

# Bailing out the World's Poorest

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## Abstract

While the 2008 financial crisis is global in nature, it is likely to have heterogeneous welfare impacts within the developing world, with some countries, and some people, more vulnerable than others. It also threatens to have lasting impacts for some of those affected, notably through the nutrition and schooling of children in poor families. These features point to the need for a differentiated social policy response, aiming to provide

rapid income support to those in most need, while preserving the key physical and human assets of poor people and their communities. The paper points out some mistakes in past crisis responses and identifies key design features for safety net programs that can help compensate for the likely welfare losses in the short-term while also promoting longer-term recovery.

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This paper—a product of the director's office of the Development Research Group—is part of a larger effort in the department to use research findings to better inform policy discussions about social protection. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at [mravallion@worldbank.org](mailto:mravallion@worldbank.org).

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# Bailing out the World's Poorest

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While the current financial crisis started in US housing and financial markets it could soon reach deeply into the lives of many of the four fifths of humanity living in developing countries—the vast majority of whom live below the US poverty line, with a sizeable minority living in conditions of extreme poverty that are unknown in North America or Western Europe.<sup>1</sup> And this crisis comes in the wake of sharp spikes in food, fuel and fertilizer prices in 2007-08, which clearly increased poverty in the world.<sup>2</sup>

Western governments have learnt from experience that a slow and/or failed response to a crisis will have deeper and lasting impacts on their citizens' lives. Similarly, inaction to protect the world's poorest, or the wrong policies for doing so, risk not only a large increase in poverty in the wake of a crisis but a more lasting legacy of lower growth and greater poverty. Current responses have implications well after the crisis headlines have vanished.

The right policies could go a long way toward mitigating the welfare impacts on the world's poorest families. An effective response package should be consistent with restoring economic growth, and may even help promote more rapid growth in the future, by helping to redress some of the inequalities of opportunity that constrain both growth and poverty reduction.<sup>3</sup> By contrast, the wrong policies could actually make things worse in the longer term.

The responses of both developed and developing countries matter. Recessions in the US and Europe will probably reduce demand for exports from the developing world, and this could be made worse if OECD governments introduce trade protection. Also, foreign aid flows will be under pressure as OECD countries focus on stimulating domestic demand. Foreign investment in the developing world will probably also decline as internationally mobile capital switches to the new safe havens in the US and Europe, or if there are concerns about future defaults in some countries, possibly reflecting past experience.

As in past crises, there is a risk of myopic policy responses. The scale, visibility and potential political costs of the 2008 crisis could well prompt short-term responses that neglect longer-term implications for economic development. Amartya Sen has argued that the (democratic) governments of India have been more responsive, and effective, in addressing (highly visible) famines than in fighting pervasive chronic poverty and hunger.<sup>4</sup> The same kind of “headlines bias” in policy making can yield crisis-response policies that come at a high cost to longer-term development goals, including poverty reduction.

This paper focuses on the principles that should guide safety-net policy making in a crisis, and the lessons from past experience on what works and what does not. It is argued that an effective public safety net is an important element of a sound domestic policy response to a crisis, even in the poorest countries. The social protection (SP) response should aim to compensate the poorest losers while promoting their longer-term recovery. A tradeoff can be expected between impact now and impact in the future, although the terms of that tradeoff depend crucially on the policies adopted. Past evaluative research points to policy options worth considering—including policies that are feasible in poor countries.

### **An economy-wide shock with heterogeneous and long-lasting impacts**

The fact that the crisis that came to a head in 2008 is global in nature will constrain the set of options for response. It is hard to pool risks when everyone is under threat. The scope for external assistance to the developing world from OECD countries struggling to stabilize their own economies may well be more limited, although the IMF and World Bank appear to be in a good position to help.

Not everyone is vulnerable. Some developing economies face more worrying implications for their real economies than others, due to differences in their dependence on foreign trade and investment, and the fragility of their financial sectors (stemming in part from differences in their direct exposure to the US subprime sector). Differences in pre-crisis savings rates and in the accumulation of foreign reserves also mean that some countries face more severe fiscal adjustment problems than others. A handful of developing countries have scope for a significant fiscal stimulus.

And even an economy-wide shock is likely to have heterogeneous impacts within any given country, depending on (*inter alia*) household wealth, demographics, education attainments and location. Poverty incidence is likely to rise in many developing countries during the crisis, but the impact will be greater in some countries than others.

The impacts will not be confined to the poorest, and not all of the poor will be affected. Indeed, some will be protected by the same things that have kept them poor in the first place—geographic isolation and poor connectivity with national and global markets. Research on Indonesia's severe economy-wide crisis of 1998 found sharp but geographically uneven increases in poverty, reflecting both the geographic unevenness in the economic contraction and

the differing initial conditions at local level.<sup>5</sup> Proportionate impacts on poverty were greater in initially better off and less unequal districts. Another study of the same crisis found that most households were impacted, but that it was the urban poor who suffered most; the ability of poor rural households to produce food mitigated the worst consequences of the high inflation.<sup>6</sup> By contrast, the rural poor bore a heavier burden of the shock in Thailand around the same time, in part because of their greater integration with the urban economy than in Indonesia.<sup>7</sup>

Such research findings lead one to expect that, at any given level of living, some people will lose more than others and some may even gain. Thus it can be deceptive to focus solely on an aggregate measure of income poverty, for which the impact might be modest and yet there are large welfare changes under the surface. For example, while the 1998 financial crisis in Russia saw only a modest 2% point increase in the poverty rate, longitudinal data (tracking the same households before and after the crisis) revealed substantial losses and gains.<sup>8</sup>

The welfare losses can last a lot longer than the crisis itself. The poorest can be particularly vulnerable to even small shocks. Productive activity is simply not feasible at low levels of nutrition; this “threshold effect” means that a negative shock of sufficient size can push a poor household past its tipping point and so put it on a path to destitution, while the same household bounces back in due course from even a slightly smaller shock.<sup>9</sup>

Research on past crises has found lasting impacts. A study of the longer-term impacts of the East Asia crisis found that about half of Indonesia’s poverty count in 2002 was attributed to the 1998 crisis even though macroeconomic recovery had been achieved well before 2002.<sup>10</sup> Many of the things poor families have to do to help protect their current living conditions have lasting consequences. Debts often rise; key productive assets (such as livestock or land) are sold. And kids are taken out of school to save money and add to the family’s current earnings. And these adjustments are often difficult to reverse.

