Targeted Transfers in Poor Countries:
Revisiting the Trade-Offs and Policy Options

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Targeted Transfers in Poor Countries: Revisiting the Trade-Offs and Policy Options

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Abstract: Two trade-offs have been widely seen to severely constrain the scope for attacking poverty using redistributive transfers in poor countries: an equity-efficiency trade off and an insurance-efficiency trade off. This article argues that recent economic theories and evidence call into question the view that these trade-offs seriously constrain the scope for fighting poverty using transfers. The extent of the trade-offs is often exaggerated, and they may not even be binding constraints in practice given market failures. There appears to be scope for using carefully designed transfer schemes as an effective tool against both transient and chronic poverty. However, for the same factors that weaken the trade-offs also suggest that efficient redistributive policies might look rather different to the programs often found in practice.

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Introduction

The conventional wisdom in mainstream development policy circles is that income transfers to the poor, and safety net policies more generally, are at best a short-term palliative and at worst a waste of money. They are not seen as a core element of an effective long-term poverty reduction strategy.

What is this conventional wisdom based on? One commonly heard view is that the poor are roughly equally poor in the poorest countries, and there are so many of them and resources are so limited, that these policies are a non-starter. However, while the extent of poverty and the resource limitations are both clear enough, the other premise is not; it is now well established from household survey data that even in the poorest countries, the differences in levels of living amongst the poor can be sizable. [3]

Another long-standing critique of this class of policies has potentially more weight. This says that leakage of benefits to non-target groups and adverse incentive effects on the labor supply and savings of transfer recipients create a serious trade off against efficiency and growth, which is seen to be crucial to rapid poverty reduction. Even broadly supportive assessments of this class of policy interventions have seen their redistributive role as solely a matter of equity. [4] Similarly, it is often argued that the incentive effects of public efforts to provide better insurance can entail a cost to growth and, hence, longer-term poverty reduction.

These views are starting to be questioned at two levels. Firstly, evidence from careful evaluations has pointed to a number of success stories. Yes, there are programs that claim to be targeted to the poor but whose benefits are captured by others, and there are programs that

[3] For example, Smith and Subbarao (2002) give data for low-income countries indicating that the consumption of the poorest decile is generally 30-40% lower than the next poorest.

[4] For example, Barr (1992) describes the "inequality reduction" role of these policies as "almost entirely an equity issue" (p.746).

concentrate their benefits on poor people but have such low coverage that they achieve little impact overall. However, assessments of a number of programs have been quite positive — debunking claims that targeted programs in poor countries are inevitably plagued by leakage and high adminis trative costs.[5] Limited redistribution appears to be possible by this means. Secondly,

the presumption of an overall trade -off between redistribution or insurance (on the one hand) and growth (on the other) has come to be questioned. It is known that a market economy can generate too much risk and inequality, judged solely from the viewpoint of aggregate output. [6] This theoretical possibility has given a new lease of life to targeted transfers as the main instruments for publicly-provided "social protection" in poor countries, which is seen as being good for pro-poor growth (meaning growth that reduces poverty) by providing insurance or helping credit-constrained poor people be productive workers or take up productive opportunities for self-employment.[7]

This paper revisits the role of targeted transfers in poor countries in the light of the new theories on the social costs of uninsured risks and unmitigated inequalities. Recognizing that the policy implications depend crucially on whether there is good empirical evidence to support the theoretical arguments, the bulk of the first half of the paper discusses the evidence. The paper

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[5] Compilations of evidence on targeting performance can be found in Grosh (1995) and Coady et al., (2002). The latter paper compiles evidence on the targeting performance of about 90 programs; for over half, the share of program benefits going to the "poor" exceeded their population share. Of course, the quality of the data and methods varies considerably; the hope is that the differences average to zero.

[6] A number of excellent surveys are now available of this literature, notably Aghion et al., (1999), Bardhan et al., (2000), Broadway and Keen (2000) and Kanbur (2000). Specific papers that have fueled this questioning of the aggregate equity-efficiency trade-off include Dasgupta and Ray (1986), Dasgupta (1993), Galor and Zeira (1993), Bowles and Gintis (1996), Bénabou (1996, 2002), McGregor (1995), Hoff and Lyon (1995), Hoff (1996), Aghion and Bolton (1997), Aghion et al. (1999), Piketty (1997) and Bardhan et al. (2000).

[7] Policy-oriented discussions can be found in Holzmann and Jorgensen (1999), Bourguignon (2000), World Bank (2000, 2001) and Smith and Subbarao (2002) amongst others.

then takes up a key question for policy: Can the potential for efficient redistribution be realized in practice using targeted transfers, given the constraints faced in poor countries?

Revisiting the equity-efficiency trade -off

The presumption that there is an aggregate trade off between the twin goals of economic growth and lower inequality can be questioned for a number of reasons including the following:

?? Unless a person can initially assure that her basal metabolic rate (BMR) — the food energy intake needed to support bodily functions at rest — is reached there can be no productive activity of any sort. This "threshold effect" can mean that an economy generates massive involuntary unemployment under one distribution of assets, while a more equitable distribution yields full employment and high output (Dasgupta and Ray, 1986).

