

Reforming Poverty Alleviation Policies

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Introduction

In the world today, about 1 billion people live on less than \$1 per day, and about 2-3 billion live on less than \$2 per day (World Bank 1997). Thirty years ago, the numbers looked very different. Broad-based economic growth in populous countries like China and Indonesia has substantially reduced rates of absolute poverty. In Indonesia, for example, the fraction of the population below their poverty line fell from 58% to 17% between 1972 and 1982, and in Brazil the fraction fell from 50% to 21% between 1960 and 1980 (World Bank 1993b). Similarly, China boasts reductions in rural poverty from 31% to 7% between 1978 and 1995, a decrease by 185 million people.¹ These changes have left a growing concentration of world poverty in slow-growth areas of South Asia and Africa.

A generation ago, approaches to poverty alleviation were also considerably different. While there had been an active macroeconomic agenda on “redistribution with growth,” much of it represented in the studies in Chenery, et al. (1974), approaches through the 1970’s and mid-1980’s tended to focus on poverty alleviation as a static problem. The prospect that economic growth would play an important role in poverty alleviation appeared dim, at least in the medium term, and the ascendant priority was the direct provision of “basic needs” like food, shelter, education, and health care. Strikingly, in the influential Streeten, et al. (1981) volume *First Things First*, the chapter on basic needs and economic growth is devoted almost entirely to how basic needs provision affects prospects for growth, with little heed to how economic growth can

¹ But see the qualifications noted by Park, Wang, and Wu (1997) and Chen and Ravallion (1996). They argue that current poverty measures should be adjusted upward since the official numbers fail to account for regional price differences. The poverty reductions remain dramatic, however, in terms of absolute numbers.

improve the fulfillment of basic needs. The optimism of Robert McNamara's 1973 Nairobi speech, setting forth the imperatives of the Basic Needs approach from the vantage of the World Bank presidency, echoed the kind of optimism that surrounded the formulation of Lyndon Johnson's War on Poverty. Twenty-five years later, however, the promise of those early plans remains unfulfilled, both in the U.S. and in low-income countries.

As a result, the attitudes of many have nearly completely flipped. First, the limits to government action have now been forcefully documented (e.g., Krueger 1990). Administrative capacity and tax bases are often limited, and, despite rhetoric to the contrary, political commitment to poverty alleviation is often limited too, especially since concern with poverty alleviation must compete against other government objectives such as investing in long-term growth and implementing fiscal reforms. At the implementation stage, policies are often reshaped and bogged down by bureaucracies, further diminishing help for the poor.

Second, the potential benefits of economic growth are now better understood. The fall of the Soviet empire has played its part, pointedly demonstrating the power of compounding growth rates. While in any given year, for example, sacrificing 2% of expected GDP via a lower growth rate might appear to be a small cost if it buys social benefits, after thirty years the cumulative cost is levels of GDP that are 44% lower than they otherwise would have been -- with correspondingly fewer resources for health, education, and other social services.

The World Bank's new policy lines tend to fall in line with these changes, featuring "market friendly" policies, the search for "win-win" policy options (i.e.,

policies that appear to be politically costless), and the assertion that the long-term efficiency-equity tradeoff is a fiction when it comes to investments in human capital and infrastructure.²

In the end, this mainstream position is not very far from where it was in the early 1970's: that the aim is to help poor households take advantage of broader processes of growth by removing economic barriers and building bridges that facilitate widespread gains. The broad policy prescriptions of *Redistribution with Growth* hardly seem dated a quarter century later.

Still, approaches are changing, and below I describe two examples that illustrate shifting perspectives. The discussion points to limits of the “win-win” vision and to places where recent research can help sharpen policy dialogues.

The first is international health policy, in which the leading analytical framework of the 1990s, the application of “cost-effectiveness” principles, is a throwback to old-style planning exercises. The “cost-effectiveness” approach centers on identifying priorities for public health care provision and provides a structure for organizing a wide variety of health statistics. The strong language and scientific imprimatur helps reinforce arguments against funneling large fractions of government budgets into expensive teaching hospitals that will improve a poor population's health far less than immunizing children against common diseases like measles. The technocratic approach, however, pays little heed to political incentives. And concerns with the basic principles of public finance tend to be tacked on, rather than fully integrated into the approach (the concerns

² The lack of an efficiency-equity trade-off is misleading when considering optimal policies. It may be true that investing in basic human capital is likely to improve both equity and efficiency, but it is unlikely that the first-best level of investment in the cause of equity is generally free of opportunity costs.

include issues surrounding risk, externalities, information asymmetries, cost-recovery, and provision of health services by the private sector).

If international health policy discussion reflects older traditions, the second case represents new departures. This is microfinance, the expansion of financial services to low-income households -- surely the most discussed new poverty alleviation strategy of the past decade. In sharp contrast to the vision from public health, advocates of microfinance are pushing a set of “best practices” that entail eschewing all ongoing government intervention and enthusiastically embracing market principles (Otero and Rhyne 1994; Morduch 1998b). The “best practices” message has driven home the argument that heavily subsidized public credit programs are destined for failure, to be inevitably hobbled by booming default rates and weak targeting to poor households. By June 1986, for example, India’s flagship Integrated Rural Development Program, was facing repayment rates of just 41% on loans to poor households (Pulley 1989, Table 5.20, p. 33). By privileging full cost-recovery at the expense of depth of outreach, however, “best practices” can be far off target for non-profit programs whose bottom line is social impact.

Both improving health conditions and broadening access to financial services can offer critical ways to help households “hook” into growth processes. The focus is on these particular cases because they provide a telling contrast in policy approaches and because discussion of other linkages, notably labor market reform and education policy, are the focus of chapters elsewhere in the volume.