The impacts of a crisis on children are understandably of great concern. When poor families are compelled to cut short their kids’ schooling in response to a shock this creates a lasting impact on poverty since school drop outs tend to earn less as adults. This impact will also vary, depending on the extent of the shock and initial conditions. Declining wages make child labor relatively less attractive, and schooling more so, but (at the same time) lower parental incomes increase the value of the extra money that children can bring to the family budget if they work. The balance of these forces will vary from place to place. There is evidence that in low

income countries schooling tends to decline in a macroeconomic or agro-climatic crisis while in middle- and high-income countries schooling rates increase.<sup>11</sup> Impacts on the nutrition of young children in poor families are also of special concern. A number of research findings suggest that poor nutrition in the early years of life retards child growth, cognitive and learning ability, schooling attainments and (in all likelihood) earnings in adulthood.<sup>12</sup>

While there are persuasive ethical arguments for focusing the social policy response on the poorest amongst those who are vulnerable, there are also instrumental arguments for such a focus, related to the longer term implications of the crisis. The expectation is that it will be the children of poorest families who are most likely to be taken out of school and see a decline in their nutritional and health status. Thus the shock can create more persistent poverty across generations unless short-term assistance is directed to the poorest amongst those whose livelihoods are under threat.

## **Tradeoffs**

Tradeoffs between social protection and other development goals, including longer-term poverty reduction, loom large during a crisis. Safety net policies are only one element of the set of policy responses to a crisis. Other policies to restore macroeconomic stability and economic growth, and assure that the financial system is sound, will be crucial. Three generic tradeoffs have been prominent in past policy discussions: the equity-efficiency tradeoff, the insurance-efficiency tradeoff and the inter-temporal tradeoff.<sup>13</sup>

With regard to the equity-efficiency tradeoff, some observers and policy makers have seen safety nets for the poor as economically inefficient and so harmful, or at best neutral, to economic growth, which is seen as the only thing that really matters to sustainably reducing poverty. However, there are reasons to question this view. This is part of a broader questioning of the separation often made between social protection and broader development goals.<sup>14</sup>

In the short-run, when a public fiscal stimulus in a crisis is concentrated on the poorest it appears more likely that it will bring a larger short-term gain to aggregate effective demand, and hence output. This rests on the (seemingly plausible) assumption that poorer people tend to be more constrained—notably due to credit market failures—and so have more unexploited opportunities for rapid consumption or investment when extra cash becomes available. By contrast, short-term transfers to the rich are more likely to be seen as transient income gains—

assuming that the rich can easily attain their inter-temporal optimum—and will be saved in forms that do not translate into new investment for some time, also given that the formal banking system will generally not be functioning well in a crisis.

The idea of an inevitable long-run tradeoff between economic growth and greater equity can also be questioned.<sup>15</sup> The inevitable threshold effects on productivity when nutrition levels fall too low mean that high inequality is detrimental to aggregate output; an economy can generate massive unemployment under one distribution of assets, while a more equitable distribution yields full employment and higher output.<sup>16</sup> Credit market failures leave unexploited opportunities for investment in (physical and human) capital. The loss of output from such market failures is likely to be greater for the poor, so poverty may well impede aggregate growth. Similar results can stem from the political economy, notably the way that the initial asset distribution influences the balance of power over public spending. High inequality can also make it harder to achieve efficiency enhancing cooperation amongst people, such as providing public goods or achieving policy reform.<sup>17</sup>

Turning to the second tradeoff, bailouts in a crisis raise concerns about moral hazard. Using public money to help those who took high risks, and lost out, can encourage excessively risky behavior in the future. While this is a genuine concern with respect to bailout packages for financial institutions, it carries rather less weight when talking about bailing out the poorest in the wake of the current crisis. It was not their risky behavior that precipitated the crisis, though (without effective public action) they may well end up carrying a significant share of the welfare impact, including beyond the crisis.

More fundamentally, uninsured risk spills over into production and investment decisions of poor people in ways that can severely impede longer-term prospects of escaping poverty. (This is not a new point; indeed, the idea has roots in the writings of classical political economists such as Adam Smith and Turgot.<sup>18</sup>) Lack of insurance for the poor is arguably a more important reason for persistent poverty than too much insurance. (I return to this point.)

The third tradeoff is essentially between poverty now and poverty in the future. As we have seen, the first two tradeoffs have dynamic dimensions of this sort, such as when greater equity today comes (possibly) at a cost to efficiency in the future. But this third tradeoff arises in many other forms and in most aspects of the policy responses to a crisis, including macroeconomic policies and financial sector policies, as well as social protection.<sup>19</sup> As noted in



the introduction, there is a risk that the political focus on responding to a severe current crisis will come with a neglect of longer-term implications.

The following discussion will point to a number of examples of this dynamic tradeoff in SP responses to a crisis. It will be evident that the terms of this tradeoff often depend crucially on program design features. For example, by adding conditions on who receives a transfer payment (such as women or men) and under what conditions (by adding work requirements or other conditions such as that children remain in school) one can help reduce the potentially adverse effects of current transfers on future poverty.

These and other tradeoffs will be faced in formulating policy responses to a crisis. Governmental budget constraints will loom large, forcing hard choices and creating a pressing need for cost effective interventions. The choices made in program design reflect, and influence, these tradeoffs. The rest of this paper points to some relevant lessons from past research that might help guide public action, recognizing the likely tradeoffs.

### **Objectives for social policy in a crisis**

The special role of the safety net in this context is insurance for those who are relatively uninsured or face high costs of self insurance. Of course, even poor people typically find some means of insurance, on their own and in groups, such as through village-based risk-sharing. But that is no excuse for inaction. The covariate nature of an economy-wide shock creates less scope for co-insurance (relative to idiosyncratic shocks) and mutual insurance arrangements may well break down when faced with a large external shock.<sup>20</sup> For example, research on the impact of the 1995 “Peso crisis” in Mexico (resulting in a 9% decline in GDP in that year) revealed that many of the normal coping strategies of poor households (such as seeking credit, extra work or private transfers) failed during this large macro shock.<sup>21</sup> Also, the means available to poor people for self-insurance are often quite inefficient and costly. For example, outmoded agricultural technologies persist because they are less risky and credit is scarce. Similarly, credit-constrained households need to hold unproductive liquid wealth, such as high foodgrain stocks.<sup>22</sup> Poor families must pull their kids out of school to provide labor when there is an income shortfall. As long as one is averse to risk, one will be willing to incur a cost of insuring against it; but that cost can often be very high for poor people.