?? Credit market failures mean that some pe ople are unable to exploit growth-promoting opportunities for investment in (physical and human) capital. Aggregate output is the sum of the individual outputs, each depending on own capital, in turn determined by own wealth given the market failure. Then aggregate output depends on the distribution of wealth (Galor and Zeira, 1993; Bénabou, 1996; Aghion and Bolton, 1997, amongst others). With declining marginal products of capital, the output loss from the market failure will be greater for the poor. So the higher the proportion of poor people the lower aggregate output.

?? Distribution-dependent growth can also be generated by the political economy, notably the way the initial income or asset distribution influences the balance of power over public spending (Alesina and Rodrik, 1994; Persson and Tabellini, 1994).

?? Market failures can also create a link between spatial inequalities and growth. Geographic externalities can entail that living in a well-endowed area means that a poor household can eventually escape poverty, while an otherwise identical household living in a poor area sees

stagnation or decline (Jalan and Ravallion, 2002a). For this to be sustained, there must be impediments to factor mobility, such that marginal products of capital and labor come to depend causally on location. Then policies to redress spatial inequalities can compensate for the underlying factor market failures and so stimulate pro-poor growth. [8]

These arguments are fine in theory, but what does the evidence suggest? Compilations of aggregate data on growth and distribution suggest that countries with higher initial inequality tend to experience lower rates of growth controlling for other factors including initial income, openness to trade and the rate of inflation.[9] Indeed, if inequality is sufficiently high, countries that would have good growth prospects at low inequality may well realize little or no overall growth or progress in reducing poverty. It has been estimated that about one fifth of the date-country combinations in a data set for developing countries were cases in which inequality was so high as to stifle pro-poor growth (Ravallion, 1997b).

There are a number of concerns about the data and methods used in testing for an aggregate equity-efficiency trade off, and the biases can go either way. There are measurement errors in both the levels and changes in measured income inequality, including comparability problems between countries and over time arising from errors in survey data (both sampling and non-sampling errors) and heterogeneity in survey design and processing. [10] There are also concerns about latent effects in the growth process that might be correlated with initial inequality. The latter concern can be dealt with by allowing for country-specific effects, and then the adverse impact of inequality on growth has not been robust (Li and Zou, 1998; Barro, 2000;

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[8] This can be thought of as an example of a more general class of models in which memberships influence socioeconomic outcomes (Durlauf, 2001).

[9] Papers reporting this result include Persson and Tabellini (1994), Alesina and Rodrik (1994), Birdsall et al., (1995), Birdsall and Londono (1997), Clarke (1995), Perotti (1996), Deininger and Squire (1998), Deininger and Olinto (2000) and Knowles (2001).

[10] For further discussion of the data problems see Bourguignon (2000) and Kanbur (2000).

Forbes, 2000). However the signal-to-noise ratio could well be quite low in country fixed-effects regressions of growth on inequality, in which case sizable bias can be expected in such tests.

Another concern is that spurious inequality effects can arise from aggregation, given credit market failures.[11] Empirical results for rural China in Ravallion (1998) indicate that regional aggregation across the underlying micro-growth process hides the adverse effect of inequality on growth.

The choice of control variables in identifying the relationship is also open to question. For example, past tests of the effect of inequality on growth have controlled for the human capital stock, yet reducing investment in human capital is presumably one of the ways that inequality matters to growth.

The validity of the common assumption that initial inequality has a linear effect on aggregate growth is also questionable: Banerjee and Duflo (1999) find evidence that changes in income inequality are bad for growth, whichever way the changes go. Then policies that prevent rising inequality are good for growth, but those that reduce current inequality are not.

Given the concerns about tests using country-level data, it is promising that these theories also have some testable implications for micro data. The following are examples:

?? Farm yields (output per acre) in poor countries tend to be lower the larger the landholding; Binswanger et al (1995) review the evidence on this negative correlation, and discuss alternative explanations. To some extent the negative correlation reflects unobserved heterogeneity in land quality. However, there is a reasonable presumption and some evidence suggesting that the negative correlation stems from factor market failures due to asymmetric

[11] For example, consistent aggregation across mic ro units can require that we use the mean of log incomes in the aggregate growth regression. However, our data are logs of means. The difference between the two is a measure of inequality, which can be significant purely because of inconsistent aggregation.

information. Then inequality-reducing redistributions from large landholders to smallholders will raise aggregate output.

?? Theoretical models based on credit-market failures predict that individual income or wealth at one date will be an increasing concave function of its own past value. This is testable on micro panel data. Using such data, Lokshin and Ravallion (2001) found nonlinearity in household income dynamics for Hungary and Russia and Jalan and Ravallion (2001) found the same thing in panel data for rural China. [12] In all three countries, the type of nonlinearity suggests that the growth rate of mean household income will be lower the higher the initial inequality. Depending on the model specification, the results for rural China imply that inequality in current incomes lowers the mean in the following year by 4-7% at given current mean income (Jalan and Ravallion, 2001). (This is based on a simulation in which all incomes are replaced by the mean; naturally this is an upper bound that is unlikely to be attainable in practice.) These figures are lower than those obtained by Lokshin and Ravallion for Russia and Hungary, where inequality appears to be more costly to growth; inequality accounts for one fifth of mean current income in Hungary and about one tenth in Russia.

