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HOW CAN SAFETY NETS DO MORE WITH LESS? GENERAL ISSUES WITH SOME EVIDENCE FROM SOUTHERN AFRICA

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ABSTRACT

This paper reviews design features by which safety nets might do more with less. It reviews the current evidence on their success in practice–including three brief reviews of southern Africa experience–and suggests a role for future policy research in furthering the goal of designing safety nets that reduce poverty in a cost-effective way. In doing so, the paper highlights a tension between the large gaps in our knowledge about the design of safety nets and the demand for short-run answers in this area.

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1. INTRODUCTION

There is now a widespread consensus on the importance of "safety nets" as a key component of a public policy poverty reduction strategy (World Bank 1990; Graham 1994; van de Walle and Nead 1995). Safety nets are comprised of policy and program instruments such as general food subsidies, targeted income transfers, public works, school feeding, social funds, and small-scale credit. They are designed to reduce poverty and to protect the income entitlements of particularly vulnerable groups during times of severe stress.[1]

Several trends underlie an increased need for safety nets. The populations of the developing world are aging and more individuals will rely on transfers as old-age security. Urbanization places stress on kinship networks and the subsequent ability of families to play an insurance and assistance role for vulnerable members of their families. Finally, many countries are still undergoing a rapid transformation due to political and economic reform policies that simultaneously creates further demand for safety nets in the short and medium run and places a ceiling on the funding available to them in the short run. Clearly, the growth of resources available to safety-net implementation cannot match the growth in need. Against this background is heard the call for safety nets that "do more with less."

Beyond the notion that "targeting is good," however, the issue of how to design safety nets that do more with less remains very much open (Besley and Kanbur 1990; Ahmad 1991; Subbarao, Braithwaite, and Jalan 1995; van de Walle 1995). This paper addresses policy questions in this general class. Specifically, it reviews design

[1] Although they are not restricted to poverty as the only outcome of interest (see throughout this paper and Section 2.2.1.3 in particular).

features by which safety nets might do more with less, reviews current evidence on their success in practice–including three brief reviews of southern Africa experience, and suggests a role for future research in furthering the goal of designing safety nets that reduce poverty, food insecurity, and malnutrition in a cost-effective way.

This paper does *not* discuss the bigger issue of the appropriate balance of public spending among activities related to safety nets provision, general social service provision, and the stimulation of economic growth.[2] This important question is the subject of a related, but separate, body of work.[3] This paper takes as given the envelope of spending allocated to safety net programs, and asks how can these resources be reallocated–both between safety net programs and within a given safety net program–so as to have a greater impact on poverty, food insecurity, and malnutrition at current or reduced expenditure levels.

1.1 WHAT IS A SAFETY NET?

In the broadest sense of the term, safety nets are synonymous with social security. The term "social security" encompasses a wide variety of social insurance and social assistance policies and programs in both public and private sectors.[4] Figure 1 outlines two principal dimensions of social security services and characterizes these policies and programs in terms of their main objective (insurance or assistance) and the nature of the institutions providing them (public or private).

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[2] The latter typically being agriculture-led in developing countries.

[3] A summary of this literature is provided by Barro and Sala-I-Martin (1995).

[4] The prefix "social" connotes cooperative action (Lal 1994).

Figure 1 Dimensions of social security

	Private Provision	Public Provision
Insurance Function	Pensions Health care Unemployment insurance Inter- and intrafamily transfers - gifts, remittances - (reciprocal) informal consumption credit	Pensions Health care and health insurance Unemployment insurance
Assistance Function	Interfamily transfers Intrafamily transfers Voluntary contributions	Child allowance General consumer subsidies Public works Credit schemes Cash transfers Social funds Relief programs

Note: Here, public includes governments, NGOs, and community-based organizations; private refers mainly to individuals, households, and markets.

Social insurance services typically include pensions, health and education services, various insurance markets, and unemployment benefits. In the more developed countries, these are provided in both private and public sectors. In less-developed countries, these insurance schemes tend to be restricted to those employed in the formal sector–whether private or public, typically excluding households and individuals at the bottom end of the income distribution. Individuals unable to access formal-sector insurance rely on a range of coping strategies to pool and manage risk, such as migration, reciprocal and state-contingent exchange of gifts and loans, and diversification of income sources within and between households. Social assistance

programs in the public sector range from the relatively untargeted and long-term (general food price subsidies) to the highly targeted and short-term (feeding in emergency relief situations). Private strategies include inter- and intrafamily transfers and the formation of new community organizations.

The assistance function of social security systems typically covers those who have incomes below the poverty line. Assistance can take many forms. It can be aimed at (1) increasing availability of physical capital used by the poor (e.g., schools, water wells, etc.), (2) increasing human capital, including combating malnutrition (e.g., by free primary education, school feeding programs, income transfers to increase the purchasing power for essential food/nonfood inputs into good nutrition), or (3) supporting maintenance or formation of social capital (subsidies and tax exemptions for charity organizations, subsidies for formation of credit groups or community-based child care centers). The assistance function of social security policy aims therefore at improving the livelihood of those who lack entitlements and resources for an active and health life. The assistance in developing countries is often of a temporary nature; for example, it is given in response to the occurrence of a drought, flood, war, and other covariate risks. Assistance may or may not include development-oriented components that aim to permanently uplift people out of poverty, i.e., to provide poor people with physical, human, and social capital so that they are able to sustain themselves after the assistance ceases. Pension schemes, for example, target those who lack, in general, the human capital to sustain themselves on a permanent basis: the goal is therefore not to enhance the income-generating capacity of pensioners, but just their income. On the other hand, vocational training programs for the unemployed, or credit programs for agricultural and off-farm microenterprises, aim to increase the productive capacity of the poor for the generation of increased future incomes.

The insurance function of social security either aims at (1) securing the productive capital (physical, human, social capital) available to vulnerable members of society, or at (2) securing a share or all of the income stream generated by this capital. Health insurance is an example of the first subset, i.e., protecting stock of capital, since it allows the financing of medical expenses to restore human capital. If such health expenditures are unsuccessful in recovering the human capital, the second function of insurance is called for, i.e., the provision of a minimum income, for example, in the case of permanent illness and disablement or old age. Note that the insurance function is quite broadly defined, and covers all forms of capital. However, the insurance function of social security systems is, in practice, mostly confined to protecting people against risks that jeopardize the stock or the productivity of their human capital, but not their physical or social capital. The insurance of physical capital, for example, fire insurance, is generally not viewed as part of social security, although many governments recognize the social security implications of this risk by requiring home owners to insure themselves against risks that can wipe out their life-time savings. Another example of insurance for securing the stock of physical capital is drought and flood insurance in agriculture. These types of insurance are typically not seen as part of social security systems, although their aim is to provide support to households in case of covariate risks. Following this, the insurance function of social security systems is usually restricted to protecting the stock or productivity of human capital.