It is sometimes argued that public safety nets should avoid displacing indigenous arrangements for self-insurance and risk-sharing. That is the wrong way to think about it. If the existing arrangements are more costly than a publicly-provided alternative then displacement is a good thing. The aim for safety net policy is then to reduce the costs of insurance to allow gains to those currently insured, and broader coverage.

Providing effective insurance also helps assure sustainability beyond the crisis. Since there is always some degree of idiosyncratic risk, the potential set of beneficiaries is much larger than the actual set of participants at any one date. And political support from this larger set of potential beneficiaries can help sustain the program.<sup>23</sup>

If it is to provide effective insurance, the safety net must respond flexibly to the needs of the poor, and not rely heavily on administrative discretion. When we look at the “safety nets” found in practice, few serve this insurance function well since they do not adapt readily to changing circumstances. Relief transfers, workfare and credit are often rationed amongst those in need, and hence provide unreliable insurance. Nor is the rationing necessarily targeted to those in need. Unless the public safety net is genuinely state-contingent it cannot help much in reducing the costs of insurance facing the poor.

In discussions of safety-net reform, much attention is often given to the problem of how to concentrate benefits on poor people and avoid “leakage” to the non-poor, i.e., how to achieve better “targeting.” The attraction of targeting lies in the fact that the aggregate “poverty gap” (sum of distances below the poverty line) is often rather small. The poverty gap for the developing world using the \$1.25 a day poverty line—the average poverty line of the poorest 15 countries—is less than 1% of the GDP of the developing world.<sup>24</sup> And it is one third of one percent of global GDP. If one could only fill those gaps exactly, it seems that poverty would be eliminated at modest cost.

However, it is far from clear what is so “perfect” about “perfect targeting.” Importantly, its incentive effects would discourage longer-term poverty reduction. Indeed, in its purest form, perfect targeting based on actual incomes creates a poverty trap in that recipients face a 100% marginal tax rate, which is clearly a disincentive against taking any effort to escape poverty by one’s own initiative. The final cost of bailing out the poorest could then be very high indeed; the policy itself would have created a large part of the poverty problem it was designed to address. The optimal rate of benefit withdrawal is almost certainly a good deal less than 100%.<sup>25</sup>

However, the incentive effects of effort at perfect targeting may well be a moot point in practice, given that the information constraints are often so severe. Perfect targeting—filling all poverty gaps exactly—requires a means test based on accurate income information. And to provide effective insurance the information needs to be updated regularly. And the information problems are compounded in a crisis, in which it is hard to know where the short-term impacts are greatest.

There can be little doubt that some of the policies that are implemented in the name of “social protection”—such as the generalized food and fuel subsidies (or any subsidy to a normal good) that are still found in a number of developing countries—do not have an incidence that favors the poor, and that there are potential gains from better targeting. However, it should not be forgotten that poverty reduction is the objective of a safety net, not finer targeting *per se*. Empirical research has confirmed theoretical arguments that finer targeting is not necessarily consistent with a greater impact on poverty, and may even have perverse effects, such as when fine targeting undermines political support for the program.<sup>26</sup> Sustainability depends on having broad political support, which can be at odds with fine targeting. Also coverage of the poor is often weak in finely targeted programs.<sup>27</sup> Avoiding leakage to the non-poor often requires that help is severely rationed even amongst those in obvious need. Furthermore, better targeted programs are not necessarily more cost-effective. A recent study of a large transfer program in China found that standard measures of targeting performance are uninformative, or even deceptive, about the impacts on poverty, and cost-effectiveness in reducing poverty.<sup>28</sup> In program design and evaluation, it is better to focus directly on the program’s outcomes for poor people than to rely on prevailing measures of targeting.

It must also be acknowledged that conventional assessments of “targeting performance” typically rely on rather narrow definitions of household “consumption” or “income,” based on survey data. While they may accord well with how an economist would define these concepts given the available data, it is quite possible that policy makers have a different and broader concept in mind, reflecting (say) living standards over a longer time period or the assets held by the household. The program’s apparent “targeting errors” could simply reflect the fact that the survey-based measure of “income” is not a sufficient statistic for deciding who is really “poor”.<sup>29</sup>

While better targeting can sometimes help, it is not the objective. Yet policy-oriented discussions continue to make the mistake of assuming that more targeting is always better.

### **To help protect the poorest, start by doing less damage during the crisis**

One would hope that fiscal and monetary policies would be counter-cyclical—in particular, providing a stimulus to economic activity when a financial crisis spills over to the real economy. However, past experience for developing countries suggests the opposite: that fiscal (and monetary) policy is procyclical (and also positively correlated with capital inflows).<sup>30</sup> Timing appears to be a common problem; too often the stimulus has its impact after the crisis is over. Until a more rapid and automatic counter-cyclical response is feasible in developing countries, it may well be less damaging to avoid attempts at discretionary fiscal policies.

In a crisis there is also a compelling case for believing that the composition of public spending and taxation should change in favor of the poor, although here too the evidence on past performance is not encouraging. However, the case for a pro-poor fiscal adjustment does not only hold when the economy can afford, and attain, a counter-cyclical fiscal stimulus; it also holds when the country is compelled to implement an aggregate fiscal adjustment, or it adopts a fiscally-neutral response in the aggregate.

The case for more pro-poor spending (or more pro-poor tax cuts) in a crisis is in part ethical—on the grounds that poorer victims of the crisis should be given higher weight. But there is also a macroeconomic case, in that the impact of the stimulus on aggregate demand (consumption and investment) will be greater given that the poor tend to be more credit-constrained and so will have more unexploited opportunities for using some extra money. By contrast, a temporary increase in the types of public spending (or tax cuts) that favor those who are not credit constrained—which will tend to be high income groups—will tend to be treated as a transient income gain and so it will be saved as cash or in bank deposits. In due course, there will be an investment response from such extra savings by high income groups, but it is unlikely to be rapid, particularly in a financial crisis when the financial system is in turmoil and lenders are cautious.