?? Some of the theories based on credit market failures also predict that the adverse impact of higher inequality on growth will be transmitted though the occupational structure of an economy (Banerjee and Newman, 1993). In testing this link, Mesnard and Ravallion (2002) find evidence that wealth inequality attenuates the aggregate level of business start-ups amongst return migrants in Tunisia.

[12] The dynamic panel data models in these studies were estimated by methods that allowed for the endogeneity of lagged income, latent individual effects and endogenous attrition.

?? There is empirical support for another link between inequality and growth, via the incidence of undernutriton. This is likely to lower aggregate productivity. For example, it has been found that undernourished farm workers in poor countries tend to be less productive (Strauss, 1986; Deolalikar, 1988). Also, malnutrition in children is thought to have adverse long-term consequences for their learning and hence future incomes; supportive evidence can be found in Bhargava (1999) (for Kenya), Glewwe et al. (2001) (for the Philippines) and Alderman et al. (2002) (Zimbabwe); in the latter case, the authors directly link the poor nutritional status of children to a drought. Higher income inequality is also likely to raise the incidence of undernutrition; Dasgupta and Ray (1986) show how this can happen in theory and there is supportive evidence in Ravallion (1992), using micro data for Indonesia.

?? Yet another link that has been studied empirically is through crime. Bourguignon (2001) discusses the theory and evidence suggesting that higher poverty and inequality can promote crime, which is surely costly to aggregate efficiency. Using micro data, Demombynes and Özler (2002) find evidence for South Africa that greater consumption inequality within and between neighborhoods leads to higher crime rates.

?? There is also supportive evidence from micro data on the costs of spatial inequalities. Using a six-year panel of farm-household data for rural southern China in the 1980s, Jalan and Ravallion (2002a) regress consumption growth at the household level on geographic variables, allowing for (nonstationary) individual effects in the growth rates. They find that indicators of geographic capital had divergent impacts on consumption growth at the micro level, controlling for household characteristics. Living in a poor area appears to lower the productivity of a farm-household's own investments, which reduces the growth rate, given restrictions on capital mobility. The results suggest that there are areas in rural China that are

so poor that the consumptions of some households living in them were falling even while otherwise identical households living in better off areas enjoyed rising consumptions. The geographic effects are strong enough to imply poverty traps.

?? One specific source of externalities is the local composition of economic activity. In the same setting in rural China, there is evidence that the composition of local economic activity has non-negligible impacts on consumption growth at the farm-household level (Ravallion, 2002). There are significant positive effects of local economic activity in a given sector on subsequent income growth from that sector. And there are a number of significant cross-effects, notably from farming to certain nonfarm activities. The sector that is found to matter most quantitatively is agriculture.

?? There is recent micro evidence pointing to the importance of other membership-based inequalities. For example, van de Walle and Gunewardena (2001) argue that market failures entail that ethnic identity influences living standards in Vietnam independently of observable household characteristics, and in ways that are suggestive of a self-reinforcing mechanism that perpetuates ethnic inequalities. Aga in, market failures appear to play a crucial role.

Before turning to the implications of all this for targeted transfers, another strand of recent literature needs to be brought into the picture. This concerns the possibility that uninsured risk can also be a negative factor to growth and poverty reduction in the longer term.

Revisiting the insurance -efficiency trade -off

By one view, publicly provided insurance encourages longer-term behaviors that promote continuing poverty. The classic example is a generous unemployment benefit system, which is thought by some observers to discourage personal efforts to find work. Similarly, public

provision of old-age pensions is thought to discourage savings. These are examples of how moral hazard generates an insurance-efficiency trade-off.

Are there also reasons to question the insurance-efficiency trade-off in poor countries? If there were such an aggregate trade off then one would expect poor people to be relatively well insured. That is plainly not the case. From what we know, it is difficult to argue that poor people in the world are typically over-insured from the point of view of making them less poor. There is now a body of empirical work demonstrating a high exposure to uninsured risk, notably in rural areas.[13] It is widely thought that the poor are more vulnerable to uninsured risk, and there is supportive evidence in the results of Jalan and Ravallion (1999) on the sensitivity of consumption to income shocks in rural China. There may well be scope for public efforts to better provide insurance to the poor, and targeted transfers are a likely instrument. However, will this come at a longer-term cost to poor people?

Recent literature has also pointed to various ways that uninsured risk can actually be a cause of chronic poverty. One argument postulates threshold effects in consumption giving rise to a "dynamic poverty trap." To outline a simple case, consider a worker who cannot borrow or save and derives income solely from labor. The worker's productivity depends on past consumption, and only if consumption is above some critical level is it possible to be productive and hence earn any income. Beyond this threshold, diminishing returns set it, meaning that extra current consumption raises future productivity but at a declining rate as consumption rises.