While the two approaches start from opposite positions with respect to the efficacy of public action, both unite in a reluctance to explore effective public-private

relationships. The international health policy discussion does so by downplaying the role of the private sector and cost-recovery, and the microfinance discussion does so by highlighting little else. Lessons from the vast body of micro-level theoretical and empirical work completed over the past two decades suggests, however, that poverty alleviation efforts can benefit substantially from public-private partnerships. Limits to government action have been described above, and limits to markets are also now better understood. Research has made progress in detailing these limits and in showing how families and community institutions help to mediate the problems. With respect to poverty alleviation, opening new markets and improving existing institutions can be an enormous benefit, but just improving markets will seldom ensure optimal redistribution. Inevitably, there are still loose ends in the research to date, but the broad sweep points to places where a private-public orientation can be most useful and examples are provided below.

The next section reviews new evidence on broad relationships between economic growth and poverty. The following two sections focus on health and finance. The subsequent section describes possibilities for adding to how we conceptualize and measure poverty, and the conclusion returns to the political incentives that constrain poverty alleviation policy.³

³ The focus of the present paper is on long-term dynamic issues. Poverty alleviation policy is also concerned with addressing short-term emergencies such as those caused by drought, flooding, and dislocation brought on by economic and political upheaval. DrPze and Sen (1989) provide arguments on policy responses. The contributions in van de Walle and Nead (1995) offer perspectives on targeted redistribution.

Redistribution with growth revisited

That poverty alleviation must go hand in hand with measures to increase national income was a central tenet of the work of the National Planning Committee of the Indian National Congress, formed in 1938 with Jawaharlal Nehru at its head. Nehru writes that to “insure an irreducible minimum standard for everybody, national income had to be greatly increased...and we aimed at a 200 to 300 per cent increase in ten years.” (Nehru 1946). The work of Indian planners after independence followed this line, with four main principles: (1) “The central concern of our planning has to be the removal of poverty as early as possible;” (2) without economic growth, income redistribution would lead to an average income that would still be “pitifully low”; (3) some degree of income inequality is needed in order to generate savings and incentives for investment; and (4) much of “rural activity is but loosely integrated with the growing sectors of the economy” so that “economic development is not likely to automatically lift the income of the entire population,” leaving a fifth of the population in need of redistributive measures in order to benefit from the changing economy.⁴

Very similar ideas form the basis of the World Bank’s influential study, *Redistribution with Growth*: a strong belief in the importance of economic growth for poverty alleviation, but a pessimism that most poor households would benefit directly from such growth. The volume starts with the concession that: “It is now clear that more than a decade of rapid growth in underdeveloped countries has been of little or no benefit to perhaps a third of their population” (Chenery, et al.1974, p. xiii). Montek Ahluwalia,

⁴ The arguments are articulated in a paper circulated in August 1962 under the direction of Shri Pitambar Pant of the Planning Commission. The paper is reprinted as “Implications of Planning for a Minimum Level of Living” in Bardhan and Srinivasan (1974), and the quotes are from pages 13 and 14 of that volume. I thank T.N. Srinivasan for pointing me to relevant primary source materials.

part of the Chenery team, subsequently presented cross-section evidence showing that inequality tended to worsen with growth before getting better, and this “Kuznets inverted-U” relationship was taken as a given.

This is no longer so. Evidence from the intervening decades yields no sharp evidence of an inverted-U (see, e.g., Bruno, et al. 1998 and the references therein), and the given is now that the growth-inequality relationship can go any which way.

The evidence on the growth-poverty relationship is much sharper and more encouraging. In analyzing 88 recent periods of real growth in a cross-section of countries, Deininger and Squire (1996) find, for example, that nearly 90% were associated with absolute improvements in income of the poorest quintile. Correspondingly, during seven periods of income decline, five led to worsening of the absolute position of the bottom quintile.⁵

Similarly, Bruno, et al., (1998) consider the experiences of twenty countries between 1984 and 1993. Strikingly, they find that a 10 percent increase in mean income would, on average, lead to a 20 percent reduction in the fraction of the population living on less than one dollar per day, with gains felt by households considerably below the poverty line as well as those close to it.

The great bulk of the world’s poor population turns out to be quite close to poverty lines. This can be seen by the relatively small size of the poverty gap measured across low-income countries. Using India’s poverty line of \$23 per capita per month (in 1985 U.S. dollars), Lipton and Ravallion (1995) report that in 1985 the poverty gap (the

⁵ In further investigating the 13 anomalous cases, Deininger and Squire (1996) find only one robust anomaly: Colombia between 1970 to 1980, when income grew at slightly more than 2% while the income of the bottom quintile fell by just under 1%. Recent experiences in India are also consistent with these patterns. Between 1977-78 and 1988, the percentage of the population below the poverty line fell from 47%

cumulative amount of money that would be needed to completely eliminate poverty through perfectly targeted transfers) came to about 1% of total consumption in the developing world. Taking just the poorest one third of countries, this came to about 3%. Sustained broad-based growth can thus substantially reduce poverty rates -- sooner rather than later. The emphasis on economic growth thus remains strong, while the urgency accorded to widespread income redistribution has withered.

This is not entirely uncontroversial, however. While the strongly redistributive push of the Basic Needs approach has few adherents today, echoes can be heard in recent arguments like those of Jean DrPze and Amartya Sen (1989). They argue that waiting for the fruit of economic growth can take years and that public action can (and should) be directed at helping poor households do better today. The argument underlies the approach to health policy described in the next section.

A striking example is given by the concerted malaria eradication campaign in Sri Lanka, which was followed by a drop in the mortality rate from malaria from 187 per 100,000 in 1946 to 66 in 1947 to 21 by 1953. Similarly, their campaign against tuberculosis is associated with a drop in the morbidity level from 62 per 100,000 in 1940 to 16 per 100,000 by 1960. The crude death rate fell accordingly, from 22 per 1000 in 1936 to below 10 by the 1950s. (The evidence here is from Rasaputra, 1986, cited by Anand and Kanbur 1990.) Economic growth alone could not have delivered these results so quickly.