Since the distinction between the insurance and assistance function of social security systems sometimes becomes blurred, as it is, for example, with pensions, it is useful to highlight some unique features of the two functions. A first distinction is that insurance covers the occurrence of certain idiosyncratic (disease, old age, unemployment, pregnancy), or covariate risks (unemployment, drought, crickets, epidemics, etc.). Thus, assistance through insurance is only provided if certain

pre-specified and insurable risks materialize. Second, insurance does not aim to uplift people, i.e., to increase their capital or income, but, rather, secures the status quo, i.e., what the insuree has disposed over before she entered the explicit or implicit (informal) insurance contract. Bluntly speaking, there exists no public or private insurance service for getting richer, i.e., moving out of poverty. Assistance, on the other hand, aims at improving living conditions of the poor, either through income transfers of a permanent nature (e.g., pensions) or of a temporary nature (e.g., relief food), or through enhancing the stock of human, physical, and social capital available to the poor for augmenting their future incomes (e.g., credit, primary education, adult literacy, vocational training, distribution of production inputs, formation of community-based self-help institutions). Third, the insurance function of social security systems usually only protects the stock or productivity of human capital against risks of a temporary nature (e.g., sickness, unemployment) or a permanent nature (disablement, old age). This is contrary to the assistance function, which also encompasses the support of physical and, increasingly so, social capital.

Public safety nets comprise some subsets of the insurance and assistance functions of social security, depending on the objectives of the safety net. Most often, safety nets in developing countries are primarily oriented towards performing an assistance function, although exceptions exist, such as implicit government insurance for victims of natural disasters and epidemics.

1.2 MAKING CHOICES IN SAFETY NET DESIGN

In order to design safety nets that maximize initial (first-round) and subsequent (second-round) poverty impacts, it is necessary to understand how the cost and benefit schedules of different programs vary by design feature. Take, for example, one key design feature of a safety net program: its ability to target the poor and only the poor.

Targeting is at the heart of many choices about safety net design. Specifically, there is the notion that a safety net scheme that is targeted, based on some correlate of poverty, can have a bigger poverty reduction effect for a fixed sum of resources than a scheme that is not targeted. Targeting is achieved either through (1) indicator-contingent eligibility (a community or household or individual is eligible to participate in a safety net due to low income or some other indicator of poverty such as natural resource base, no landholding, female headedness, or disability) or (2) self-targeting (targeting is achieved through some behavior that is associated with the poor, such as consumption of a low-income elasticity food, or working for low wages). In a world where targeting is costless, a targeted program will achieve greater poverty reduction at a given budget than a nontargeted program. Targeting does, however, incur costs.

As the program chosen (for example, a public works scheme) becomes more finely targeted (for example, through stricter work requirements), its poverty reduction impact increases as resources are concentrated in the hands of those who need them the most. In a costless world, and for a given budget, the targeted program will outperform the untargeted one in terms of poverty reduction, over a certain range of targeting fineness. However, there are many factors on the cost and benefit side–several that are not easy to measure–that vary by safety net program and by the design features within that program. Each safety net component program will have its own schedule of costs and benefits that will vary across design features such as targeting fineness. The choice of which program to select (the one that achieves maximum poverty reduction for a given level of program resources) and which targeting fineness to opt for will be very sensitive to these cost and benefit schedules. At the optimal level of targeting (which may be no targeting at all), the marginal cost of targeting equals the marginal benefit of targeting.

Consider the cost side first. Costs borne by the program include (1) administrative costs associated with indicator screening, (2) administrative costs associated with delivery mechanisms, and (3) costs associated with monitoring. Additional costs are borne by eligible individuals (both participating and nonparticipating), (4) costs of participation in terms of foregone income generation, and (5) costs in terms of nonparticipation of the eligible due to stigma-related reasons. Finally, some costs are borne by society in general: (6) private responses that ameliorate the initial impact of public transfers, (7) negative externalities borne by the non-eligible, and (8) political costs in terms of the sustainability of the program and the potential reduction of political stability due to the exclusion of the middle class.

Against these costs are the gross benefits generated by the safety net. For the participant, gross benefits are comprised of (1) initial poverty impact, and (2) second-round benefits. For society, the benefits include (3) private responses that enhance the initial impact for nonparticipants and (4) positive externalities.

1.3 OUTLINE OF THE PAPER

Section 2 of the paper reviews what the literature has to say about the magnitude of the preceding categories of costs and benefits and how they vary by safety net design. In doing so, many policy questions are raised along with the research questions they imply. Section 3 summarizes conclusions from section 2 around three key policy research areas: (1) How can existing safety nets deliver a greater *initial* impact per unit of program resource? (2) How can safety nets play more of a role in leveraging sustainable economic growth without impairing their primary assistance role? (3) How can safety nets be designed so as to not crowd out private informal assistance mechanisms and, in fact, to build upon them? Section 4 highlights various aspects of the general discussion in Sections 2 and 3 by drawing, briefly, on three country-specific examples from southern Africa. Section 5 concludes.

2. SAFETY NET DESIGN COSTS AND BENEFITS

2.1 COSTS

This section provides a brief overview of the literature with regard to the costs associated with safety net programs and how they relate to key design features, such as targeting. The first three categories of costs refer to the more traditional concepts of program costs, those incurred net of transfer resources. These costs tend to be labeled as "administrative costs" and are typically associated with the administration and management of screening, delivery, and monitoring systems. The remaining two groups of cost categories refer to costs incurred by the eligible population and costs incurred by society in general.

2.1.1 Administrative Costs Associated with Screening

Effective screening can be expensive. In the case of indicator targeting, administrative mechanisms have to be in place to collect data on potential program participants to ensure appropriate entry into a program. In addition, data have to be collected on active participants to ensure appropriate program exit. Moreover, if the program is of the nature of an entitlement (available to anyone meeting the eligibility criteria), data have to be collected on nonparticipants to estimate the coverage (percentage of the eligible population in the program) of the program. The case for screening is highlighted by the Food Stamp program operating in Sri Lanka in the 1980s. Eligibility was determined by household size and earnings. Many households remained in the program even after they had ceased to qualify, crowding out households that became eligible after the program was established (Besley and Kanbur 1990).

Screening requirements are lower for self-targeted programs (although self-targeted programs often have some additional indicator screening built in), but assessment as to whether the program actually does self-target the poor is a call on

administrative resources. Evidence on the magnitude of these costs from Sub-Saharan Africa is thin, partly due to a lack of established transfer programs in the region relative to Latin America and Asia, and partly due to these programs being underresearched.

Latin America is the region with the best sources of data from real programs on cost screening. Grosh (1995a) reviews a wide range of screening mechanisms (in programs ranging from soup kitchens to social funds to pensions) and finds the costs of screening to be remarkably constant across programs in terms of the percentage of total program costs (between 6 and 9 percent). This result goes against conventional wisdom, and the context-specific nature of the programs makes it difficult to have much confidence in the generalizability of the results outside the region.

2.1.2 Administrative Costs Associated with Delivery

Grosh (1995a) does not, however, calculate the costs of acting upon screening information in terms of benefit delivery and the lost benefits due to the exclusion of former recipients–both below and above the poverty line, although she does argue that delivery costs may be minimized by adding a targeted program to an existing welfare infrastructure.

Horton's (1992) review of the cost-effectiveness of a range of nutrition interventions in the developing world highlights the need for much more detailed cost information on the administrative costs associated with delivery (especially in Sub-Saharan Africa). In particular, she notes that the traditional breakdown of costs into "food" (or transfer) costs and "nonfood" (or nontransfer) costs is not particularly helpful. Costs to "nonfoods" are difficult to interpret because they can be due either to high administrative costs or the provision of complementary inputs such as nutrition education at a food delivery site. A high proportion of program costs

allocated to "food" (or the transfer) is difficult to interpret, too, because a large proportion of the food (or transfer) may be going to the nontarget group.