In this type of model, permanent destitution can stem from transient shocks and people can escape even extreme poverty with only temporary income support. These features arise from the possibilit y of multiple solutions for the income or wealth of a given family. There can be a

[13] Overviews of the theory and evidence can be found in Deaton (1992) and Besley (1995).

high-income solution and a low income one, both of which are dynamically stable, in that income will return to its initial value after a shock. Between these, one can expect to find an unstable third solution, below which incomes tend to fall toward the low-income solution, while above which they rise to the high-income solution. Thus, a household at the high-income solution who suffers a sufficiently large negative shock will see its income decline until it reaches the lowest income. And a household at the low-income solution will be able to escape poverty after even a transient income gain — but only if that gain is large enough to get past the unstable solution. This is an example of a "dynamic poverty trap." It implies that there will be large long-term benefits from institutions and policies that protect people from transient shocks, or provide temporary support for the poorest. Likewise, the absence of an effective safety net emerges as a cause of long-term poverty.

Are such arguments plausible? The very existence of a positive BMR means that a consumption threshold must exist, which is one requirement for the dynamic poverty trap described above whereby uninsured risk can create longer-term poverty. Unless a person can initially assure that BMR is reached there can be no productive activity of any sort. A threshold effect can also stem from the fact that in almost all societies one must be housed and adequately clothed if one is to participate in most social activity, including work. Low consumption creates social exclusion. For example, advocates of a proposed (untargeted) transfer program in South Africa claimed that the grant would be pr oductive, by allowing people to travel to find work and to buy clothes to wear to job interviews (*Washington Post Foreign Service*, July 9, 2002).

However, the case for intervention rests on believing that the threshold effect exists in the absence of intervention. That is less clear. There will be a high return to private co-insurance when there is a threshold effect. One can readily grant that (market or quasi-market) credit and

risk-sharing arrangements do not work perfectly, given the usual problems of asymmetric information. Yet they may still work well enough to make dynamic poverty traps a rarity.

The panel-data studies by Lokshin and Ravallion (2001) and Jalan and Ravallion (2001a) discussed above also tested for the existence of dynamic poverty traps. Household income or consumption was allowed to be a nonlinear function of its own lagged value with corrections for latent heterogeneity and measurement errors. On calibrating the model to a six-year household-level panel data (in which the same households are tracked over time) for rural southwest China, Jalan and Ravallion (2001a) did not find evidence of threshold effects in the dynamics (though they do find nonlinearity, as discussed above).[14] The same is true of Lokshin and Ravallion (2001), us ing data for Russia and Hungary. The results for all three countries suggest that people tend to bounce back from transient shocks. However, all three studies found that the speed of income adjustment to a shock is lower for the long-term poor (those with low steady-state income).[15] This can generate a process of income dynamics that might look like a poverty trap but is not.

If one takes it as given that without a (formal or informal) safety net there will be a low-level threshold effect on productivity, then these results suggest the existence of a roughly binding consumption floor achieved by existing (public and private) safety nets. Of course, that can still leave considerable uninsured risk, which is found to be the case in the same settings. [16]

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[14] Possibly the threshold effect takes longer than six years, though it is difficult to see why a sign of the productivity cost of low initial consumption would not be apparent over this time period.

[15] The steeper the recursion diagram the slower the speed of adjustment to a shock. Concavity of the recursion diagram implies that the speed of adjustment for a given household will be lower when it receives a negative shock than a positive shock. However, here we are concerned with differences in the speed of adjustment between households at different steady-state incomes. In all three countries, the speed of adjustment (evaluated in a neighborhood of the steady-state solution) was found to be lower for households with lower steady-state incomes.

[16] See Jalan and Ravallion (1998a) for China and Lokshin and Ravallion (2000) for Russia.

And the dynamics might be quite different for highly covariate risk, since the informal safety net arrangements may then break down, leaving the threshold exposed.

Uninsured risk can also perpetuate poverty via production and portfolio choices. A number of empirical studies have found costly behavioral responses to income risk in poor rural economies.[17] Outmoded agricultural technologies can persist because they are less risky (see, for example, Morduch, 1995). Risk can induce poor credit-constrained households to hold high levels of relatively unproductive liquid wealth. If borrowing is not an option when there is a sudden drop in income, then liquid wealth will be needed to protect consumption. For example, Indian farmers have been found to hold livestock as a precaution against risk even though more productive investment opportunities were available (Rosenzweig and Wolpin, 1993).

Whether it is the poor who incur the largest costs of uninsured risk is not as obvious as is often claimed by casual observers. Jalan and Ravallion (2001b) tested for portfolio and other behavioral responses to idiosyncratic risk in the same rural areas of southwest China. They confirmed other findings that wealth is held in unproductive liquid forms to protect against idiosyncratic income risk. However, consistently with expectations from their theoretical model, they found that neither the poorest quintile nor the richest appear to hold liquid wealth because of income risk; it is the middle -income groups that do so. It appears that the rich in this setting do not need to hold precautionary liquid wealth, and the poor cannot afford to do so.

Other potentially costly responses to risk identified in the literature include adverse effects on human capital. Jacoby and Skoufias (1997) find seasonal effects on schooling of income risk in semi-arid areas of India. But here too the evidence is mixed. Jalan and Ravallion (2001b) find that schooling and (hence) future incomes in their data for rural China are quite well

[17] Examples include Paxson (1992), Rosenzweig and Binswanger (1993), Rosenzweig and Wolpin (1993), Alderman (1996), Dercon (1998) and Fafchamps, Udry and Czukas (1998).

protected from the income and health risks faced by the household. Schady (2002) finds that schooling increased during Peru's macroeconomic crisis 1988-92, which he attributes to lower foregone income from attending school during the crisis.