However, such a shift in the composition of spending in favor of the poor does not come easily. Indeed, there is evidence from some settings that pro-poor spending is also procyclical—that it is the types of spending that benefit non-poor people that are most protected during

contractions, with the brunt of fiscal adjustment born by the poor.<sup>31</sup> A study for Argentina found that social spending was not protected historically.<sup>32</sup> The study also found that a relatively well-protected share of the benefits from the country's main anti-poverty program went to the non-poor. This appears to be a political economy constraint. Research for Peru found that public spending on health contracted sharply during the crisis in the late 1980s, and this appears to have been part of the explanation for the sharp rise in infant mortality during the crisis.<sup>33</sup> Similarly, in a study of Russia's financial crisis of 1998, it was found that safety net spending had contracted, but that a seemingly modest expansion in total outlays on the safety net—less than would have been needed to restore aggregate outlays to their level two years earlier—would have been sufficient to avoid the immediate increase in income poverty.<sup>34</sup>

Social spending decisions have become increasingly decentralized within developing countries. Local resource constraints appear to be playing a more important role, with corresponding concerns about inadequate spending in poor areas. In this setting, achieving more pro-poor and countercyclical spending on safety nets will probably call for greater flexibility and geographic targeting of federal spending during the crisis. This can be thought of as a form of insurance, and there have been cases in which central governments have used explicit insurance triggers to fund local programs. For example, under the FONDEN program in Mexico, the federal government essentially acts as an insurance provider for local governments, thus pooling risk.<sup>35</sup> (FONDEN deals mainly with repairs to infrastructure stemming from natural disasters.) This can work well when the shocks are confined to specific areas (though covariate within those areas); many natural disasters fall into this category. Dealing with an economy wide crisis is clearly a rather different matter, though the likely heterogeneity in impacts of such a crisis suggests that there may still be considerable scope for geographically targeted responses.

In practice, a common problem is the lack of reliable information on what components of spending are most important to the poor. The incidence of the benefits from public spending can be difficult to assess rigorously, although governments and citizens often have (strong) priors, which may well contain information but still need to be tested against data.<sup>36</sup> The case of assigned programs (in which some individual units participate and some do not) is somewhat easier than economy-wide programs, although even for assigned programs one cannot assess incidence without knowing impact, which requires a sound method for assessing the counterfactual of what the participant's income (or other relevant outcome indicator) would have

been in the absence of the program.<sup>37</sup> An important part of crisis preparedness is having made the investments in data and evaluative research (both quantitative and qualitative) that are needed to have a reasonable idea of which public programs will need to be protected at a time of crisis; naturally that investment brings benefits for policy making at normal times.

Policy mistakes can stem from poor information about program performance. Ten years ago it was rare to have good survey-based evidence on who participates in specific programs and the impacts on poverty. Thankfully that has changed, though there is still much to be learnt.

### **Options for social policy reform**

If an adequate safety net exists then of course it should be supported for protecting the poor in the crisis. If it does not exist then a crisis may well create the political space for creating it. However, crises have given birth to some of the worst “social protection” policies, as well as some of the best. Governments have sometimes been drawn into introducing generalized food and fuel subsidies that have come at a huge fiscal and economic cost, and are not easily reversed, yet have had at best modest impact on poverty. Yet some of the best safety net programs also emerged from crises, going back (at least) to the famine relief programs created in India in the late nineteenth century. Some developing countries have been able to turn a crisis into an opportunity for dismantling inefficient subsidies in favor of more effective safety net programs. For example, during the Tequila financial crisis of 1994, the Government of Mexico realized that it lacked an effective safety net for the country’s poor, which led to the famous *PROGRESA* program (which I return to).

The starting point for many developing countries will be a weak safety net, with limited potential for protecting the poor from an economy-wide crisis. There will also be limited information concerning the likely profile of welfare impacts, though an effort should still be made to anticipate the types of households and places that will be most vulnerable, using the best available data and analytic tools. Crises have often presented opportunities for setting up better information systems for monitoring progress and for future preparedness.

In thinking about reform options let us start with the simplest scheme. A “poll transfer” provides a fixed cash transfer to every person, whether poor or not. For any given method of financing, this would have a better incidence than an *ad valorem* subsidy tied to consumption of normal goods. Indeed, a poll transfer can actually be more cost effective in reducing poverty

than even a well-targeted scheme with high administrative costs and other deadweight losses (such as income foregone or other costs in complying with the conditionalities imposed on a more sophisticated transfer scheme).<sup>38</sup> A poll transfer is unlikely to have a large impact on incentives to work, including when work opportunities improve as the recovery gets underway, although a complete assessment of the implications for efficiency (and equity) must take account of the methods of financing the poll transfer. The administrative cost would probably be low, though certainly not zero given that in some low income countries, some form of personal registration system would be needed to avoid “double dipping” and to assure that larger households receive proportionately more. However, in poor countries that are severely affected by the crisis, a poll transfer could be very costly, depending on the benefit level and method of financing.

The cost can probably be reduced by a sensible degree of targeting. This requires careful consideration of the costs and benefits of each option in specific settings. There is now much experience to draw on. Readily measurable proxies for poverty are widely used for targeting. Geographic targeting has been common. Other indicators have also been used such as gender of the recipient, family size and housing conditions.<sup>39</sup> These targeting methods can be thought of a “proxy means test” in which transfers are allocated on the basis of a score for each household that can be interpreted as predicted income or consumption, based on readily observed indicators. Depending on how it is designed, this type of scheme can have better incentive effects than perfect means testing and have a higher impact on poverty for a given outlay than a poll transfer.

A recently popular version of this type of scheme requires the children of the recipient family to demonstrate adequate school attendance (and health care in some versions). These are called Conditional Cash Transfer (CCT) programs; the conditions are sometimes called “co-responsibilities.” Early influential examples were the *Food-for-Education Program* in Bangladesh, Mexico’s *PROGRESA* program (now called *Oportunidades*) and *Bolsa Escola* in Brazil. Clearly, if one was concerned solely with current income gains to participating households then one would not impose school attendance requirements, which entail a cost to poor families by incentivizing them to withdraw children or teenagers from the labor force, thus reducing the (net) income gain to the poor.

Such programs are aiming to strike a balance between reducing current poverty and reducing future poverty. Given credit market failures, 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. Notice too that concerns about distribution within households underlie the motivation for such programs; the program’s conditions entail that relatively more of the gains accrue to children. While various economic rationales can be given for imposing conditions on transfers, possibly the main reason in practice is to do with the political economy of safety nets: taxpayers and donors are often more supportive and generous when they know that recipients are compelled to do something to help themselves escape poverty in the future.

Targeting the transfers made as part of a fiscal stimulus to women in poor families can also improve the terms of the tradeoff between current and future poverty reduction. The impact on current aggregate demand in the economy is probably no different when the transfers go to women versus men, but transfers to women will probably benefit children more—in terms of their nutrition, health and schooling—which will aid future poverty reduction.<sup>40</sup>

There is evidence from impact evaluations that CCT schemes bring non-negligible benefits to poor households, in terms of both current incomes and future incomes, through higher investments in child schooling and health care.<sup>41</sup> Expanding the coverage and increasing the benefit levels on CCTs has been one response to crises, particularly in Latin America.<sup>42</sup> For example, Mexico was able to help redress the adverse welfare impacts of the recent rise in food prices by implementing a one-time top up payment to *Oportunidades* participants.