DrPze and Sen (1989) use country case studies and simple cross-country econometric regressions to buttress their argument. For example, they describe a

to 37% in urban areas of India and from 53% to 39% in rural areas. These changes have been attributed in largest part to the role of growth (Datt and Ravallion 1993).

regression of the logarithm of the mortality rate for children under five on the logarithm of per capita gross national product. (Child mortality rates provide a useful proxy for the basic welfare of poor households by reflecting the interaction of maternal health, education, child nutrition, and environmental conditions.) The same specification run for data on 122 countries (with populations over one million) in 1995 yields that

$$\text{Logarithm of child mortality} = 8.48 - 0.66 * \text{logarithm of GNP per capita,} \\ (0.24) (0.03)$$

with standard errors in parentheses below and an R^2 of 0.77. The equation yields a strong negative correlation between income and mortality and a good fit (although the correlation is heightened by a long list of omitted variables).⁶ The results are even stronger when estimating with gross domestic product data adjusted to ensure purchasing power parity:

$$\text{Logarithm of child mortality} = 10.82 - 0.89 * \text{logarithm of GDP per capita,} \\ (0.34) (0.04)$$

with an R^2 again of 0.77 (and 131 observations). The evidence shows that a ten percent increase in average GDP is associated with a nine percent drop in infant mortality.

The results suggest the efficacy of income-based strategies, but DrPze and Sen (1989) use the approach to point to countries that are doing much better than expected based on average income. They thus instead highlight the efficacy of alternative strategies.

Analysis of the regression residuals shows that the child mortality rate in Sri Lanka, for example, is 26 percent of that predicted on the basis of its average income, a

result due to earlier direct health interventions (as well as to geographic and institutional factors omitted from the specification). If income in Sri Lanka grew at a steady 3 percent per year, it would take forty-five years to reach the level of income associated with its current level of child mortality. Other countries with large residuals include countries with strong commitments to public health interventions like Jamaica (with mortality equal to 31 percent of predicted mortality) and former Soviet republics like Georgia (21%), Moldova (26%), Azerbaijan (29%), Armenia (29%), Ukraine (30%), Tajikistan (33%), Estonia (39%), Latvia (40%), and Lithuania (45%).⁷ On the other end of the scale are countries with high levels of social and economic inequality: oil rich countries like Saudi Arabia (155%) and Kuwait (172%); Latin American countries with relatively high inequality like Peru (156%), Bolivia (163%), Mexico (164%), and Brazil (184%); and a series of countries from sub-Saharan Africa (The Gambia, Mauritania, Namibia, Guinea, Angola, South Africa, Botswana, and Gabon).

Without more careful analysis, the results are only suggestive. But they underscore the understandings put forward by Nehru and the National Planning Committee in considering poverty alleviation in the late 1930s. First, having more income is strongly associated with higher welfare. The strength of this relationship is not all due to the causal link from income to welfare, however. But even if the true elasticity of health with respect to national income is a half (or a quarter) of the parameter estimate above, the responsiveness is still large and important. Second, without deliberate interventions, poor and socially-isolated segments of populations are not guaranteed

⁶ The data are from the World Bank World Development Indicators 1998 (CD-ROM).

⁷ China is emphasized for being exceptional in Dr. Pze's and Sen's 1987 data, but once data adjusted for purchasing power parity are used, it turns out to be under five years of income growth (at just 3 percent per year) away from their predicted value for mortality.

progress equal to that seen by others. The questions then become: How can policies encourage *broad-based* economic growth? How can interventions improve basic living standards for those for whom national economic growth is not sufficient in the medium-term? How can political constraints be overcome? This mixed picture on the role of governments and markets provides the backdrop for viewing the two approaches considered below.

Health policy and poverty alleviation

Increasing human capital is thought to be one of the most critical ways for poor households to hook into growth processes. Although formal empirical work remains scant, improving health conditions is considered central to this aim: good health can enhance productivity (Strauss and Thomas 1995), and bad health can trigger and lengthen spells of poverty. While work on household behavior under risk in low-income countries has tended to focus on impacts of crop losses, health shocks are often even more devastating and deserve more attention (Kochar 1997).

Health inequalities remain large. Life expectancy in Sub-Saharan Africa is just fifty years, while rates in East Asia exceed seventy years. Little over half of the sub-Saharan African population has access to health services and safe drinking water. There would appear to be little room for debate about the basic priorities for health policy in Africa and similar low-income regions. The life expectancy figures reflect the death of millions of children each year for lack of inexpensive inoculations or simple treatments for diarrhea. At the same time, modern hospitals are constructed in capital cities, equipped with cardiac units and cancer wards that serve mainly the urban rich at

subsidized rates. In the 1980's, for example, Brazil, Jordan and Venezuela were each spending over seventy percent of health budgets on large hospitals, while public health programs and community health centers went underfunded (World Bank 1993a). Few observers can avoid frustration at the imbalance.

This is the starting point of the ambitious and influential agenda on priorities for health care provision in low income countries underwritten by the World Health Organization and implemented partly by faculty at Harvard's School of Public Health (Dean Jamison, et al. 1993). The World Bank's *World Development Report 1993: Investing in Health* partly represented the agenda, and the work still carries weight in some sectors of the Bank.

Faced with a web of problems in the health sector, the studies build around the aim of saving the greatest number of lives at the least expense. The approach begins with the calculation of the disability-adjusted life years (DALYs) that are saved through every intervention considered.⁸ The framework provides a simple way to summarize health conditions. For example, calculation of DALYs shows that 45% of DALYs lost in sub-Saharan Africa were due to "largely preventable or inexpensively curable diseases of children" like diarrhea, measles, respiratory infections, worm infections, and malaria (World Bank 1993a, p. 113), whereas in Asia the percentage was 25-30%.