Some of the evidence suggests large long-term costs to the poor from uninsured risk, but some does not. Of course, there are still welfare costs of uninsured risks facing poor people; the classic risk-aversion case for insurance remains even if risk is not a cause of chronic poverty.

Efficient redistribution through targeted transfers

Market imperfections point to a potential for efficient redistributions , which help alleviate the constraints arising from those market imperfections. This has a number of implications for policy. For example, it suggests that the common focus on the direct static incidence of transfers — how much goes to the poor versus nonpoor, for example — may miss important dynamic benefits from such policies, as argued by Holzmann (1990). It also holds implications for the design of targeted transfers, which this section will consider further.

Of course, finding that inequality and uninsured risk are more likely to be harmful to growth than growth promoting does not in itself imply that any policy to reduce inequality or risk will enhance growth and reduce poverty in the longer term. Indeed, the opposite can happen if the policy intervention comes at the expense of other factors that are also known to matter to growth. Reducing inequality by adding further distortions to external trade or the domestic economy will have ambiguous effects. By the same token, the best role for policy may not be to reduce current inequality, but rather to attenuate its adverse impacts, such as by alleviating the market failures that make inequality matter to aggregate welfare outcomes over time.

These observations warn for caution in drawing lessons for redistributive policy from the existing theory and evidence on the efficiency costs of inequality. However, as this section will argue, this new literature does hold some insights for policy.

The following discussion will not try to identify the best programs in the abstract, which is probably futile; recent evidence on the heterogeneity in the performance of the same program across different settings, and the lack of heterogeneity in the performance of different programs in the same setting, points to the importance of context and the weak power of generalizations about what works and what does not.[18] However, there is more scope for generalizations about principles for guiding the design of effective interventions in specific settings.

Objectives and constraints: Poverty reduction is typically seen to be the objective of targeted transfers in poor countries. "Poverty" is typically defined as the inability to afford specific consumption needs in a given society. There is a large literature on how this can be measured (for an overview see Ravallion, 1994). Here I shall only note some key issues that arise in the context of discussing targeted transfers.

Firstly, aggregate poverty is taken to be a population-weighted aggregate of individual poverty levels. Group memberships may still be causally relevant to poverty and figure prominently in targeted policies (as discussed below), but only in so far as those groups have high concentrations of individual poverty or group memberships influence other constraints on policy-making, such as political economy constraints (whereby certain groups have disproportionate influence). Such "individualism" in defining the welfare objectives of policy is standard practice though it can be questioned; see for example Kanbur (2000).

[18] For an example of the heterogeneity in performance of the same program see Galasso and Ravallion (2002); for an example of how similar program performance can be in the same setting see Pritchett et al (2002).

Secondly, while targeting is a potential instrument for enhancing program impact on poverty, the most targeted program need not be the one with the greatest impact on poverty (van de Walle, 1998). This can happen when finer targeting undermines political support for the required taxation (Besley and Kanbur, 1993; Gelbach and Pritchett, 1997; De Donder and Hindriks, 1998), or when targeting generates deadweight losses (Ravallion and Datt, 1995).

Thirdly, while one might agree that poverty reduction is the objective, there is still an issue of how impact on poverty today should be weighed against poverty in the future. Theories of efficient redistribution point to the importance of reaching those who are locked out of credit and insurance, leading to under investment in physical and human capital and hence higher future poverty. Theory and policy have often assumed that this is the same set of people as the currently "poor" by some agreed definition, but that cannot be presumed to hold in reality. For example, while household poverty is correlated with children's school attendance, there are non-negligible numbers of poor children at school, and plenty of kids from non-poor families not at school.[19] The currently poor need not be the same set of people as those excluded from credit and insurance, and so vulnerable to future poverty.

Finally, it should not be forgotten that the scope for efficient redistribution and insurance is constrained by the information available and administrative capabilities for acting on that information. Problems of information and incentives are at the heart of policy design.[20] Informational constraints are particularly relevant in underdeveloped economies. In rural sectors and the urban informal sector, policies such as a progressive income tax are seldom feasible

[19] See, for example, the evidence for Mexico in Sadoulet and de Janvry (2002).

[20] Overviews of the arguments and evidence can be found in Besley and Kanbur (1993), Lipton and Ravallion (1995, section 6), van de Walle (1998), Kanbur (2000) and Coady et al., (2002).

(though of course such policies are themselves second-best responses to information constraints even in rich countries). Means tests pose similar problems.

The following discussion will focus on how the main types of policies found in practice deal with these constraints.

Indicator targeting: The problems of observing incomes and the incentive effects of means testing have led to various schemes that make transfers according to covariates of poverty, such as living in a poor area, age (both children and the elderly), and landlessness in rural areas. Tools exist for finding optimal allocations to minimize a poverty index based on such poverty proxies and for measuring the maximum impact on poverty (Ravallion, 1993).

