback*)
 12. Government Bond Market Development in Asia
Edited by Yun-Hwan Kim, 2001
 \$25.00 (*paperback*)
 13. Intergovernmental Fiscal Transfers in Asia: Current Practice
 and Challenges for the Future
Edited by Paul Smoke and Yun-Hwan Kim, 2002
 \$15.00 (*paperback*)
 14. Guidelines for the Economic Analysis of Projects
Asian Development Bank, 1997
 \$10.00 (*paperback*)
 15. Handbook for the Economic Analysis of Water Supply Projects
Asian Development Bank, 1999
 \$10.00 (*hardbound*)
 16. Handbook for the Economic Analysis of Health Sector Projects
Asian Development Bank, 2000
 \$10.00 (*paperback*)
 17. Handbook for Integrating Risk Analysis in the Economic
 Analysis of Projects
Asian Development Bank, 2002
 \$10.00 (*paperback*)
 18. Handbook for Integrating Poverty Impact Assessment in
 the Economic Analysis of Projects
Asian Development Bank, 2001
 \$10.00 (*paperback*)
 19. Guidelines for the Financial Governance and
 Management of Investment Projects Financed by the
 Asian Development Bank
Asian Development Bank, 2002
 \$10.00 (*paperback*)
 20. Handbook on Environment Statistics
Asian Development Bank, 2002, Forthcoming
 21. Economic Analysis of Policy-based Operations: Key
 Dimensions
Asian Development Bank, 2003