The principle is put into practice in calculations of "cost-effectiveness" ratios which determine a package of "essential clinical services" that, it is argued, should be given priority in public spending since they save the greatest number of DALYs per

⁸ A DALY is a form of QALY (quality adjusted life-year). See Broome's (1993) discussion of QALYs and their limitations. By incorporating disabilities, the measure goes beyond life expectancy as a metric of health status and serves as a useful descriptive tool, allowing comparisons over different populations and diseases. In order to make comprehensive comparisons, the great bulk of the data on illness-specific

dollar. The World Bank estimates that investing \$100,000 in chemotherapy for tuberculosis, for example, would save the lives of about five hundred patients and reduce infection to others, gaining around 35,000 DALYs. The same investment in diabetes management, for example, would save only about 400 DALYs since the expected gain is less than a year of healthy life and again about five hundred patients could be treated. Treating tuberculosis thus gets high priority (World Bank 1993a, chapter 3, page 61).

How much does the “cost-effectiveness” approach add to what we already know? In general, the policy priorities that emerge are not surprising: improve education, combat virulently communicable diseases, and encourage preventive care and the improvement of infrastructure like housing and sanitation. Even without “cost-effectiveness” calculations, a very similar list of priorities would likely have been drawn up since many of the top priorities can also be justified with reference to public goods (sanitation), externalities (disease control, education), and myopia (preventive care).

These basic public finance elements, however, are not well-integrated into the “cost-effectiveness” approach. The tuberculosis versus diabetes case, for example, gives priority to addressing tuberculosis because of the threat of contagion, but it does so in a purely mechanistic way. The logic of priority-setting in the “cost-effectiveness” approach does not arise because the presence of externalities associated with tuberculosis leads to a market failure (and thus yields a potentially beneficial role for state intervention). Instead, the priorities emerge from an accounting exercise that is not fundamentally rooted in the basic economic, social, and political circumstances of the given countries.

mortality rates are of necessity estimated, extrapolated, or otherwise constructed, but, unfortunately, standard errors are not provided for the estimates.

Does the logic really matter if most of the final rankings seem sensible? The affirmative answer springs from two main arguments. First, some key rankings can (and do) change depending on the approach taken. Second, the “cost-effectiveness” approach yields little guidance on the critical next steps in implementing policies.

A first fundamental tension is that the framework centers on priorities for public action, but many of the same governments that we see today were the ones that created misallocations yesterday. “Cost-effectiveness” advocates suggest that with better information (and growing public awareness) governments will start to rectify past mistakes. It is hard to believe, however, that all of the misguided priorities of the past arose from limited information about the “cost-effectiveness” of interventions. It seems reasonable to assume instead that governments make choices in part to acquire prestige, seek rents, and accommodate interest groups, in addition to trying to maximize some notion of welfare. These factors are often at odds with improving health conditions and are unlikely to change on their own, and I return to them briefly in the conclusion.

Second, the most relevant question for health planners is not what the government should do if it were the primary health provider for its population. Instead, the key question typically concerns what the government should do given the existing mix of health providers, markets, and local institutions. In most countries, the private health sector is large and important. In India, for example, nearly 80% of health spending goes through the private sector. In Asia, outside of India and China, roughly 60% is private, and, even in China, 40% is provided outside of state mechanisms. Private markets account for 44% of spending on health in sub-Saharan Africa, 65% in Indonesia, 40% in Latin America and the Caribbean, 29% in the former socialist countries. Among richer

countries, private markets account for 25% of spending on health in Japan, 57% in the United States, and roughly 40% in the “established market economies” as a whole (basically the OECD). (Calculations are based on World Bank (1993a), Appendix Table A.9.)

Third, looking beyond the “cost-effectiveness” approach can highlight a broader set of socially valuable interventions (as well as places where public interventions will be of limited benefit). It also leads to new questions. These include: How can incentives be maintained in government health institutions? How do failures in markets for health services compare to market failures elsewhere? When can costs be recovered through user fees? How can improvements be best attained when governments are weak? These are the sorts of questions that are actively debated in the U.S. and in other OECD countries. They are no less relevant in LDCs, but the new “cost-effectiveness” framework gives no direction. It is easy to imagine, though, that the answers to these questions will re-shape priorities that emerge from simple “cost-effectiveness” orderings, and new research shows ways that this can happen.

A related set of inquiries concerns the simultaneous public and private provision of health services. While “cost-effectiveness” calculations tend to point to the efficacy of primary care, Hammer, et al., (1995), for example, find that the net marginal impact of government spending on doctors in Malaysia was not significant with respect to infant mortality reductions (while immunizations mattered). Alderman and Lavy (1995) find similar sorts of crowding out of private health service provision. Ranking state interventions ought to take into account institutions that are already in place. For example, the private sector in low-income countries tends to focus on ambulatory care --

i.e., not in-patient hospital care and not preventive medicine. Private household spending in India, for example, constitutes 92% of primary curative care expenses, which itself is nearly half of total national spending on health. Governments only account for 24% of in-patient treatment expenditures, with households paying out of pocket for drugs and supplies (Berman 1998).

Of course, not all private care is high quality. Rohde and Vishwanath (1996), for example, consider a series of large Indian surveys and find that 80% of rural private “doctors” were in fact not certified at all, with only half receiving formal health care training. Government clinics, on the other hand, while free, also tend to be low quality. Although many private practitioners are “less than fully qualified,” they can handle many basic problems, and government clinics in no sense operate in a vacuum. The “cost-effectiveness” studies focus on the benefits of direct provision, but allocating part of government budgets to instead maintaining quality in the private sector (and encouraging expansion) may do more to improve health conditions than providing services directly.