Policy makers seem often to have over-optimistic views on how well they can reach the poor by administrative targeting based on readily observable indicators. Here there are some sobering lessons from empirical research. Even using a comprehensive, high-quality, survey one can rarely explain more than half the variance in consumption or income across households. And while household consumption is probably not a random walk, it is difficult to explain more than one tenth of the variance in future changes in consumption using current information in a panel survey. [21] Add to this the fact that one must base targeting on observations for the whole population — not just a sample survey — and that there will be incentives to distort the data when it is known why it is being collected, one must expect potentially large errors in practice when using indicator targeting to fight chronic or (especially) transient poverty.

But it can also be argued that the benefits of indicator targeting are often underestimated. Past work has typically viewed indicator targeting as a static non-behavioral problem; for example, location is simply one of the proxies used to indicate poverty. The possibility of

[21] For a direct test of the random walk property (as implied by the permanent income hypothesis under certain conditions) see Bhargava and Ravallion (1993), using panel data from rural India.

poverty traps arising from market failures offers a different perspective, pointing to the potential for dynamic efficiency gains. Targeting poor areas or minority ethnic groups — that would otherwise be locked out of economic opportunities — may well have considerably greater impact than suggested by the role of these characteristics as a purely statistical indicator of poverty would suggest.

The evidence to support that claim is still scant and often inconclusive. Some observers have pointed to evidence that a share of the transfers received by the poor is often saved or invested as indicating that the transfers reduce chronic poverty. [22] However, this could just as well reflect recipients' perceptions that the transfers are transient; there can be saving from a short-term transfer even when it has no impact on long-term income.

Longitudinal ("panel") data can offer more convincing evidence, but such studies are still scarce. In one example, household panel data collected over six years was used to study the consumption impacts of China's massive anti-poverty program targeted to poor areas. It was found that the program raised long-term consumption growth rates, implying quite reasonable rates of return over time (Jalan and Ravallion, 1998). In another example, Garces et al. (2002) studied panel data spanning 27 years for the U.S. and found longer-term gains in schooling and earnings from a pre-school program targeted to poor families in the U.S.

Productivity effects have been emphasized in schemes that redistribute between landholding classes. Landless households in rural areas tend to have a high incidence of poverty (in South Asia particularly). Ravallion and Sen (1994) study the effects of redistribution using transfers between landholding classes in rural Bangladesh, allowing for the higher productivity (output per acre) of smaller holdings. They find that these effects do increase the poverty-

[22] See, for example, Devereux (2002) using data for transfer programs in Mozambique, Namibia and Zambia.

reducing impact of land-based targeting, though the extra impact is not large, given that land holding is not by any means a perfect poverty indicator , even in rural Bangladesh.

Specific demographic groups (both children and the elderly) have also been targeted, and here too there can be efficiency benefits.[23] For example, South Africa has a pension scheme that gives cash transfers to the elderly; Duf lo (2000) finds positive external benefits to child health within recipient families.

Finding that transfers based on indicators of current poverty can bring long-term benefits, given factor market imperfections, does not mean that they are the best policy option for this purpose. Policies to increase factor mobility can also have a role. Incentives to attract private capital into poorly endowed areas, and/or encourage labor migration out of them, could well be more poverty reducing than targeted transfers. There has been very little work on these policy choices, and one often hears overstated claims by advocates. For example, it is far from clear that that out -migration policies from poor areas are highly substitutable with transfers to those areas, which can be crucial to fostering out migration, such as by promoting better schooling or making livelihoods less vulnerable to temporary labor shortages.

Conditional transfers: In the 1990s, a number of new transfer programs emerged that combine indicator targeting, often using community groups, with explicit attempts to enhance capital accumulation of the poor. [24] One class of these programs combines transfers with schooling (and sometimes health-care) requirements. [25] An example is Bangladesh's Food-for-

[23] Here too measurement problems loom large. Allowing for scale economies in consumption can readily reverse the common finding that larger households tend to be poorer based on consumption or income per person (Lanjouw and Ravallion, 1995).

[24] McGregor (1995) provides an interesting theoretical analysis of the policy choice between a pure transfer policy versus schooling plus transfers, suggesting that the latter option is likely to dominate.

[25] The term "conditional transfers" is widely used in recent policy-oriented discussions to refer exclusively to such programs. However, this is rather odd usage, given that it would seem that all transfer programs in practice have eligibility conditions of some sort.

Education (FFE) Program, which relies on community-based targeting of food transfers that aim to create an incentive for reducing the cost to the poor of market failures. FFE was one of the earliest of many school-enrollment subsidy programs now found in both developing and developed countries. Other examples are Progresa in Mexico and Bolsa Escola in Brazil; in these programs, cash transfers are targeted to certain demographic groups in poor areas conditional on regular school attendance and visits to health centers.

If one was concerned solely with current income gains to participants then one would clearly not want to use school attendance requirements, which impose a cost on poor families by inducing them to withdraw children or teenagers from the labor force, thus reducing the (net) income gain to the poor. This type of program is clearly aiming to balance a current poverty reduction objective against an objective of reducing future poverty. Given the credit market failure, the incentive effect on labor supply of the program (often seen as an adverse outcome of transfers) is now judged to be a benefit — to the extent that a well-targeted transfer allows poor families to keep the kids in school, rather than sending them to work.