There has been some evaluative research on specific programs introduced during past crises. One example studied a CCT program in Indonesia, the *Jaring Pengamanan Sosial*, and found that it appreciably reduced school drop out rates amongst beneficiaries during the 1998 financial crisis; the program had greatest impact at the lower secondary school level where children are most susceptible to dropping out.<sup>43</sup> Another study examined the response of Russia’s transfer-based public safety net to the 1998 financial crisis. The response of the public safety net helped reduce the impact of that crisis. It was estimated that the incidence of income poverty would have been two percentage points higher without the changes in the safety net.<sup>44</sup>

A common drawback of targeted cash transfer schemes in practice is that they tend to be relatively unresponsive to changes in the need for assistance. A previously ineligible household



that is hit by (say) unemployment of the main breadwinner may not find it easy to get help from such schemes. Efforts should be made to re-assess eligibility in the wake of a crisis.

One way to assure that the safety net provides effective insurance—a genuine “safety net”—is to build in design features that only encourage those in need of help to seek out the program and encourage them to drop out of it when help is no longer needed given better options in the rest of the economy. The beauty of this approach is that it elegantly solves the severe information problem of targeting in a crisis (or even in normal times).

Subsidies on the consumption of inferior goods (for which demand falls as incomes rise) are self-targeted to the poor. The problem is that not many goods are inferior, although there have been cases in which this was feasible. Tunisia was able to make its food subsidies more cost-effective in reducing poverty by switching to inferior food items, combined with quality differentiation through packaging.<sup>45</sup> Subsidizing inputs to production by traditional farmers in developing countries can also embody a degree of self-targeting, since farmers tend to be poorer than average, though the benefits may well be higher amongst the relatively better-off farmers.

The classic example of self-targeting is a “workfare” program (variously called “relief work” or “public works” programs; “food for work” programs also fall under this heading). Workfare has been widely used in crises and by countries at all stages of development. Famously, workfare programs were a key element of the New Deal introduced by US President Franklin D. Roosevelt in 1933 in response to the Great Depression. They were also a key element of the Famine Codes introduced in British India around 1880 and have continued to play an important role to this day in the sub-continent. Relief work programs have helped in responding to, and preventing, famines in Sub-Saharan Africa.<sup>46</sup> During the East Asian financial crisis of the late 1990s, both Indonesia and Korea introduced large workfare programs, as did Mexico in the 1995 “Peso crisis,” Peru during its recession of 1998-2001 and Argentina in the 2002 financial crisis.<sup>47</sup>

The macroeconomic response and how labor markets work might be expected to influence the weight given to public works programs versus other SP responses. If inflation runs out of control (such as during the Latin American crises of the 1980s) then real wages will probably fall sharply (as they did in Latin America in the 1980s) in which case there may be rather little effect on unemployment rates. On the other hand, if inflation is kept under control then unemployment can be expected to rise sharply—pointing to a more important role of public

works programs. However, such programs have also proved to be a useful SP response in situations in which open unemployment rates are low, such as in rural areas of low-income countries. Nor is it necessarily the case that the program should be targeted to the sector where unemployment rates are highest once general equilibrium effects are taken into account.<sup>48</sup>

Workfare programs can be responsive to differences in need—both between people at one date and over time for a given person—provided the program is designed and implemented well. Public spending on labor-intensive public works projects, such as building rural roads, can combine the benefits of an aggregate fiscal stimulus with those of income support for poor groups. The essential idea is that those seeking relief must work to obtain support, and the work is used to help affected areas rebuild after the disaster, or to develop badly needed public works.

A famous example is the *Employment Guarantee Scheme* (EGS) in Maharashtra, India, which started in the early 1970s.<sup>49</sup> 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 poor people. In 2004, India introduced an ambitious national version of this scheme under the *National Rural Employment Guarantee Act* (NREGA).<sup>50</sup> This promises to provide up to 100 days of unskilled manual labor per family per year, at the statutory minimum wage rate for agricultural labor, to anyone who wants it in rural India. The scheme was rolled out in phases and now has national coverage.

Research on these programs has indicated that sizeable income gains to participants, net of their foregone incomes from any work they have to give up to join the program. One study of Maharashtra's EGS found that the foregone income was about one quarter of the wage rate; by re-allocating work within the household, poor rural families were able to come close to maximizing the net income gain.<sup>51</sup> Research on Argentina's *Trabajar* program suggested larger foregone income for participants, around half of their earnings.<sup>52</sup> Another study of the same program found that the income losses to those who left the program were sizable, representing about three-quarters of the gross wage on the program within the first six months, though falling to slightly less than one-half over 12 months.<sup>53</sup>

Another example studied Argentina's main social policy response, *Plan Jefes y Jefas*, to the severe economic crisis facing the country in 2002-3.<sup>54</sup> The program aimed to provide direct

income support, with work requirements, for families with dependents for whom the head had become unemployed due to the crisis. The program reduced aggregate unemployment, though it attracted as many people into the workforce from inactivity as it did people who would have been otherwise unemployed. While there was substantial leakage to formally ineligible families, and incomplete coverage of those eligible, the program did partially compensate many losers from the crisis and reduced extreme poverty.

There is less evidence on the benefits to the poor from the assets created, and this can matter to whether or not they dominate cash transfer schemes in terms of their impact on poverty for a given budget outlay. An *ex ante* assessment of the scheme proposed under India's NREGA suggested that unless the assets created are of sufficient value to the poor the scheme would be unlikely to dominate even a poll transfer in terms of its poverty impact.<sup>55</sup>

Here there can be an important tradeoff between the twin goals of achieving short-term flexibility in response to current needs versus longer-term goals in the fight against poverty. In particular, absorbing large amounts of labor in a relief work program may well mean that the technologies employed use too little capital to create durable assets. It is very likely that the optimal labor intensity of relief work will be higher than normal during a crisis. However, it also appears likely that some of the schemes found in practice have given too little weight to asset creation. Balancing these two goals is difficult, but both are of value, even in a crisis.

### **The ideal safety net**

A comprehensive safety net will almost certainly require a combination of transfers (in cash or food) and relief work. The latter helps the working poor while a complementary set of transfers in cash or food can be targeted to specific groups who either cannot work (due to physical incapacity, including poor nutritional status) or should not be taken out of other activities (notably school) to join relief work. The experience of the (generally successful) CCT programs in developing countries points to some key design features, including a sensible degree of targeting and focusing the co-responsibilities of participating parents on the most critical points in their decision making about their children; for example, in many developing countries a critical point will be the decision to enter secondary school on graduating primary school.