Turning to poverty alleviation more specifically, another set of questions involves priorities that emerge when maximizing a broad notion of social welfare (or minimizing poverty), rather than maximizing a narrow gauge of health. For example, consider market failures due to asymmetric information. Welfare losses associated with the failure of markets to insure against high-cost but low probability diseases can be higher than losses associated with failures to insure against low-cost, common health problems (which are already largely handled by private health providers). Thus, optimal policy prescriptions will favor interventions that might otherwise appear to among the *least* “cost-effective” interventions (where “cost-effectiveness” is measured along the narrow dimension of

health improvements only). Gertler and Gruber (1997), for example, find that Indonesian families can insure adequately against about 70% of common, moderate-sized health shocks, but they are only able to deflect 30% of the negative impacts on consumption levels when health problems are major. This kind of evidence provides a compelling reason to consider public provision of insurance against catastrophic illness, despite a low “cost-effectiveness” rating.⁹

From a broader perspective, health issues cannot be disconnected from a household’s general ability to protect welfare levels. A key element that makes health risks very different from other concerns is that illness often calls for immediate attention. If the condition is severe, it could require drawing down or reallocating assets substantially (Kochar 1997). Thus, when an earner becomes sick, the whole family suffers and may never recover financially.¹⁰ The health problem thus can link closely to issues of insurance and finance. Viewing the problem in an integrated way can help show where improvements in insurance mechanisms can improve household welfare more than

⁹ See Hammer (1993) for a specific treatment and DrPze and Stern (1987) for a general treatment. Benefits (lives saved) should properly be viewed in a general equilibrium framework. The calculation of DALYs is done so that sparing a child from death from measles is accorded the value of a lifetime saved. But if that child has a high likelihood of dying later from tuberculosis, many fewer years have been saved. This has implications for using the cost effectiveness criterion. For example, imagine that one disease, call it A, affects infants and another disease B affects older children. A proportion a of infants die from disease A, and a proportion b of the survivors die from disease B. To simplify matters, assume that if we reduce the incidence of disease B by one person, that person will live a long and healthy life thereafter. If we reduce the incidence of A by one person, that person might live a long life or, with probability b , die from disease B. Thus, even if curing a child of disease A is less expensive than curing a child of disease B, if b is large enough, it will turn out that curing B *ultimately* saves more DALYs per dollar. (For simplicity, I have not valued the years between infancy and childhood. The point is just to illustrate the principle.) Dow, et al., (1997), for example, show how these spillovers matter in practice. Expanding vaccination coverage in sub-Saharan Africa led to actions by mothers to improve neonatal care, increasing the average birthweight of children and thus lowering the incidence of infant mortality more broadly. Simple “cost-effectiveness” measures miss these kinds of spillovers.

¹⁰ Partly because of this, DALYs are calculated with weights on prime-age earners that are 3–4 times that of a year of life of young children or the elderly. However, this *ad hoc* and not sufficient to capture the essence of the problem. See Anand and Hanson (1997) for a broader critique of issues in weighting DALYs.

direct health interventions -- or *vice versa*. But much more needs to be known about the relationship of illness, uncertainty, and earning power.

In sum, the “cost-effectiveness” approach to health reform is most useful when addressed to well-intentioned bureaucracies that are the central providers of medical services but that lack comprehensive information on the mapping of medical inputs to medical outcomes. This is hardly the norm. Real progress in health sector reform and poverty alleviation will not come without paying closer attention to political incentives and the inter-relationship of government action, markets, and household behavior. Much will be gained by more fully integrating lessons from household economics and studies of markets and contracts into the conversation.

Finance and poverty alleviation

If leading health-sector analysts have too readily ignored the private sector, leading microfinance advocates have too quickly dismissed ongoing private-public partnerships. Microfinance “best practices” focus strongly on the goal of becoming fully profit-making institutions, fueled by a strong suspicion of government involvement.

The microfinance movement has led the way in privileging the role of non-governmental organizations, focusing on gender, and paying keen attention to incentives and delivery mechanisms. It has strongly argued that much poverty can be alleviated by providing small loans to poor households -- and that this can be done efficiently, despite a very mixed history of previous credit programs. All of this has put microfinance in the vanguard of new efforts to alleviate poverty.¹¹

¹¹ Adams and von Pischke (1992) describe failures of subsidized credit programs. The greatest emphasis of the movement has been on credit, but encouraging savings is gaining in importance. Early microfinance

In the past two decades, a diverse assortment of new programs have been set up worldwide, and globally there are now about 8 to 10 million households served by microfinance programs, with continuing efforts to rapidly expand. Most of these programs lend small amounts, starting at around \$75, to would-be entrepreneurs, and they employ a variety of innovative contractual forms in lieu of collateral, most notably group-lending with joint liability (Morduch 1999b).

A slowly expanding minority of programs function well as banks and make modest profits. The leading two examples are Bolivia's BancoSol and the unit *desa* program of Indonesia's Bank Rakyat Indonesia. In 1995, for example, BRI made profits of \$175 million through its unit *desa* operations, and it would have covered costs while charging its clients a real rate of just 7% per year for loans (Yaron, et al. 1998).

But these programs mainly cater to the "richest of the poor" and to non-poor households (and BRI requires collateral), and unit costs are substantially lower than for programs focused on poor clients. At the end of 1998, the average loan balance at BancoSol was above \$900 and that for BRI (at the end of 1996) was above \$1000. In contrast, average loan balances at Bangladesh's Grameen Bank, a subsidized bank with a strong commitment to depth of outreach, were \$134 (August 1998). There is no carefully documented case that shows that any of the few existing profit-making microfinance institutions are appreciably reducing poverty. (They may be making contributions in other ways, however, and once an appropriate regulatory framework is set up, experience

programs were not effective in mobilizing savings and showed little interest in doing so. Partly, it was thought that poor households were too poor to save. One of the lessons from the recent microfinance experience, however, is that, even poor households are eager to save if given appealing interest rates and/or flexible accounts. Providing appealing savings vehicles may be more valuable than production credit for poor households, since it also offers a tool for consumption smoothing.

suggests that it makes sense to get governments out of the way. These programs can then expand, contract, and innovate with market opportunities.)¹²

Leaders of the microfinance movement have been slow to accept the tension between profitability and poverty alleviation. For the most part, profit-seeking banks fail to penetrate further in low income areas because transactions costs per unit for \$100 loans can easily be over five times higher than for \$500 loans, and making ends meet is a continual challenge. A recent survey shows that those programs that do maintain a focus on poverty cover only about 70% of their full costs (despite a stated “commitment” to achieving financial sustainability; *MicroBanking Bulletin* 1998). Loan officers fear that raising interest rates to break-even levels will deter too many target clients, but the conversation is stalemated for lack of hard evidence (see Morduch 1998b).