In general, the literature notes that administrative cost data matter for program effectiveness, and that costs are based on choices. Why, then, have there been so few studies looking into cost issues? First, it may be difficult even for program administrators to break down costs in ways that are useful for analysts. Second, administrative cost data constitute sensitive information–politically and personally. Third, the failure to collect and analyze such data may reflect the lack of partnership between busy program managers and less-operationally-inclined researchers.[5]

2.1.3 Administrative Costs Associated with Monitoring

Monitoring poverty- and malnutrition-related outcomes is expensive, and resources need to be allocated to it in a conscious way. One of the reasons given by food and nutrition program managers for poor monitoring of poverty, food security, and nutrition is difficulty using conventional indicators (Kennedy and Payongayong 1992). Two IFPRI studies from India and Ethiopia, respectively, represent an effort to develop methodologies to reduce the administrative costs of identifying and using indicators of poverty, food insecurity, and malnutrition (Chung et al. 1996; Webb et al. 1994).

The Ethiopia research uses classification and regression tree analysis (CART) to identify indicators of poverty and food insecurity at the district level. To conceptualize this approach, think of a medical model for a triage system that sets priorities for intervention. In fact, the model is adapted from a model developed in

[5] The nutrition field seems to be taking a lead in terms of forging partnerships. There is a sense that a lack of knowledge about how to improve nutrition status is not the key constraint to program impact. Rather, it is the lack of management capacity, training, and more operational types of information that are the binding constraints (Berg 1987).

California by emergency room doctors. The California model assesses who is most at risk through a series of indicators such as age, weight, and blood pressure. These indicators determine the likelihood of survival and suggest a course of treatment. In adapting the model for famine-prone areas, indicators of famine vulnerability in Ethiopia were identified. Results indicate that areas that face high prices of crops relative to livestock, that lack roads, and have a high variation of the vegetation index are at risk of famine and are probably less well-equipped to take advantage of any systematic intervention that would prevent famine.

At the household and village level, the research in India was geared to making poverty and food insecurity alleviation projects more results-oriented. This meant the development of indicators of outputs as a complement to the more straightforward input indicators. The study compared the performance of poverty and food insecurity indicators from conventional surveys, pared-down rapid surveys, and participatory appraisal methods. In terms of their ability to track poverty and food insecurity, the study found that the rapid survey and participatory indicators performed almost as well as the more conventional survey indicators, but were easier to collect. In addition, the participatory methods proved more flexible than conventional survey methods, more respectful to local knowledge, better for establishing rapport between investigators and villagers, and more promising for nutrition education purposes.

The above two case studies were research-only efforts. The International Food Policy Research Institute (IFPRI), together with the International Fund for Agricultural Development (IFAD), is attempting to adapt these research tools for operational use in targeting IFAD poverty alleviation projects to have a greater nutrition impact.

2.1.4 Costs of Participation in Terms of Foregone Income Generation

Participation costs, together with the following category on stigma-related costs, are not borne by the implementing agency, but are borne primarily by participating and eligible, but nonparticipating, individuals.

Targeted programs, and self-targeted programs in particular involve costs of participation. The poor's time has an opportunity cost–either in terms of other income-earning activities, domestic activities such as child care, or the rest necessary to be productive at a later time. Self-targeting mechanisms often rely on the concept that the poor's opportunity cost may be lower than that of the nonpoor, hence they will be more prepared to wait in line for long hours, or travel long distances, or work for a lower wage. This may be true (although the evidence is not overwhelming, see Alderman 1991), but the targeting is achieved at a cost in terms of foregone income earning, foregone child care, or foregone rest. Assuming rationality and adequate information, the benefits to the household participating in the program will be greater than these costs, but will they be greater than those delivered by a nontargeted or universal program with an equivalent budget?

This is precisely the question asked by Ravallion and Datt (1995) of the Employment Guarantee Scheme (EGS), a large public works program in Maharashtra. This is the only study of its kind that measures the costs of participation in a self-targeting employment program. The study finds that the opportunity cost of participation by the poor in the program are one quarter of the gross wage earnings of the scheme. However, despite the good targeting performance of the EGS in attracting those with low or no wage opportunities, the costs of participation in terms of foregone income make the poverty impact of the scheme no greater than that of an untargeted transfer. The costs of participation in terms of the opportunity cost of time are most obvious in safety nets that have a work requirement, but may be substantial in programs where long waiting and travel times are the norm.

Ravallion and Datt are careful not to overinterpret their results, and supply a number of caveats. First, the untargeted transfer is a *hypothetical* benchmark that is unattainable in practice and if it could be attained, it might generate administrative and incentive costs of its own. Second, they estimate that the indirect benefits of the program–in that it improves rural wages through raising the demand for rural labor, and it generates assets and infrastructure that have value to the poor and nonpoor–would not have to be very large (40 percent of the project cost) to tip the balance in favor of the employment scheme. The exact size of these second-round effects and whether they can be built into other safety net programs are important research areas and are discussed in Section 2.2.

2.1.5 Costs in Terms of Nonparticipation of the Eligible Due to Outreach Failures and Stigma

Often, individuals are eligible for a safety net program, but they do not participate in it. This could be because the program is poorly designed (for example, a food could be subsidized that the poor do not consume, or a wage could be set so low in a public works scheme that it is below virtually everyone's opportunity cost of time). Other reasons for nonparticipation include lack of knowledge about the safety net's existence, lack of knowledge on eligibility, high transaction costs (such as ease of completing application forms, either due to illiteracy or complexity of forms), and stigma associated with participation.

Nonparticipation is an issue that has been studied more in the developed world, especially in the United Kingdom and the United States, but will likely become a growing issue in the developing world as programs become more targeted and eligibility criteria become more complex. In the United Kingdom, estimates of take-up rates of social assistance programs range between 50 and 60 percent (Atkinson 1995). For the U.S. Food Stamp Program, Levedahl (1995) analyzes take-up rates for

eligible households that were targeted by outreach programs and those that were not. He concludes that participation rates were increased by up to 18 percent due to the outreach program (from 59 percent to 69 percent uptake). Other evidence from the United States indicates that take-up rates are importantly affected by institutional arrangements. The Women, Infants and Children (WIC) program is a food and health care program targeted to pregnant and lactating mothers, infants, and children (using an income-based means test). Haddad and Willis (1991) found that site delivery characteristics such as opening hours, the frequency of radio outreach broadcasts, and the number of staff speaking more than one of the recipient languages to be significant factors in encouraging early enrollment of pregnant women into the program, controlling for individual characteristics such as age, education, and number of previous pregnancies.

Stigmatic concerns are also important, but careful social marketing and sensitivity to this issue at the point of delivery can minimize their impacts. In Mexico, for example, a recently piloted method for subsidizing food (the credit card scheme) has transformed the perception of the subsidy from a government handout into an asset to be used in whichever retail outlet is most successful in enticing holders to use their subsidy in-store (*The Economist* 1996).

In general, the less widely distributed the transfer, the larger one would expect the stigma costs associated with non-uptake to be, either due to heightened sensitivities about stigma, or due to more complex and time consuming form-filling.

2.1.6 Private Responses that Ameliorate the Poverty Reduction Impact of Programs

One of the least studied, but potentially most important, factors affecting the impact of transfer programs is (1) the way in which the impact of transfers are ameliorated by private responses, and (2) the way in which private responses are ameliorated by public transfers. The first set of responses drives a wedge between the

intent and impact of a public transfer due to a private response. The second set of responses is undermined by the public transfer. This section will discuss the negative consequences of private responses in terms of poverty reduction foregone, and a later section will discuss the positive consequences.