Given its ability to respond rapidly to help those in greatest need of income support, a relief work program is likely to remain a key component of the crisis response. But here the

design features are especially important. Drawing on the experience of some of the more successful workfare programs, some guidelines can be offered.

An ideal workfare scheme would guarantee low wage work on community-initiated projects.<sup>56</sup> The low wage rate assures that the scheme is self-targeted in that the non-poor will rarely want to participate. The federal or state government announces that it is willing to finance up to (say) 15 days a month of work on community projects for any adult at a wage rate no higher than the market wage rate for unskilled manual labor in a normal year. The work is available to any adult at any time, crisis or not. This would extend the coverage of the public works schemes often found in current relief efforts to include normal times at which demand would be much lower, but almost certainly not zero. It would also relax the eligibility restrictions often found on relief work. It would rely very little on administrative discretion in access to the program (either in turning it on and off, or determining who gets help.) As long as the guarantee is credible it will also help reduce the longer-term costs of risk facing the poor, as discussed above. Thus it can help in fighting chronic poverty as well as transient poverty in a crisis.

The work provided should only be on technically feasible projects, though the work may well be more labor-intensive in its production methods than is normal in the setting. This may (again) entail a tradeoff between the objectives of reducing current poverty versus future poverty. The right choice will depend on the setting.<sup>57</sup>

The work should ideally be proposed by bona fide community groups in poor areas, to help assure that the relief effort is responsive to the needs of local communities and that the assets created are of value to the poor. The local community group would propose specific projects, documenting what exactly would be done, at what cost, and how many workers will be employed under each project. The workers need not come from the same community (to allow flexibility, and help respond to idiosyncratic risk). The proposals would be sent to a central agency to assess if they qualify under the rules of the program, with full public disclosure. The center should only contribute to the non-wage costs if the community putting up the proposal is a designated poor area, as indicated by a credible “poverty map;”<sup>58</sup> non-poor areas should finance their own non-wage costs. The center should provide assistance to communities to both set up community groups and in designing projects. If the project is in a poor areas then the center can also help in securing any extra funding needed for non-wage costs beyond that available through the safety net program; this might come from other public programs or the private sector. The

projects can include training in basic literacy and numeracy skills for adults, together with appropriate specialized knowledge, such as drought-avoidance lessons for farmers. The wage rate for training should be set somewhat lower than other work.

Argentina's *Trabajar* program illustrates the potential for a new wave of workfare programs that emphasize asset creation in poor communities. The program's design gave explicit incentives (through the *ex ante* project selection process) for targeting the work to poor areas, 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. Similarly to CCT programs, this type of program aims to combine an impact on current poverty consistent with longer-term poverty reduction through asset creation. Local community groups (non-governmental community councils) should maintain a shelf of useful projects in poor areas. With wide public knowledge of the existence of a federal employment guarantee on community work, and the permanent councils ready with a shelf of such projects, the basis for a rapid response would be generated from the bottom up, rather than relying on administrative discretion from the top down.

Setting the wage rate is a key to success. A relatively low wage rate assures that the work reaches those in need, and as many as possible, and it protects incentives to take up regular work when available. Against these advantages, a low wage rate naturally means less of a gain to participants, many of whom may be in great need. Taking account of this tradeoff, a wage rate on a par with the going wage for unskilled agricultural labor is probably a good benchmark in most countries. This may well be lower than the statutory minimum wage rate, which is often set above market wage rates, and is thus not binding on the market, given weak enforcement.

When the crisis is over, the safety net will no longer be needed for the majority of workers and (provided the wage rate is not set too high) they will automatically return to regular work. However, when the wage rate for relief work is too high, or the assets created are of too little value, then a cash transfer program is probably a better option. There is evidence of considerable rationing of employment in Maharashtra's EGS in the wake of a sizeable increase in the EGS wage rate, above market wage rates for agricultural labor.<sup>59</sup>

The budget allocation to such a scheme must be sufficient to assure that anyone who wants work at that wage rate and is signed up to a viable community works project will get the

work. The attraction of a workfare program as insurance will be lost if the work must be rationed.

When the workfare scheme is well-designed, a rapid expansion of demand for relief work is a good signal that other transfers need to kick in as well, targeted to specific groups who either cannot work, or should not be taken out of other activities (notably school) to join relief work.

## **After the crisis**

Even a highly successful effort to protect the living standards of the world's poorest from the global crisis will leave a reality in which poor people face multiple risks on a daily basis well after this crisis. If the crisis does create the opportunity for supporting or building an effective safety net then it should become permanent and automatic, dealing simultaneously with crises and the more routine problems of transient poverty in normal years. It will be an integral part of the country's poverty-reduction strategy, recognizing that the impact of a shock is intimately connected to deeper problems of underdevelopment: credit and insurance market failures, underinvestment in local public goods, and weak institutions. The synergies between safety net interventions and longer-term poverty reduction can be reinforced by explicit design features, such as incentives to encourage the children of poor families to stay in school or emphasis on building assets of value to poor communities.

The budgetary cost of such a permanent safety net need not be very high and it could well bring longer-term efficiency gains to the economy. The budgetary outlay could well be highly variable over time in risk-prone settings, entailing some fiscal stress. There will no doubt be relatively low frequency events, such as the current global financial crisis, for which extra external aid will be needed, and certainly justified on moral grounds when it was the rich countries of the world that were largely responsible for the crisis. However, the domestic resources should be sufficient to cover a normal sequence of shocks as well as modest demand in normal years.

## **Notes**

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<sup>1</sup> In 2005 96% of the developing world's population lived below \$13 per day, which is the average US official line, while 25% lived below \$1.25 per day, which is the average line for the poorest 15 countries; see Shaohua Chen and Martin Ravallion, "[The Developing World is Poorer than we Thought, but no Less Successful in the Fight Against Poverty](#)," Policy Research Working Paper 4703, 2008.

<sup>2</sup> See Marcos Ivanic and Will Martin, 2008, "[Implications of Higher Global Food Prices for Poverty in Low-Income Countries](#)," Policy Research Working Paper 4594, World Bank, Washington DC.