There is evidence of significant gains from Bangladesh's FFE program in terms of school attendance with only modest forgone income through displaced child labor (Ravallion and Wodon, 2000). The program was able to appreciably increase schooling, at modest cost to the current incomes of poor families. Mexico's Progresa program has also been found to increase schooling, though the gains appear to be lower than for FFE (Behrman et al., 2001; Schultz, 2001). This is probably because primary schooling rates are higher in Mexico, implying less value-added over the (counter-factual) schooling levels that would obtain otherwise. Sadoulet and de Janvry (2002) show that there would be greater efficiency gains (though higher

schooling) from Progresa if the program had concentrated on children less likely to attend school in the absence of the program, notably by focusing on the transition to secondary school.

Relying on administrative targeting based on poverty indicators naturally constrains performance. Even the best indicators available are far from perfect predictors of poverty at one date, and are typically far worse at predicting changes in welfare *ex ante*. Administrative inflexibility further constrains the scope for effective insurance by these means. Next we will consider some ways developing country governments have used to try to improve performance at reaching the poor within prevailing informational constraints.

Community-based programs: In recent times, community participation in program design and implementation has been a popular means of relieving the informational constraint. The central government delegates authority to presumably better-informed community (governmental or non-governmental) organizations, while the center retains control over how much goes to each locality. The main concern has been capture by local elites; the informational advantage of community-based targeting may well be outweighed by an accountability disadvantage. Good evidence on performance is still scant.[26] Reliable generalizations are also likely to be illusive given that there are good reasons to expect heterogeneity across communities in the impacts of the same program. Relevant sources of heterogeneity identified in the theoretical literature include local asset inequality (Bhardan and Mookerjee, 2000; Bénabou, 2000) and the extent of interlinkage in local social networks (Spagnolo, 1999).

In the design of Bangladesh's FFE program, economically backward areas were supposed to be chosen by the center leaving community groups —exploiting idiosyncratic local information— to select participants within those areas. Galasso and Ravallion (2002) use survey

[26] For an excellent survey of the arguments and evidence on community-based targeting see Conning and Kevane (1999).

data to assess FFE incidence within and between villages. Targeting performance was measured by the difference between the realized per capita allocation to the poor and the non-poor. The study found that targeting performance varied greatly between villages. Higher allocations from the center to a village tended to yield better targeting performance, but there was no sign that poorer villages were any better or worse at targeting their poor.[27]

The results also suggest that inequality within villages matters to the relative power of the poor in local decision-making. Galasso and Ravallion found that more unequal villages in terms of the distribution of land are worse at targeting the poor — consistent with the view that greater land inequality comes with lower power for the poor in village decision making. This suggests a mechanism whereby inequality is perpetuated through the local political economy; the more unequal the initial distribution of assets, the better positioned the nonpoor will be to capture the benefits of external efforts to help the poor.

Self-targeting: The informational constraints on redistributive policies in poor countries have strengthened arguments for using self-targeting mechanisms. The classic case is workfare, in which work requirements are imposed on welfare recipients with the aim of creating incentives to encourage participation only by the poor and reduce dependency on the program. [28]

An example is the famous Employment Guarantee Scheme (EGS) in Maharashtra, India. This aims to assure income support in rural areas by providing unskilled manual labor at low wages to anyone who wants it. The scheme is financed domestically, largely from taxes on the relatively well-off segments of Maharashtra's urban populations. The employment guarantee is a novel feature of the EGS, which helps support the insurance function, and also helps empower

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[27] On the theoretical arguments linking targeting performance to poverty see Ravallion (1999a).

[28] Besley and Coate (1992) provide a formal model of the incentive arguments.

poor people. In practice, however, most workfare schemes have entailed some rationing of the available work, often in combination with geographic targeting.

Workfare schemes generally have a good record in screening the poor from non-poor, and providing effective insurance against both covariate and idiosyncratic shocks.[29] They have provided protection when there is a threat of famine (Dréze and Sen, 1989; Ravallion, 1997) or in the wake of a macroeconomic crisis (Jalan and Ravallion, 2002b, for Argentina and Pritchett et al., 2002, for Indonesia, both in the late 1990s). Design features are crucial, notably that the wage rate is not set too high. For example, Ravallion et al., (1993) provide evidence on how the EGS responds to aggregate shocks, and on how its ability to ins ure the poor was jeopardized by a sharp increase in the wage rate.

There are other ways to use incentives in program design to assure self -targeting of the poor. For example, the rationing of food or health subsidies by queuing can also be self-targeting (Alderman, 1987), as can subsidizing inferior food staples or packaging in ways that are unappealing to the nonpoor.

Self-targeted schemes can face a sharp trade-off between targeting performance (meaning their ability to concentrate benefits on the poor) and net income gains to participants, given that these programs work by deliberately imposing costs on participants. Self-targeting requires that the cost of participation is higher for the non-poor than the poor (so that it is the poor who tend to participate), but it may not be inconsequential to the poor.