An example of the first set of responses is the food transfer to the child that gets distributed away from the child to the rest of the household. Consider a meal program in schools where girls are recorded as being particularly undernourished. The success of this intervention cannot be ascertained in the absence of information on the pattern of food allocation among household members. Households might respond to this program by reducing the amount of food girls receive at home (and increasing the amount of food consumed by other household members). Understanding the existing patterns of intrahousehold allocation of food is important in determining the effectiveness of such policy interventions (Haddad and Kanbur 1993). Other examples of private responses that blunt the impact of a public transfer include Sahn and Alderman's (1995) work in Sri Lanka. They find that the food stamp scheme resulted in a two-to-three-day reduction in labor market participation per month, approximately one-third of the value of the original food stamp subsidy.

An example of the second set of responses is the safety net program that is introduced and crowds out a well-functioning private safety net (see Cox and Jimenez 1995; Cox and Jakubson 1995). The following hypothetical example illustrates this feature. Consider a family with young members residing in towns and old members living in rural areas. Transfers are made by the “young” to the old, and individual consumption is a function of aggregate income. Suppose a social security program is introduced that taxes the young and subsidizes the old, leaving aggregate income unchanged. This might well lead to a reduction in urban to rural remittances, with consumption of individual members unchanged. This example begs the question: should public action undertake what private action can well accomplish? Using the

standard arguments for and against public intervention, one would have to argue, no. However, when applying that rule in the context of private safety nets, we should be clear about how well private safety nets work. Do they cover the same set of individuals that a public system can (for example, can family members that are unable to reciprocate, such as the disabled, depend on transfers from other family members?), and can private safety nets manage covariate risk (for example, can interhousehold food and income sharing within a village cope with village-specific shocks such as drought or civil unrest?).

The lessons for the design of public safety nets are (1) to understand existing private safety nets–the biggest impact of a public safety net will be for those not well served by existing private safety nets, and (2) to try to build on features of private safety nets that promote positive impacts. For example, women are generally thought to be a key factor in the attainment of household food security and nutrition (Quisumbing et al. 1995). Safety net programs that target women–either directly or indirectly through payment in food commodities–will likely have a larger food security and nutrition impact than programs that do not target women (although they may also be administratively more difficult to manage).

2.1.7 Negative Externalities

It is not clear whether the more targeted a safety net program, the more negative externalities it will generate. One can imagine universal transfers that create negative externalities (a food price subsidy that drains public resources from other development activities) larger than those generated by targeted transfers. However, negative externalities are generated by targeted programs and the assessment of a safety net must be aware of them. Two examples of potential negative externalities include (1) the food distribution scheme tied to school participation (such as the Food for Education program in Bangladesh [Ahmed 1993]) that may encourage school

participation to the point that pre-program enrolled students have to cope with larger class sizes and teachers that are distracted by having to help administer a food distribution program, and (2) geographical targeting that encourages migration to the targeted areas and increases competition for access to existing services for the pre-program residents.

2.1.8 Political Costs in Terms of the Sustainability of the Program

The "optimal" design of a program may not primarily depend on technical considerations, but rather on political considerations. So far, this discussion of the costs has ignored the political feasibility of safety net design. A program that is designed and implemented in a political vacuum may well end up hurting the poor. Optimal poverty reduction will probably be achieved by a program that gives something to the nonpoor, because the latter are politically powerful. In Sri Lanka, for example, when food stamps became targeted in 1987, their real value was allowed to fall and it was difficult for the poor to mobilize against this. The nontargeted groups (i.e., the nonpoor) had fewer incentives to maintain the value of the food stamps. In the process of becoming targeted, the program became less effective as far as the poor were concerned (Anand and Kanbur 1990). Graham (1994) and Pinstrup-Andersen (1993) have stressed the importance of these political economy issues and have laid out potential research agendas, but few have stepped up to the challenge.

2.2 GROSS BENEFITS

The accurate measurement of the gross benefits (to recipients and to society) of safety net programs is complex. First, it is not straightforward to measure initial impacts due to program-specific effects. Second, just as private responses can ameliorate initial impacts, they can also accentuate them. Third, just as negative externalities can be generated by safety net programs, so can positive externalities.

2.2.1 Initial Poverty Impact

Obtaining an unbiased estimate of the initial poverty impact of non-universal programs is complicated by the fact that individuals choose to participate in them and public agencies choose where to locate the programs. The economics profession's response to the first issue has been to (1) improve econometric modeling in the area of selectivity, and (2) explore the possibilities afforded by experimental randomized field trials (Burtless 1995; Heckman and Smith 1995). The profession's response to the second issue has been to highlight the need for area-level panel estimation (Pitt, Rosenzweig, and Gibbons 1995). Further complications arise when considering (1) safety net programs that have objective functions other than explicit poverty reduction, and (2) the interplay between different safety net programs and policies.

2.2.1.1 Sample Selectivity and Randomization. Sample selection bias occurs when the unobservable factors causing an individual to join a program may also affect the outcome that the program is trying to influence. This can lead to conclusions about program impacts that are biased. Econometric developments to account for sample selection bias are too numerous to mention here; suffice it to say that the work continues along the lines Heckman established 20 years ago (Heckman 1990).

Recently, an alternative to econometric modeling has been espoused by economists, namely randomized field trials. Here the problem of selectivity is removed (at least in theory) by a random allocation of eligible participants into a program and nonprogram group. In practice, several issues make randomization less attractive. There are several difficulties: (1) exclusion (the subsidized food may be shared with non-eligible participants), (2) agreement and compliance by implementors (often the implementing agency officials find it hard, for various reasons, to deny the receipt of transfers to those randomly nonselected), (3) participation–randomization works best when there is 100 percent participation of those selected to participate, and

(4) ethical issues that economists and implementors are not used to working though. Moreover, randomized experiments represent a black-box approach to policy research. For example, Heckman and Smith (1995) state (p. 108):

> the existing regime of self-contained black-box experimental evaluations...contributes next to nothing to the cumulative body of social science knowledge regarding program participation processes, earnings, wage and employment dynamics or program operation. In fact, simple black box evaluations pose a serious threat to the accumulation of knowledge about the behavior of persons and institutions. Because they are not conducted within a behaviorally coherent framework of analysis, the evidence from experiments does not cumulate. The end result of a research program based on experiments is just a list of programs that "work" and "don't work," but no understanding of why they succeed or fail.

Burtless (1995) is more optimistic (p. 82):

> Potential benefits (from a randomized experience) are clearest when the focus of the study is narrow, as is the case when the government wishes to determine whether a particular current policy is effective, or whether a small variation in policy would yield better results. Potential benefits from an experiment are much less obvious when the object of the study is to improve basic knowledge about basic parameters.

Clearly, whenever the potential exists for working with policymakers in the design of safety net pilots, randomized experimentation should be considered as an impact assessment tool.

2.2.1.2 Endogenous Program Placement. If a government or a nongovernmental organization (NGO) can successfully use geographical targeting to place a nutrition program in an area of high undernutrition or a poverty-reduction program in an area of low incomes, a cross-section evaluation of the impact of that program may conclude that the program actually increases malnutrition or poverty, when the opposite may be true. Pitt, Rosenzweig, and Gibbons (1995) work with Indonesian data adds to the work of Rosenzweig and Wolpin (1986) on endogenous program placement. The extensive data requirements of this type of analysis has restricted the number of published studies of endogenous program placement. Specifically, data are needed for at least two points in time on program characteristics: outcomes of program effects, and the characteristics of geographical areas that prompted governments and NGOs to place programs there in the first place. The results of Pitt, Rosenzweig, and Gibbons (1995) are striking. Reliance on cross-section data underestimates the impact of proximity to grade school on schooling outcomes by 100 percent compared to estimates using two cross-sections.