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- <sup>3</sup> On inefficiencies, and (hence) costs to economic growth of inequality of opportunity in the developing world see the 2006 [World Development Report: Equity and Development](#), New York: Oxford University Press.
- <sup>4</sup> See, for example, Amartya Sen, *Development as Freedom*, Oxford: Oxford University Press, 1999.
- <sup>5</sup> See Martin Ravallion and Michael Lokshin, “Lasting Impacts of Indonesia’s Financial Crisis,” *Economic Development and Cultural Change*, 2007, 56(1), pp. 27-56.
- <sup>6</sup> See Jed Friedman and James Levinsohn, “The Distributional Impact of Indonesia’s Financial Crisis on Household Welfare,” *World Bank Economic Review*, 2002, 16(3): 397-424.
- <sup>7</sup> See Fabrizio Bresciani, Daniel Gilligan, Gershin Feder, Tongroj Onchan and Hanan Jacoby, “Weathering the Storm: The Impact of the East Asian Crisis on Farm Households in Indonesia and Thailand.” *World Bank Research Observer*, 2002, 17, pp. 1-20.
- <sup>8</sup> See Michael Lokshin and Martin Ravallion, “Welfare Impacts of Russia’s 1998 Financial Crisis and the Response of the Public Safety Net”, *Economics of Transition*, 2000, 8(2), pp. 269-295.
- <sup>9</sup> This is an example of a dynamic poverty trap associated with multiple equilibria; for an overview of such models see Partha Dasgupta, “Poverty Traps”, in David M. Kreps and Kenneth F. Wallis (eds) *Advances in Economics and Econometrics: Theory and Applications*, Cambridge: Cambridge University Press, 1997.
- <sup>10</sup> See Ravallion and Lokshin, *ibid*.
- <sup>11</sup> See Francisco H.G. Ferreira and Norbert Schady. “[Aggregate Economic Shocks, Child Schooling and Child Health](#).” Policy Research Working Paper 4701, August 2008.
- <sup>12</sup> See for example, Harold Alderman, John Hoddinott and Bill Kinsey, “Long-Term Consequences of Early Childhood Malnutrition,” *Oxford Economic Papers* 2006, 58(3): 450-74. Also see Ferreira and Schady *op cit*.
- <sup>13</sup> For an overview of the arguments and evidence on these tradeoffs in a developing-country context see Martin Ravallion, “Transfers and Safety Nets in Poor Countries: Revisiting the Tradeoffs and Policy Options,” in Abhijit Banerjee, Roland Benabou and Dilip Mookerjee (eds), *Understanding Poverty*, Oxford University Press, 2006.
- <sup>14</sup> See for example Andy Norton, Tom Conway and Mick Foster, “Social Protection: Defining the Field of Action and Policy,” *Development Policy Review* 2002, 20(5), pp.541-567. Also see the discussion in Stephen Devereux, “Can Social Safety Nets Reduce Chronic Poverty?”, *Development Policy Review* 2002, 20(5), pp.657-675.
- <sup>15</sup> On the adverse effects of high inequality on economic growth see Philippe Aghion, Eve Caroli and Cecilia Garcia-Penalosa, “Inequality and Economic Growth: The Perspectives of the New Growth Theories”, *Journal of Economic Literature* 1999, 37(4), pp. 1615-1660. Also see Chapter 4 of the 2006 [World Development Report](#), *op cit*.
- <sup>16</sup> For further discussion of the how this can happen see Partha Dasgupta and Debraj Ray, “Inequality as a Determinant of Malnutrition and Unemployment”, *The Economic Journal* 1986, 96, pp. 1011-34.
- <sup>17</sup> For a survey of the arguments and evidence on this point see Pranab Bardhan, Samuel Bowles and Herbert Gintis, “Wealth Inequality, Wealth Constraints and Economic Performance,” in A.B. Atkinson and F. Bourguignon (eds) *Handbook of Income Distribution Volume 1*. Amsterdam: North-Holland, 2000.
- <sup>18</sup> See Emma Rothschild, “Social Security and Laissez Faire in Eighteenth-Century Political Economy,” *Population and Development Review*, 1995, 21(4), pp. 711-744.
- <sup>19</sup> This tradeoff is one of the themes identified in past World Bank research on crises; see Development Research Group, “Lessons from World Bank Research on Financial Crises,” Policy Research Working Paper 4779, World Bank, Washington DC (<http://econ.worldbank.org/docsearch>).
- <sup>20</sup> See Stephen Coate and Martin Ravallion, “Reciprocity Without Commitment: Characterization and Performance of Informal Insurance Arrangements,” *Journal of Development Economics*, 1992, 40, pp. 1-25.
- <sup>21</sup> See David McKenzie, “How do Households Cope with Aggregate Shocks? Evidence from the Mexican Peso Crisis,” *World Development* 2003, 31(7), pp. 1179-99.
- <sup>22</sup> On how poor households respond to risk, and evidence from rural China, see Jyotsna Jalan and Martin Ravallion, “Behavioral Responses to Risk in Rural China,” *Journal of Development Economics*, 66, 2001, pp.23-49.
- <sup>23</sup> The Maharashtra *Employment Guarantee Scheme* (discussed later) is an example. See John Echeverri-Gent, “Guaranteed Employment in an India State,” *Asian Survey* 1988, 28(12), pp. 1294-1310.
- <sup>24</sup> See Shaohua Chen and Martin Ravallion, *ibid*.
- <sup>25</sup> See Ravi Kanbur, Michael Keen and Matti Tuomala, “Labor Supply and Targeting in Poverty-Alleviation Programs,” in Dominique van de Walle and Kimberly Nead (eds) *Public Spending and the Poor*, Johns Hopkins University Press, 1995.
- <sup>26</sup> On this point see the discussion in Jonah Gelbach and Lant Pritchett, “Indicator Targeting in a Political Economy: Leakier can be Better.” *Journal of Policy Reform* 2000, 4, pp. 113–45.