Lack of evidence has also hindered studies of the costs and benefits of subsidization. Most importantly, there have been only a handful of social impact evaluations with convincing control-treatment comparisons, and the evidence from those yields a mixed picture. Using data from 1991-92, for example, I find that Bangladeshi households with access to the Grameen Bank have no higher average consumption levels than comparable households without access, nor are children substantially more likely to be in school. Pitt and Khandker (1998) find some net increases for the consumption of borrowers from Grameen (especially when the borrower is a woman: consumption rises by 18 cents for every dollar borrowed) and some impacts on schooling. But their econometric approach requires strong identifying assumptions, and the results are not

¹² One possible exception may be the Badan Kredit Desa program, also from Indonesia. The BKD gives loans that average about \$70 with three month terms and real interest rates just under 50% per year. But there is no documentation of client profiles nor studies of its social impacts nor evidence of its replicability. For “best practices” to be most convincing, priority should be given to better documenting cases like this.

evident when using simpler methods. Studies collected in Hulme and Mosley (1996) show that households participating in eleven programs in a range of countries had income increases that were 117 percent to 544 percent of the increases seen by control groups. The control groups often start out much poorer than the treated groups, and sample sizes are small, however, so these results are suggestive at best.

It may be, though, that the greatest impacts for poor households lie elsewhere. Like Pitt and Khandker, I find evidence that households with access to Grameen have far less variable consumption patterns across seasons than households without access. And Hashemi, Schuler, and Riley (1996) point to improvements in the social status of women and in measures of “empowerment”. Discussions of poverty alleviation are only now beginning to place a strong emphasis on reducing consumption variability and improving social status as ends in themselves, and it may be that financial approaches can help. With a client base that is 95% female, the Grameen Bank institutions like it have proven able to serve women in ways that have eluded other approaches.

If these initial results prove to be robust, are the benefits greater than the costs of subsidization? Having a constructive conversation will require a frank assessment of institutional progress to date. The Grameen Bank has been a true leader in the movement, providing hope and opportunity to its two million clients, and its model has now been replicated on four continents. But a close look at the accounting data from 1985 to 1996 shows that the Grameen Bank’s repayment rates appeared to be around 92%, rather than the 98% they reported, a difference that is large enough to critically undermine prospects for financial self-sufficiency.¹³ And while the bank reported \$1.5 million in profits

¹³ The financial calculations in this section are from Morduch (1998a). The reported rates of loans overdue take the amount of loans overdue over one year (or two years) as the numerator. The denominator is the

between 1985 and 1996, my calculations suggest that they would have posted losses of \$26-30 million in 1996 alone had they made timely provisions for overdue loans, not counted funds from grants as income, and not received cheap credit. Grameen paid an average of 3.7% on borrowed capital (a -1.7% real rate), and the total value of access to these soft loans was \$79.2 million between 1985 and 1996. An additional implicit subsidy of \$47.3 million was received by Grameen through access to equity which was used to generate returns below opportunity costs.¹⁴ Pulling the evidence together indicates that for 1985-96, Grameen would have faced a deficit summing to about \$150 million if they had had to pay “market” interest rates, make timely provisions for loan losses, and eschew direct grants. The deficit could have been eliminated by increasing nominal interest rates on its general loan product from 20% to 33% (and similarly raising charges elsewhere).¹⁵ But the bank is reluctant to do so for fear of undermining social impacts.

Even if the bank and programs like it are not the economic miracles that many have claimed, they may still do much good.¹⁶ So why have there not been cost-benefit studies of subsidization? Part of the answer is that they can be costly and difficult to do

size of the current portfolio. The recalculation instead uses the size of the portfolio at the time that the loans were made.

¹⁴ Although subsidies have increased over time in absolute quantities, the bank’s scale has grown even more quickly. As a result, the subsidy per dollar outstanding has fallen substantially, leveling off at about eight cents on the dollar.

¹⁵ Inflation has been about 5% recently. Alternatively, radically stripping down administrative costs would provide breathing room -- the path taken by the Association for Social Advancement (ASA), another large competitor. In the early 1990’s salary and personnel costs accounted for half of Grameen’s total costs, while interest costs were held below 25%. Decreasing wages has been impossible since they are linked to government wage scales, so the emphasis has had to be on increasing efficiency. By 1996, salary and personnel costs were roughly equal to interest costs (Morduch 1999a).

¹⁶ Although, it should be noted that their official rhetoric stays with the pursuit of financial sustainability. The Grameen Bank’s current path, pursuing cross-subsidization and alternative income generation projects (including an internet provision service and other for-profit spin-offs) is appealing in the medium term, but it has its own perils: the bank’s mission risks getting diluted and profitable sectors are vulnerable to competition over time.

well. But the problem also lies partly with the narrow set of “best practices.” In failing to acknowledge the profitability-poverty alleviation trade-off, “best practices” view profitability as sufficient evidence of success (e.g., CGAP 1996). Studies of social impacts have thus been seen as immaterial. Subsidies are most often seen as the root of problems, not as a possible part of the answer.

The anti-subsidy stance springs from three worries. First, donors can be fickle, and programs that aim to exist into the future need independence. Second, donor budgets are limited, restricting the scale of operations to the size of the dole. Self-sufficient programs, on the other hand, can expand to meet demand. Third, subsidized programs run the risk of becoming inefficient without hard bottom lines.