2.2.1.3 Other Objective Functions. Not all safety nets have poverty reduction as an explicit or implicit objective. This will complicate the comparison of gross benefits across programs considerably. Many safety net components, for example, have undernutrition reduction as a primary objective. Undernutrition exists at all age groups, but the consequences of undernutrition are most profound for the 6-24 month age group (Martorell 1993). This simplifies targeting issues, but makes comparisons with poverty reduction programs extremely difficult, given the complicated relationship between income and nutrition (Strauss and Thomas 1995).

2.2.1.4 Safety Net Program Interactions. A further complication in across-program benefit (and cost) comparisons is understanding the interplay between different safety net component programs. This interplay can manifest itself in both participation (a

food subsidy program that causes poor women to wait for long hours for the right to purchase cheap food will take away from time that she could be spending in a credit program) and in impact (participation in a pubic works scheme could serve as collateral for the receipt of micro-credit). The nature and importance of these portfolio interactions is poorly understood, but the synergies are likely to have an important bearing on the costs and benefits of safety net design.

2.2.2 Private Responses that Enhance the Initial Impact

Untargeted and targeted programs to reduce poverty have, to a greater or lesser extent, poverty-reducing impacts that go beyond the initial poverty reduction. Any program that increases incomes will, depending on the level of integration of input and output markets, lead to income generation in other sectors due to backward and forward demand linkages (see Delgado et al. 1994 for a summary of this literature).

This section (1) describes some of these so-called second-round effects (Grosh 1995b calls them "collateral effects"), and (2) explores the desirability and feasibility of enhancing the magnitude and sustainability of these second-round effects while maintaining the cost-effectiveness of the first-round poverty-reducing effects. This second question involves a discussion of the *types of activities* that exhibit the greatest potential when it comes to building second-round (or development) goals into first-round (or relief-type) poverty impacts and a discussion of the *types of institutional arrangements* that are most conducive to generating sustainable second-round effects.[6]

2.2.2.1 Choices about Activities to Enhance the Initial Impact. Types of second-round effects include (1) the creation of assets such as skills and physical infrastructure that the poor can capture the benefits of, (2) an increased ability of the

[6] In particular, the potential for engineering a greater development orientation from a relief-oriented program has generated much debate in the food aid/disaster prevention, mitigation, and relief literatures (see Puetz, Broca, and Payongayong 1995; Buchanan-Smith and Maxwell 1994).

poor to bear risk, (3) the reduction of transactions costs for participation in other programs, and (4) the empowerment of certain types of household individuals. All of these second round effects will be magnified through linkage effects whenever markets function well.

In terms of the first category of second-round impacts, Ravallion and Datt (1995) have already described the potential for public works/workfare schemes, such as Maharashtra's Employment Guarantee Scheme, to generate socially useful infrastructure such as irrigation, roads, and boreholes. This argument has also been made for public works in Sub-Saharan Africa by von Braun (1995). While plausible, the magnitude of these effects remains unclear. What is clear is that public works schemes have choices as to the type of infrastructure constructed and that the development impact of these will depend on the choice taken. Marc et al. (1995) also note the potential of social funds, an important component of many safety nets, for building up capacity in local institutions and beneficiaries. In turn, the role of strengthened decentralized capacity in making Malawi's drought management program effective is documented by Babu and Mthindi (1995).

The second category of second-round impacts refers primarily to microcredit schemes. These schemes permit the poor, who typically do not have access to formal credit sources, to smooth consumption (thus mitigating the need to sell off productive assets to cope with shocks), and to bear more risk in terms of new productive activities (thus stimulating income generation) (Zeller 1994).

The third category is illustrated by the work of Pitt, Rosenzweig, and Gibbons (1995), the argument being that the participation in one type of targeted program may help to stimulate participation in other targeted programs. For example, for Indonesia, Pitt, Rosenzweig, and Gibbons conclude that health clinics had a positive impact on school attendance, net of the presence of schools for adolescent girls.

The fourth category is suggested by the work of Schuler and Hashemi (1994), Goetz and Sen Gupta (1994), Pitt and Khandker (1994), and Alderman et al. (1995),

with particular reference to women. The participation of women in certain targeted interventions not only can increase the resources they have control over and thereby improve household food security and nutrition over and above household income effects, it also increases a woman's decisionmaking ability within the household. This can lead to an improved ability to make and effect decisions about, for example, family planning and education.

Clearly the activities that exhibit the greatest potential for maximizing the second-round effects are related to the development of assets, skills, entrepreneurship, and institutions that encourage sustainable community development. Public works schemes and credit/microenterprise schemes seem to have great potential in this regard. However, the temptation to load too many objectives into one intervention should be resisted. The pursuit of multiple objectives involves trade-offs, and the policymaker should be wary of programs that claim strong first-round and second-round effects. In short, we need to know more about the economic and political economy trade-offs inherent in the pursuit of these multiple objectives within a safety net program. For example, when can emergency water provision from monetized food aid also become a community-based water project?[7]

2.2.2.2 Choices about Institutional Arrangements that Enhance the Initial Impact. The way in which an activity is organized may be more important in generating second round effects than the particular activity chosen. Which institutional arrangements show the most promise in maximizing second-round effects? Institutional approaches that show promise include (1) beneficiary participation, (2) community-led initiatives, (3) safety nets that engage NGOs.

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[7] Another important information and analytical gap to fill is understanding when to try to make food aid work for food security within a single project, as opposed to within a portfolio of projects (Puetz, Broca, and Payongayong 1995).

Research on whether the design of safety net programs takes into account the preferences of beneficiaries is rare. One example comes from a review of public works programs in Ethiopia by Webb et al. (1994). The study concludes that while most public works projects are based on soil conservation or reforestation objectives, these activities are among the least desired by the participants themselves. The study finds that the participants most desire public works projects that are related to health and sanitation, such as health clinic construction, piped water, and latrine building. On the other hand, the payoff to beneficiary participation has been poorly measured. One of the first studies to address the question as to whether participation improves performance is by Isham, Narayan, and Pritchett (1995). Using a range of performance indicators for 121 rural water projects from 49 countries, Isham, Narayan, and Pritchett (1995) find econometric evidence that participation of beneficiaries (based on indicators from consultation and shared decisionmaking to exclusive participant decisionmaking) is strongly correlated with project performance. In conclusion, they note that this result may not hold outside of the water sector, that it is not clear how policy can provide incentives to stimulate participation, and it is not clear as to whether the benefits of participation outweigh the costs.

Community-level solutions to nutrition interventions are a strong component of the consensus approach (promulgated by UNICEF among others) to overcoming undernutrition. Indeed, most successful nutrition interventions feature strong community participation in the assessment, analysis, and action approach to nutrition interventions (ACC/SCN 1991). This raises several questions: (1) how effective is this approach compared to the more administrative top-down approaches to safety net design? and (2) how can community-level approaches be aggregated or scaled up?