- <sup>27</sup> As argued by Giovanni Cornia and Frances Stewart, "Two Errors of Targeting," in D. van de Walle and K. Nead (eds) *Public Spending and the Poor*, Johns Hopkins University Press for the World Bank, 1995.
- <sup>28</sup> See Martin Ravallion, "How Relevant is Targeting to the Success of an Antipoverty Program?" *World Bank Research Observer*, forthcoming.
- <sup>29</sup> For further discussion, and a robustness test, see Martin Ravallion, "Miss-Targeted, or Miss-Measured?" *Economics Letters*, 2008, 100, pp: 9-12.
- <sup>30</sup> See, for example, Chapter 5 of International Monetary Fund, *World Economic Outlook 2008*. Also see Graciela Kaminsky, Carmen Reinhart and Carlos Végh, "When it Rains, it Pours: Pro-cyclical Capital Flows and Macroeconomic Policies," *NBER Macroeconomics Annual*, Cambridge: MIT Press.
- <sup>31</sup> See Martin Ravallion, "Who is Protected from Budget Cuts?" *Journal of Policy Reform* 2004, 7(2), pp.109-22.
- <sup>32</sup> See Martin Ravallion, "Are the Poor Protected from Budget Cuts? Evidence for Argentina" *Journal of Applied Economics* May 2002, 5, pp. 95-121
- <sup>33</sup> See Christina Paxson and Norbert Schady, "Child Health and the 1988-92 Economic Crisis in Peru," *World Bank Economic Review*, 2005, 19(2), pp. 203-223.
- <sup>34</sup> See Lokshin and Ravallion, *ibid.*
- <sup>35</sup> For a discussion of this program see Jerry Skees, Panos Varangis, Donal Larson and Pual Siegel, "[Can Financial Markets be Tapped to Help Cope with Weather Risks](#)," Policy Research Working Paper 2812, World Bank. For an overview of the issues that arise in financing counter-cyclical safety net programs see Harold Alderman and Trina Haque, "Countercyclical Safety Nets for the Poor and Vulnerable," *Food Policy* 2006, 31, pp. 372-383.
- <sup>36</sup> For a review of the problems see Dominique van de Walle, "Assessing the Welfare Impacts of Public Spending," *World Development*, 1998, 26(3), pp. 365-379.
- <sup>37</sup> On the methods available see Martin Ravallion, "Evaluating Anti-Poverty Programs," in *Handbook of Development Economics Volume 4*, edited by Paul Schultz and John Strauss, Amsterdam: North-Holland, 2008.
- <sup>38</sup> On this point see Dominique van de Walle, "Targeting Revisited," *World Bank Research Observer*, 1998, 13(2): 231-48. For evidence on a specific program see Martin Ravallion and Gaurav Datt, 1995, "Is Targeting Through a Work Requirement Efficient? Some Evidence for Rural India," in Dominique van de Walle and Kimberly Nead (eds) *Public Spending and the Poor: Theory and Evidence*, Baltimore: Johns Hopkins University Press.
- <sup>39</sup> For an overview of the methods found in practice, with details on many examples, see Margaret Grosh, Carlo del Ninno, Emil Tesliuc and Azedine Ouerghi, *For Protection and Promotion: The Design and Implementation of Effective Safety Nets*, World Bank, Washington DC, 2008.
- <sup>40</sup> Evidence on this point is reviewed by the forthcoming World Bank Policy Research Report, Fiszbein, A. and Schady M., et al., *Conditional Cash Transfers for Attacking Present and Future Poverty*, 2009.
- <sup>41</sup> On these programs see Fiszbein and Schady, *ibid.* Also see the discussion in Jishnu Das, Quy-Toan Do and Berk Ozler, "A Welfare Analysis of Conditional Cash Transfer Schemes," *World Bank Research Observer*, 2004.
- <sup>42</sup> See Fiszbein and Schady, *ibid.*
- <sup>43</sup> See Lisa Cameron, "[Did Social Safety Net Scholarships Reduce Drop-Out Rates during the Indonesian Economic Crisis?](#)" Policy Research Working Paper 2800, World Bank, 2002.
- <sup>44</sup> See Lokshin and Ravallion op cit.
- <sup>45</sup> See Harold Alderman and Kathy Lindert, "The Potential and Limitations of Self-Targeted Food Subsidies," *World Bank Research Observer*, 1998, 13(2) 213-29.
- <sup>46</sup> On the India's Famine Codes see Jean Drèze, "Famine Prevention in India," in Jean Drèze and Amartya Sen, *The Political Economy of Hunger*, Oxford: Oxford University Press, 1990. On the role of the schemes in famine relief in Africa Joachim von Braun, T. Teklu and Patrick Webb. *Famines in Africa: Causes, Mitigation Prevention*. Washington D.C.: International Food Policy Research Institute, 1994.
- <sup>47</sup> See Grosh et al., *ibid.*, Appendix B4, for a compendium of the programs found in these and other countries.
- <sup>48</sup> See Martin Ravallion, "Anti-Hunger Policies in Market Economies: Effects on Wages, Prices and Employment", in Jean Drèze and Amartya Sen (eds), *The Political Economy of Hunger*, Oxford University Press, Oxford, 1990.
- <sup>49</sup> See Echeverri-Gent *ibid.*, and the discussion in Jean Drèze and Amartya Sen, *Hunger and Public Action*, Clarendon Press: Oxford.
- <sup>50</sup> Ministry of Rural Development, Government of India, *National Rural Employment Guarantee Act*, 2004.
- <sup>51</sup> See Gaurav Datt and Martin Ravallion, "Transfer Benefits from Public Works Employment" *Economic Journal*, 104, November 1994, pp. 1346-1369.
- <sup>52</sup> See Jyotsna Jalan and Martin Ravallion, "Estimating the Benefit Incidence of an Anti-Poverty Program by Propensity-Score Matching", *Journal of Business and Economic Statistics*, 2003, 21(1), pp. 19-30.



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<sup>53</sup> See Martin Ravallion, Emanuela Galasso, Teodoro Lazo and Ernesto Philipp “What Can Ex-participants Reveal about a Program’s Impact?”, *Journal of Human Resources*, 2005, 40, pp. 208-230.

<sup>54</sup> See Emanuela Galasso and Martin Ravallion, “Social Protection in a Crisis: Argentina’s *Plan Jefes y Jefas*”, *World Bank Economic Review*, 2004, 18(3), pp: 367-399.

<sup>55</sup> See Rinku Murgai and Martin Ravallion, “Employment Guarantee in Rural India: What Would it Cost and How Much Would it Reduce Poverty?”, *Economic and Political Weekly*, July 30, 2005, pp. 3450-3455.

<sup>56</sup> For further discussion of the issues discussed here see Martin Ravallion, “Appraising Workfare,” *World Bank Research Observer*, 1999, 14(1), pp. 31-48.

<sup>57</sup> See Ravallion *ibid.*

<sup>58</sup> Such [poverty maps](#) are becoming common, or can be produced by the government’s statistics office, with technical assistance if required.

<sup>59</sup> See Martin Ravallion, Gaurav Datt and Shubham Chaudhuri, "Does Maharashtra's 'Employment Guarantee Scheme' Guarantee Employment? Effects of the 1988 Wage Increase" *Economic Development and Cultural Change*, 1993, 41, pp. 251-275.