It is not obvious, though, that the three worries are founded. It is true that donors can be fickle, but governments may find value in subsidizing microfinance well after international agencies have moved on. If subsidized microfinance proves to deliver more bang for the buck than other social investments, should subsidies be turned down? Second, scale certainly matters, but small, well-targeted programs can also play critical roles in broader poverty alleviation strategies.

The third issue, the danger of slipping into inefficiency, has been demonstrated many times over by large public banks. Heavy, direct government involvement in credit programs has almost uniformly been a disaster in the past. But the key to efficiency is the maintenance of hard budget constraints, not necessarily profits. Several donors already use strict and explicit performance targets when lending to microfinance institutions, conditioning future tranches on performances to date. The lessons can be applied more widely. The kind of relationship that is needed would, for example, entail

clear and credible guidelines for letting subsidized programs fail when they fall below their given targets. Ongoing independent evaluations will be critical to this success.

Where does this leave the research agenda? The central issue is whether subsidized microfinance is better or worse than alternative anti-poverty programs, and cost-benefit studies are a priority. Those studies will need to treat counterfactual scenarios carefully. Those who argue against subsidies assert that approaching full profitability is unlikely to make a major dent in the depth of outreach. If true, subsidization can have large opportunity costs, and more poverty can be reduced without subsidies than with.

Much comes down to a debate about a parameter: the elasticity of credit demand with respect to the interest rate. And no one has much more than anecdotes to support their claims. Practitioners in Bangladesh tend to believe that the elasticity is high, and accordingly they keep interest rates relatively low (below 25% real). Practitioners in Latin America tend to believe that the elasticity is low, and they set interest rates as high as needed (BancoSol's real rate approaches 40%). Both could be correct in their contexts, but since comparisons are meaningless without controlling for client profiles by occupation and income, much more work needs to be done here. Until then, discussants are likely to continue talking at cross-purposes.

As with health policy, greater emphasis is also needed on issues of industrial organization. To what degree will subsidized programs crowd out private providers, both formal and informal? How can incentives in non-profits be maintained? To what degree will achieving financial sustainability ensure that microfinance institutions gain

substantially greater access to capital markets (especially when their main assets remain portfolios not backed by collateral)?

Finally, in viewing the promise of microfinance broadly, it is helpful to assess prospects in places where microfinance has not yet taken root. Programs have done best in reasonably stable, densely populated areas. Experience so far shows that microfinance faces its greatest challenges in places where the problem of poverty is deepest: in areas of low population density and areas with highly seasonal income patterns (e.g., in rural sub-Saharan Africa). Even in the best of circumstances, credit from microfinance programs helps to fund self-employment activities that most often supplement income for borrowers rather than drive fundamental shifts in employment patterns. It has not proven able to generate substantial numbers of new jobs for others. Making a real dent in poverty rates will require increasing overall levels of economic growth and employment generation, and microfinance cannot substitute for these processes.

Still, microfinance has made great headway in the face of widespread doubt, and it has opened up exciting possibilities. While hopes that microfinance institutions can effectively and widely serve core groups of poor households and also make a profit have yet to be realized, recent research suggests ways that incentives and efficiency can be maintained in non-profit programs. With creativity, the interests of both public and private sectors can be brought together in new approaches built on understandings of markets and informal institutions, backed by ongoing cost-benefit studies.

The concept and measurement of poverty

Until here, the specific definition of “poverty” has largely been left open. But the way that we think about poverty and its alleviation is conditioned by how we measure it. We most often measure poverty in a very narrow way, focusing on current deprivations in consumption or income. Measures like the United Nations Development Program’s Human Development Index (and, more satisfactorily, Morris’s Physical Quality of Life Index) attempt to broaden the concept. But by tossing measures of national income and social indicators into a single index with no theoretical rationale, the HDI offers little help in policy formulation (Ravallion 1997). If we are to move beyond traditional measures, it would be useful instead to gauge the condition of poor households along the dimensions of growth, vulnerability, mobility, and other features linked to policy issues -- treating these aspects specifically and separately.

Refining traditional income-based approaches is also critical, whether one views income as a means to achieving broader aspects of welfare or as an end in itself. Academic work on poverty measurement has yielded a broad array of measures from which to choose. Strikingly, it is the simplest measures, the headcount index (the fraction of the population living below a given poverty line) and the poverty gap, that continue to see most use. Their popularity remains despite cogent criticisms from academics -- notably that both measures are invariant to regressive transfers from poor households to less poor households (Watts 1968).¹⁷

¹⁷ The distributional-sensitivity implied by the transfer axiom can be important. Consider, for example, the effects of rice price increases in Java, Indonesia in 1981. Headcount measures of poverty fell since most poor households were farmers (net rice producers). However, distributionally-sensitive measures rose because the very poorest households were landless (net rice consumers) and the were made much worse off (World Bank 1990, box 2.2).

The academic agenda has followed Sen (1976) to develop indices that are instead rooted in axioms with broader appeal (the satisfaction of the Pigou-Dalton transfer principle, for example), or, following Atkinson (1987), to use notions of stochastic dominance to make rankings of poverty levels in income distributions without having to invoke particular poverty measures or, in some cases, even poverty lines. (See the surveys in Deaton 1997 and Lipton and Ravallion 1995). Both approaches can yield robust information on whether there was an overall improvement, a setback, or if the results are indeterminate -- which is sometimes all a policymaker needs to know.

So why don't the methods find greater use? I suspect that the answer is that policymakers typically desire to know much more than just simple rankings. Understandably, policymakers often want to be able to compare specific costs against specific benefits in order to weigh alternative policies. Debating these issues requires cardinal information, not just rankings of distributions. Increasingly, the compromise solution has been to measure poverty at varying poverty lines, so that observers can gauge the extent of "hardcore" poverty as well as overall poverty levels. Although not elegant, it is a simple step in the right direction.