An examination of the operation of social funds might shed some light on the first question. Social funds are usually established by governments as special initiatives that "fill an institutional gap" (Marc et al. 1995) in terms of established bureaucracies being unable, at least temporarily, to deal with an urgent safety net

issue, typically associated with economy-wide transformation such as structural adjustment. Social funds are usually set apart from the existing bureaucracy and are typically set up to fund local organizations such as local government, NGOs, and other community-based organizations. They aim to be demand driven, flexible, rapid in the disbursement of funds, and transparent in operation. Their operation involves trade-offs. First, the demand-driven nature of the approach mitigates against strategic planning. Second, there is the temptation to by-pass capacity strengthening in order to get quick results. Social funds as an institution need more research. The most careful evaluation of their performance so far (Marc et al. 1995; Khadiagala 1995) highlights key areas for future work: (1) how to reach the poorest of the poor in an arrangement that relies on communities and local organizations being able to propose, design, and implement programs, and (2) how the institutional set up of social funds affects fund performance in general.

Many community-level approaches remain effective, but are often considered marginal in terms of poverty and undernutrition reduction because they cannot be "scaled up." Uvin (1995) reviews 25 grassroots organizations that have scaled up or increased their coverage and impact, and outlines the different ways in which these generally considered "successful" organizations have achieved this. Uvin identifies four main pathways: (1) quantitative (e.g., increased numbers reached, replication elsewhere, integration into existing institutions), (2) functional (e.g., new activities, related and unrelated to the original, are taken on), (3) political (e.g., increase participation of members in the political process), and (4) organizational (e.g., more funding independence and diversity). More institutional-level analyses need to be undertaken to understand which constraints to scaling up are most binding under which circumstances.

Up to now, this paper has not differentiated between the role of the state and of NGOs in safety net design and delivery–both have been subsumed under public action for social assistance and social insurance. Strong claims have been made for the

potential of NGOs in the general development process (as made in Brett 1993). Equally strong claims have been made by those urging scrutiny of the performance of NGOs. For example, Brett (1993, p. 271) states:

> Voluntary agencies have many achievements to their credit, but whether their use of resources, decision making processes, and labor relations are as effective and socially beneficial as claimed has yet to be rigorously tested in theory and in practice.

It is difficult to talk about "voluntary organizations" such as NGOs as a group because, perhaps more than government agencies, they are extremely heterogeneous. This heterogeneity provides scope for research on the actual and potential role of NGOS in the design and provision of safety nets.

2.2.3 Positive Externalities

What are the positive externalities that can be expected from the implementation of effective safety nets? It is becoming increasingly clear that the avoidance of poverty and undernutrition constitute large positive externalities. Prevention of early childhood undernutrition improves school enrollment and labor productivity (Strauss and Thomas 1995; Steckel 1995). In addition, there is now some evidence to show that the prevention of early childhood undernutrition has led to a lower incidence of diseases of overnutrition, such as coronary heart disease in later life, thus saving expensive tertiary health care costs for the poor and nonpoor alike (Barker 1994). While it is probable that improved targeting will result in larger positive externalities for the same budget, the nutrition literature indicates that there may well be an optimal level of targeting for positive externality generation. For example, Ruel et al. (1996) find that for a longitudinal sample of Guatemalan children, those that benefitted the most from a food supplementation intervention were not necessarily those most at risk of poor growth.

3. SUMMARY OF KEY POLICY RESEARCH ISSUES

The previous section provided a brief summary of the state of knowledge of the magnitude of different costs and benefits associated with safety nets and how they vary between and among programs. From the previous discussion, it is clear that the distinction between the social insurance and social assistance functions of safety nets is far from distinct in practice. Similarly, the interactions between private and public safety nets are much more complex than portrayed in Figure 1. In fact, there is the need to have a better understanding of the overlaps and interactions between the assistance and insurance and between the public and private dimensions of safety net design that underlie the answers to the three key policy research questions outlined below.

3.1 HOW CAN EXISTING SAFETY NETS DELIVER A GREATER *INITIAL* IMPACT PER UNIT OF PROGRAM RESOURCE?

The first key policy research issue is how to make existing safety nets deliver a greater *initial* impact per unit of program resource. Answers to this issue will require particularly close collaboration between researchers and these implementors. Subquestions include

- Can administrative costs be monitored and measured by collecting data under analytically useful definitions (e.g., screening, delivery, and monitoring)?
- Can low-cost impact monitoring tools be developed and used by implementors?
- Can implementors experiment with different levels of screening in cooperation with researchers (e.g., in the context of randomized trials)?
- Can safety nets be built on existing delivery infrastructures (e.g., delivery of food through primary health care infrastructure)?

- Which behaviors of the target group need to be better understood to exploit any opportunity for self-targeting (e.g., consumption, reservation wages)?
- How can outreach coverage be assessed reliably and quickly?
- What is the nature of potential positive and negative interactions with other public programs and policies?

3.2 HOW CAN SAFETY NETS PLAY MORE OF A ROLE IN LEVERAGING SUSTAINABLE ECONOMIC GROWTH?

The second key issue asks how can safety nets play more of a role in leveraging sustainable economic growth without impairing their primary assistance role? The key question surrounding this issue is the extent to which leverage of economic growth can be achieved without impairing the primary assistance role of safety nets. Subquestions include

- Which capital-developing activities show the most promise in leveraging growth–physical (e.g., infrastructure), human (e.g., skills), or social (e.g., networks)?
- How many of the nontarget (but still poor) groups need to be included in safety net coverage to satisfy political feasibility?
- How can designers anticipate externalities and maximize the positive (e.g., focus on health) and minimize the negative (e.g., look for unintended incentive effects)?
- How can individuals who may be empowered to create positive spillover effects be targeted (e.g., women for the promotion of household food security and nutrition)?
- How can safety nets increase risk-bearing capacity (e.g., through credit access)?
- How can transaction costs of participation in other programs be reduced (e.g., through same-site delivery systems or application procedures)?

- Does beneficiary participation pay off (e.g., through consultation in the identification of new alternative safety nets and in joint problem solving on extant safety nets)?
- Are community-level, bottom-up approaches to safety net design and implementation sustainable (e.g., community assessments of poverty and vulnerability)?
- When are NGOs in a better position to organize safety nets than other organizations?

3.3 HOW CAN SAFETY NETS BE DESIGNED SO AS TO NOT CROWD OUT PRIVATE INFORMAL ASSISTANCE MECHANISMS AND EVEN BUILD UPON THEM?

The third key issue asks how can safety nets be designed so as to not crowd out private, informal assistance mechanisms and, in fact, to build upon them? On this issue, little is known about the strength of informal safety nets and private responses to public safety nets. This goes right to the heart of the issue of when can public-sector safety nets do better than private safety nets. Moreover, a better understanding of these private safety nets will surely benefit public safety net design. Subquestions include

- What is the nature and extent of current private coping strategies (e.g., how frequent and large are inter- and intrafamily transfers)?
- How can safety nets be built on existing coping strategies (e.g., use women as the main participants in any safety net related to food)?
- How can several pilot studies be designed and undertaken to anticipate private responses to newly introduced public safety nets (e.g., what type of program design will most likely cause a drop-off in urban to rural remittance flows)?

- What can extant coping strategies not do (e.g., what happens to coping strategies during a weather shock such as a drought)?

3.4 IMPLICATIONS FOR RESEARCH METHODS

These policy research questions have important implications for research methodology development. The importance of accounting for endogenous program placement and self-selection has already been stressed. Many of the policy research questions highlighted, however, can best be addressed with a range of methods that go beyond the household survey. For example, an examination of the prima facie desirability of potential safety net alternatives can be undertaken with a household survey-based poverty profile, but the feasibility of these proposed alternatives can only be assessed through consultation with those the safety net is trying to reach (e.g., through a participatory poverty assessment), those who make the final decisions on its design (e.g., through project-level focus groups and institutional surveys), and those who are charged with the responsibility of carrying it out (e.g., through case-study stakeholder analysis).