A potentially important cost to workfare participants in developing countries is forgone income. This is unlikely to be zero; the poor can rarely afford to be idle. An estimate for two villages in Maharashtra, India found that the forgone income from employment on public works

[29] See, for example, Ravallion and Datt (1995), Subbarao (1997), Teklu et al., (1999), Jalan and Ravallion (2000), Chirwa et al., (2002).

schemes was quite low — around one quarter of gross wage earnings; most of the time displaced was in domestic labor, leisure and unemployment (Datt and Ravallion, 1994). By c ontrast, for a workfare program in Argentina — the Trabajar Program — it was estimated that about one half of gross wage earnings was taken up by forgone incomes (Jalan and Ravallion, 2002b). In the Trabajar Program, the income lost to participating workers was probably compensated by indirect gains to the poor as residents of the neighborhoods in which the work was done, typically involving the creation and maintenance of valued local infrastructure. Calculation of the cost -effectiveness of this program suggest that it still only costs about $1.00 to $1.50 to transfer $1.00 to the poor even taking account of the deadweight loss due to costs of participation. [30] However, workfare programs have traditionally under-emphasized the potential value to the poor of the assets created, which appear often to mainly benefit the non-poor or be of little value to anyone (see, for example, Gaiha, 1996, writing about Maharashtra's EGS.)

The Trabajar program illustrates the potential for a new wave of workfare programs that emphasize asset creation in poor communities, again compensating for the market failures that help create poor areas in the first place. There is typically much useful work to do in poor neighborhoods — work that would probably not get financed otherwise.

In macroeconomic or agro-climatic crises, it is to be expected that the emphasis will shift to current income gains, away from asset creation — implying, for example, more labor-intensive sub-projects on workfare programs (for further discussion see Ravallion, 1999b). However, the appropriate trade-off between the objective of raising current incomes of the poor versus reducing future poverty will never be a straightforward choice.

[30] These are the author's calculations using the methods outlined in Ravallion (1999b).

Sustainability and political economy: While theory points to efficiency gains from permanent redistribution, the implications of short-term redistributions are less clear. The insurance gains from targeted transfers also depend on the sustainability of programs across different states of nature, including coverage across groups facing different risks. In these respects the record is mixed. Some programs like the EGS have been sustained over long periods, and appear to have provided effective insurance. This can help assure sustainability, since (given that there is idiosyncratic risk) the potential set of beneficiaries is much larger than the actual set at any one date. It clearly also helps if the non-poor see benefits from effective social protection, such as in attenuating migration to cities in times of stress in rural areas. However, other designs for targeted transfer schemes have been more short-lived. Sustainability depends on having broad political support, which can be at odds with fine targeting. So there may well be a trade -off between sustainability and the extent of redistribution by this means.

Political economy clearly looms large in this area of policy making. The fact that inequality is inefficiently high need not mean that there will be an effective political response to lower it. Bénabou (2000) ha s demonstrated theoretically that an economy with persistently high inequality, and little effort to reduce it, can coexist with one that is otherwise identical in fundamentals but in which active redistribution keeps inequality low. External agents, including the International Financial Institutions, may well have an important role in using their allocative choices and dialogues on country policy to promote efficient redistributive policies, particularly in high inequality countries, where adoption appears less likely. Similarly, there is a role for the central government in promoting efficient redistribution in high-inequality communities.

Conclusions

Transfers to the poor have often been motivated by inequality or risk aversion. A trade -off with aggregate output is expected. A body of recent theoretical and empirical work has questioned whether there is such a trade-off. This new research has argued that there can be too much uninsured risk and inequality, when judged solely from the viewpoint of aggregate output. For example, credit market failures can mean that it is the poor who are unable to exploit new economic opportunities; the more poor people, the fewer the opportunities that get exploited and so the lower the rate of growth. Concentrations of poverty in poor (natural and man-made) environments can also be sustained by factor-market failures given geographic externalities.

This body of theory and evidence offers a new perspective on social protection policies in poor countries, suggest ing that there is scope for using these policies to compensate for the market failures that help perpetuate poverty, particularly in high-inequality settings. There have been a number of seemingly successful transfer schemes that reflect such an emphasis. However, in drawing implications for future policy there are a number of caveats. Not all the evidence has been supportive of the theories, or suggestive of large potential gains, even when the theory is supported qualitatively by the data. It is also difficult to pre -judge the best policy instruments for achieving efficient redistribution. For some purposes of anti-poverty policy — “helping those who cannot help themselves” — there is no obvious alternative to targeted transfers, barring unacceptable neglect. But, more generally, it is not clear that targeted transfers dominate other options. These may include direct efforts to make factor markets work better for the poor (such as by fostering new institutions for credit provision, or by better enforcement of property rights), supply-side interventions in schooling and health-care, or even untargeted transfers. And the way transfers are financed in practice will clearly matter. In theory there can

be potential Pareto improvements from transfers fina nced out of the subsequent income gains to poor recipients; but finding a feasible means of such cost recovery is another matter.

While acknowledging these caveats, this tour of the new arguments and evidence on efficient redistribution and insurance points to a confident rejection of the generally negative stereotype of this class of interventions that has been around in mainstream development policy discussions for some time. The trade-off against efficiency has probably been exaggerated, and the record on performance is better than some (seemingly widely held) perceptions would suggest. It is time for a pragmatic and open-minded approach to this class of interventions, recognizing the potentially important role they can play, but using careful design and evaluation to assure that the potential is realized.

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