The greatest pay-off will be in developing other indices like the headcount that are less *ad hoc* but still "meaningful" -- i.e., that yield cardinal information that can, in principle, map into (and expand) policy discussion (Foster 1994). Morduch (1998a) provides one example of the way that existing information can be aggregated to broaden perspectives on the poverty problem, and there are many other possibilities.

While the headcount index counts people and the poverty gaps adds up money, the average exit time proposed in Morduch (1998a), maps the income distribution to the

space of time. Specifically, it answers the hypothetical question: how long will it take, on average, for the population to reach a given poverty line if the income of all individuals grew at a given annual rate? The index thus provides a simple metric of the potential for economic growth to reduce poverty. Formally, if the income of household i grows at a constant positive rate g per year, the number of years that it would take to reach the poverty line, z , via growth is $t_i = [\ln(z) - \ln(y_i)]/g$ for households below the poverty line and $t_i = 0$ for those above.

In Bangladesh, for example, the median poor rural household in the 1988-89 Household Expenditure Survey spent Tk. 284 per month per capita relative to the poverty line of Tk. 370 (in 1989, Tk. 32.1 = \$1.) So, if their expenditures grew at 3% per year, it would take 8.8 years to reduce half of rural poverty through growth alone. While rough, this sort of calculation gives the contribution that growth can make to poverty alleviation, and it can be a useful input to policy discussions.

The average exit time is then simply t_i averaged over the entire population. The index turns out to be a simple ordinal transformation of the index proposed by Watts (1968) and thus has its appealing ordinal properties.¹⁸ Like the poverty gap, the measure describes an important “if-then” relationship and is based on “best case” assumptions. Even though growth is unlikely to be constant or uniform across households, by using “best case” assumptions rather than context-specific assumptions, the average exit time is clear, simple, and comparable across regions and time periods.

Expanding frameworks like this can bring into relief the next steps in understanding the dynamics of poverty – e.g., better understanding why the income of

some households grows faster than others, and why some are better able to take advantage of the fruit of broad-based development. As a starting point, measures of households' poverty over time will provide policymakers with a sense of the degree of poor households' mobility and vulnerability to adverse events. The inquiries should also highlight gender dimensions of poverty. Do women and girls bear disproportionate costs of coping with risk? Are they more vulnerable to downturns? How do gender roles and attitudes change through time?

Shaffer (1998) provides a comparison of a traditional poverty analysis focused on describing patterns of income versus a participatory poverty assessment that allows qualitative inputs from interviewees living in the same poor regions of Guinea. He finds that traditional metrics show little evidence of gender biases in poverty rates. But in the participatory assessment there was consensus that women were considerably worse off than men: first, women worked harder and, second, they had less say in family choices.

Using "non-traditional" approaches like participatory poverty assessments will help to bring these kinds of tensions to the light, but they are time-intensive and typically bases on small samples. The continuing challenge is to broaden the focus of large, high-quality household surveys.

Concluding thoughts: political incentives

The potential role for public-private partnerships has been raised above, but improving poverty alleviation policy will require far more than workable ideas, it will also depend on political commitment. Much of the discussion of international health

¹⁸ The measure satisfies the monotonicity transfer, and transfer-sensitivity axioms. As a result of its additively separable form, the measure is also decomposable into the population-weighted measures of sub-

policy leaves assumes the benevolence of bureaucracies. In contrast, one of the critical steps for the microfinance movement has been to try to avoid governments entirely.

For the most part, the leading players in microfinance are non-governmental organizations, backed mainly by private foundations and international donors. But this backing will inevitably weaken, and with most programs running at losses, the near-exclusive focus on externally-funded NGOs will have to soften. Limits arising from turning to a full-market orientation have been described above, so, alternatively, governments will have to be viewed as viable partners. This is already happening in China (with mixed results). These public-private partnerships will require a new and careful engagement between programs and governments.

Creating effective private-public relationships has to at least begin by taking government objectives seriously. The tension between political incentives and anti-poverty policy is made concrete by the recent backlash against targeted poverty alleviation programs.¹⁹ If political viability is a concern, targeted programs may be inferior to universal programs in which everyone, rich and poor, receives transfers. First, as it is sometimes said, “programs for the poor are poor programs.” Their political constituency is often weak and they are often administered poorly. Second, poor households may do better by getting a smaller share of a larger pie rather than a larger share of a smaller one. One example is given by the fiscal reforms in Sri Lanka in the 1970’s. The switch from universal food subsidies to targeted food stamps was followed by reductions in the budget, and the real value of the transfers was allowed to be cut in half through inflation. Anand and Kanbur (1980) argue that this was due to indifference

populations of the poor.

¹⁹ See, e.g., van de Walle (1998) and the comments by Lawrence Summers in Tanzi and Chu (1998).

on the part of the middle class and a weak voice on the part of the poor. As a result, poor households suffered absolutely despite better targeting (Lipton and Ravallion 1995).

Another example is given by social security in the United States, which is the most important “anti-poverty” program by far although it is designed as a universal pension program.

All the same, universal programs can be expensive; when budgets are tight and fiscal instruments are limited, some form of targeting is imperative. Cheap preventive health measures have successfully been provided universally. But universally subsidized clinical services or subsidized credit would surely be too costly and difficult to work. Where possible, one way forward is to ease tensions and build political commitments through working with the private sector to help provide the relevant public goods.

Another is to push to better understand the genesis of political constraints. New analytical tools developed under the banner of Positive Political Economy are helping researchers to understand voting patterns and bureaucratic decisions in contexts with a clear set of constituencies. When it comes to poverty alleviation, constituencies in support of aggressive policies are often weak, although the beneficiaries of the policies are often numerous. Understanding the lack of political resolve on poverty alleviation will be helped by taking a step backward from the basic positive political economy framework to better understand why poor households often mobilize along ethnic, religious, or regional lines (if at all), rather than along class lines. The inquiry may also yield an important by-product: through better understanding the genesis of political consciousness and the determination of allegiances, researchers may find a deeper appreciation of the condition of poverty itself.

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