4. SOME ILLUSTRATIONS FROM SOUTHERN AFRICA

The above discussion has been rather general in nature, despite the selective country-specific examples. This section highlights some of the policy research issues raised above in three policy contexts: South Africa, Mozambique, and Malawi. These three countries are chosen for reasons of familiarity, but also for the diversity of experiences they represent. South Africa has a large, but uneven, social security system that needs to be reshaped to capture all the vulnerable and to promote economic growth. Mozambique, by contrast, has only one safety net program, and that is urban-based and relief-oriented. The challenge for the Mozambican government is to develop a safety net that is rural- and urban-based and is more

development-oriented. Malawi has increasingly invested in its social sectors during the 1990s. While there are several development programs with a safety net character in Malawi, the challenge is to integrate these isolated efforts into a sustainable safety net system that addresses the gaps in rural and urban areas.

4.1 SOUTH AFRICA

Of the 53 percent of all South Africans who live in the poorest 40 percent of South African households,[8] 95 percent are African, 75 percent live in rural areas, and 50 percent are unemployed (PSLSD 1994). When taken together, pensions for disability and old-age and private remittances are the main source of income for over 40 percent of this group.

Clearly, state transfers continue to be an important source of income for the poor (Wilson and Ramphele 1989). The old-age pension (obviously age-based and now also means-tested–at least on paper) is a particularly important source of income to the elderly and the households in which they live. A recent participatory poverty assessment concluded that "without pensions, many households and communities would collapse" (May 1996, p. 95). This message is reinforced in a related study (Breslin and Delius 1996) in which interviewed individuals reported a shrinking of the range of family and friends that they felt they could appeal to for support.

The size of the social security budget has, however, been the second-fastest growing budget line item over the period 1991-95 (Ardington and Lund 1995). This, coupled with the fact that employment and job creation is the number one issue that the poor feel the government could help (PSLSD 1994; Breslin and Delius 1996), has created a lively debate as to whether resources should be diverted from old-age pensions towards programs such as public works programs (van der Berg 1994), which are perceived to be more development-oriented than the old-age pension transfer.

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[8] Based on consumption per adult equivalent (South Africa 1995).

Lund (1993) has argued that the social security transfers provide much more than a safety net in the narrowest sense of the word, but that they are a generally reliable source of income (although there are reports that the reliability could be higher [Ardington and Lund 1995]), are consumed by up to three generations within one household, go disproportionately to women, and serve as collateral for households to get access to credit. Lund (1993) implies that the growth linkage impacts of the pensions are probably quite large. Moreover, state transfers and private remittances are inequality-reducing sources of income growth, largely because they accrue to the poor (Leibbrandt, Woolard, and Woolard 1996). Increases in wage incomes have a much larger income effect on welfare compared to state transfers and remittances, but also generate much higher levels of income inequality, thus the net welfare increase of a change in these two income sources is similar.

The high visibility given by the government to job creation, and labor-intensive public works programs in particular, has raised expectations that the public works programs currently being designed and implemented will reduce unemployment and poverty and build human and physical capital in a fiscally sustainable manner (Abedian, Callear, and May 1993). (The scope for the generation of productive infrastructure is highlighted by the tremendous latent demand in the rural areas for improved access to water–see South Africa 1995.) However, experience from other countries indicates that to be effective, a public works program has to consider a wide range of design parameters.

A number of policy relevant research issues are raised in the South African context: (1) what is the magnitude of the second-round income-generation impacts of state transfers and remittances vis à vis public works programs? How are the second-round effects of public works programs affected by the choice of activity, choice of production technology (e.g., the extent of labor intensity), and choice of institutional arrangement? How do the two instruments interact? (2) What are the options for

improving the fineness of means-testing of the old-age pension while still protecting those below the poverty line? (3) What is the desirability and feasibility of explicitly expanding the safety net towards other groups such as children? (4) How well-targeted are the public works programs? (5) What is the capacity of remittance and other inter- and intrafamily transfers to provide social assistance and social security? (6) What is the political economy of social assistance programs and public works programs, given the rapidly changing political landscape in South Africa?

4.2 MOZAMBIQUE

The war in Mozambique separated rural people from their livelihoods, disrupted markets, and destroyed infrastructure. Mozambique ranks as one of the poorest countries in Sub-Saharan Africa. The Government of Mozambique (GOM) has accordingly identified its challenges as improving rural livelihoods, investment in human capital, and the construction of a rural safety net (Mozambique 1995a). The GOM expects that an effective safety net, in addition to saving lives during emergencies, will encourage the return of refugees and displaced families to rural areas.

In order to finance the extension of safety nets into rural areas, the GOM will be looking hard at the largest and, by far the most important, Mozambican public safety net, the urban-based GAPVU transfer scheme, for potential budgetary savings through improved targeting. This is, not surprisingly, a politically sensitive issue. On paper, it is difficult for critics to challenge the channeling of GAPVU towards its four target groups: (1) households with malnourished children, (2) households with pregnant, anemic women, (3) households with elderly who do not have any working-age adults in the same household, and (4) households with disabled persons (Mozambique 1995b). Moreover, GAPVU is one of the most visible and direct ways in which the GOM can demonstrate its effectiveness and impact.

On the other hand, there does seem to be a potential for reducing leakages within the GAPVU transfer system. A preliminary analysis of the GAPVU study by the Poverty Alleviation Unit of the GOM (Mozambique 1995b) draws some tentative conclusions: (1) among the elderly, GAPVU is the main source of income, (2) GAPVU is the major income source for 30 percent of the households in the other two groups–those with pregnant anemic women and those with malnourished children, (3) GAPVU households seem to be poorer than the general urban population, but (4) there seems to be substantial system leakage of income before the transfers are disbursed to beneficiaries.

The targeting performance of the GAPVU program remains an issue to research, especially in the context of three recent qualitative studies of urban poverty in Mozambique that come to different conclusions about the effectiveness of GAPVU. Studies by Rogers (1994) and Schubert (1995) state that GAPVU appears to be the only poverty alleviation program that reaches a significant number of poor and destitute households. However, another study by Cottam (1995) finds that GAPVU does not reach many of the most destitute in urban areas.

Other issues raised by these qualitative studies (and to a lesser extent by the quantitative study conducted by the PAU [Mozambique 1995b]) relate to the extent and strength of private transfers and remittances. A crucial component of any safety net rationalization will be an understanding of the extent of informal safety nets that exist. Cottam (1995) concludes that informal safety nets in the urban areas studied are more important than the formal structures. This is particularly so in the longer established areas. On the other hand, Schubert (1995) finds informal mechanisms such as transfers from children to elderly GAPVU beneficiaries to be weak.

Key policy-relevant research issues on safety nets for Mozambique include (1) the strength and nature of existing private safety nets, (2) the potential to redesign

GAPVU to save resources at a given impact, and (3) the identification of feasible options for rural areas.

4.3 MALAWI

Although Malawi's economic growth from independence until the late 1970s has been impressive, the benefits have not reached the majority of the population. Agriculture is the dominant sector, providing for 77 percent of employment, 90 percent of exports, and 35 percent of gross domestic product. After independence, the large-scale agriculture estate sector received preferential treatment through public investment and pricing policies, while the smallholder sector, which sustains three quarters of the population, stagnated. From the late 1970s, various shocks affected the economy: civil war in Mozambique with an accompanying disruption of trade routes, deterioration of terms of trade, and two droughts during the early 1990s. In 1981, Malawi began to implement a series of structural adjustment programs. Although the policy reforms to date can be said to have been necessary in avoiding further deterioration in the economy, they have not been sufficient in increasing incomes for the majority of the Malawian population (Kutengule 1995).

By recognizing the limitations of the past growth-oriented policies that are not coupled with safety nets to alleviate the short-run adverse effects of structural adjustment policies, the new Government of Malawi endorsed a national program for poverty alleviation soon after the 1994 elections. Priority is given to increasing the productivity of physical and human assets available to the poor (Malawi 1995). The shift in policy emphasis from *growth to growth with equity* is seen in the 1995-96 Public Sector Investment Plan, which proposes public-sector investment in education, health, water, and other social sectors that amounts to over half of total public-sector spending. In any year of the past three decades, less than a third of public-sector investments was spent on social sectors.

Malawi is one of the poorest and most densely populated countries of Africa. It is estimated that 60 percent of the people in rural areas and 65 percent of the people in urban areas live below the poverty line (Malawi 1994). There is widespread malnutrition (49 percent of preschoolers in 1993 were stunted), illiteracy (60 percent in 1987), and lack of access to health services and safe water. The infant mortality rate is 135 per 1,000 births. About one in four children does not reach its fifth birthday. The problems are compounded by rapid urbanization and the spread of HIV/AIDS, which appear to accelerate the breakdown of traditional informal social security systems in Malawi.

Most important for the social security of the poor in Malawi is their access to the informal safety net system. Informal social security in Malawi encompasses cash remittances from abroad, cash or in-kind remittances within the country, the sharing of foodstuffs, a provision of communal land, informal credit, labor sharing, and home care for the aged, handicapped, and orphans (Chipeta 1994). The role of remittances from abroad has declined during the 1980s and early 1990s, since many laborers returned from Zambia, Zimbabwe, and the Republic of South Africa. Chipeta (1994) finds that 60 percent of informal remittances are exchanged between parents and children. The next largest flow is between brothers and sisters. Most of the transfers are used to meet basic needs of food, clothing, and shelter. Furthermore, urban migrants are more likely to remit than rural migrants. Chipeta (1994) also asserts that an increase in public transfers would decrease such private transfers, an issue that ought to receive more attention in future research.

Chipeta and Mkandawire (1991), in their analysis of the informal financial sector in Malawi, further find that most loans in the informal sector are free of an interest charge, even when given by socially distant lenders such as traders. However, while the informal credit market plays a significant role, especially for consumption smoothing, Diagne, Zeller, and Mataya (1995) show in their household sample that 59

percent of rural Malawians experienced a binding borrowing constraint in the informal market, i.e., their informal loan demand was rationed. Low (1994) also notes the significance of men's and women's exchange networks (especially those that reach beyond the community) in terms of the promotion of positive food and nutrition outcomes.

These results indicate the important but, nonetheless, limited role that informal safety nets play in smoothing consumption. Future research should investigate which idiosyncratic and covariate risks, such as illness, unemployment, and drought, are adequately addressed by informal transfers, and which risks could be efficiently covered through public safety nets. Furthermore, research is required to better understand the structure, conduct, and performance of informal safety net institutions so as to help identify the type of formal safety net system that could build upon and complement existing informal systems.

In Malawi, only fragments of a formal social security system exist, such as pension funds for some employees of the formal sector. The formal social security net reaches only a small share of the Malawian population, as about 90 percent of Malawians are employed in the informal sectors (including smallholder agriculture). The minimum wage legislation of 1964 is not enforced and has proved to be ineffective, as many employers take the minimum wage rather as a maximum than a minimum (Kutengule 1995). For the rural and urban poor, various temporary relief schemes have been implemented during the 1990s, mostly as an ad hoc response to the droughts rather than derived from an overall national safety nets strategy. For example, these schemes include the 1994-95 Drought Relief Program, which distributed food, fertilizer, and seed to over 1 million households in drought-affected parts of the country. Other programs that emphasize the creation of human and physical assets for the urban and rural poor over short-run relief objectives are recently initiated public work schemes and the Malawi Social Action Fund.

Of note, also, is Malawi's Free Primary School Education Program, which abolished school fees since the 1994-95 school year, and which led to large increases in net enrollment to over 80 percent on national average (Chilowa et al. 1995). Increasingly important players are religious and other nongovernmental organizations that provide relief and other social services to the poor. Already in 1985, a Council for Social Welfare Services was formed in an attempt to strengthen and coordinate the delivery of social welfare services to the underprivileged. Simukonda (1992) identifies various problem areas, such as the heterogeneity of social welfare organizations in terms of origin, objectives, and operational cultures, that jeopardize the effectiveness of the Council.

The challenge in Malawi is to come up with a policy framework for the integration of these fragmented efforts (Kutengule 1995). The national poverty monitoring and analysis system being currently formed (Malawi 1996), combined with in-depth research on growth and equity effects of social safety net policies, which takes into account the substitution effects and dynamics of informal safety nets, will play a crucial role in identifying a coherent and sustainable social safety net system.

5. CONCLUSIONS

This paper has reviewed design features by which safety nets might do more with less. It has reviewed the current evidence on their success in practice–including three brief reviews of southern Africa experience–and has suggested a role for future policy research in furthering the goal of designing safety nets that reduce poverty in a cost-effective way. In doing so, the paper highlights a tension between the large gaps in our knowledge about the design of safety nets and the demand for short-run answers in the area of safety nets. This tension is by no means unique to the issue of safety net design, but due to the often overt politicization of safety net design and

implementation (both domestically and as a component of IMF conditionality), the gestation period for the formulation of policies may be shorter than for many other policy issues. Given the difficulty of the research questions and the immediacy with which answers are needed, what is the role of future research?

One could make the argument that the existence of some useful rules of thumb for safety net program choice in the absence of policy modeling reduces the usefulness of extra research. Grosh (1995b), for example, presents five criteria for choosing among poverty programs: administrative feasibility, political feasibility, second-round effects, targeting ability, and ability to tailor the solution to the problem. These criteria are then applied to six types of safety net programs: general food price subsidies, food stamps, food commodities through clinics, school feeding, social funds, and microenterprise credit. Similarly, Lipton (1996) describes 13 "rules of anti-poverty success" (p. 76) that cover an expanded but essentially similar set of characteristics.

Given the existence of these useful guidelines, how can additional research contribute? First, note that these rules of thumb are built on an extensive body of theoretical and empirical research. Future research will reshape these rules (possibly beyond all recognition) and will improve their ability to guide program choice in the absence of context-specific research.

Second, there are many areas in which guidelines do not exist: private responses, how to leverage sustainable economic growth through safety nets without impairing their assistance function, understanding and measuring externality effects, documenting interactions between programs, and comparisons across programs with similar, but different, objectives, to name a few examples.

Third, for many safety net programs, the problems and solutions are to be found in the details. Existing rules of thumb tend to focus on the "what" rather than the "how." Two examples of "how" questions are related to (1) the role that research

tools can play in developing operational monitoring systems, and (2) understanding whether the limits of top-down targeting have been reached in urban areas, and whether this approach is even relevant for rural areas, given the trend towards decentralization of government decisionmaking.

Finally, rules of thumb have to be established and redefined not only on what to put in a safety net and how to implement those components, but also on how to conduct research on those components. Making important contributions in all three of these areas should be the goal of future research programs on safety nets.

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