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## ***Social Protection in Indonesia: Past Experiences and Lessons for the Future#)***

Sudarno Sumarto and Samuel Bazzi \*)<sup>2</sup>

### *Abstract*

Prior to the Asian financial crisis, social protection in Indonesia was largely based on informal arrangements. When the country sank into a deep social and economic crisis in 1998, the government had no alternative but to create new, more formal social safety nets explicitly aimed at helping the chronic poor and vulnerable non-poor cope with the impact of the crisis. A comprehensive set of safety net programs covered food security, employment creation, education, health, and community empowerment. Several years after the crisis as the economy slowly recovered and welfare stabilized around pre-crisis levels, the government redesigned several of these programs while discontinuing others. Throughout this latter, post-crisis period, the government also implemented a range of new social protection programs, including several conditional and unconditional cash transfer programs, to replace highly regressive fuel subsidies. Recently, the government has formed a National Team for the Acceleration of Poverty Reduction (TNP2K) with the mandate to reduce poverty incidence to 8% by 2014. This essay analyses Indonesia's experience with social protection during and after the crisis, drawing key lessons for the future of social protection policy in Indonesia.

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## 1 *Background on the Evolution of Social Protection Policy since 1997*

In mid-1997 after nearly a quarter of century of dramatic economic growth and poverty reduction, a currency crisis struck Indonesia. By early 1998 the country was suffering from the combined effects of financial, economic, and political crises. Within one year, the value of the Rupiah fell by 85 percent, domestic prices skyrocketed by 78 percent, nominal food prices increased threefold, and the economy contracted by almost 14 percent. As the crisis worsened, mass rioting occurred in the capital Jakarta and a few other major cities, culminating in May 1998 with the fall of the Suharto government, which had been in power for three decades.

The social impact of the crisis was enormous. The crisis primarily affected the poor and vulnerable non-poor through falling real wages<sup>3</sup> and a drastic increase in the price of basic commodities. The national poverty rate increased from 15 percent in mid-1997 to 33 percent by the end of 1998, implying that an additional 36 million people were pushed into absolute poverty due to the crisis.<sup>4</sup> More than half of the increase in poverty between 1996 and 1999 was due to an increase in chronic poverty, as the proportion of chronic poor within the total population increased from 3.2 percent to 9.5 percent during this period.<sup>5</sup> Meanwhile, the proportion of non-poor Indonesian households facing a high probability of falling below the poverty line had increased dramatically from 6.8 percent in 1996 to 18.4 in 1999.

To mitigate the adverse social impact of the crisis, the government of Indonesia (GOI) introduced social safety net programs---widely referred to by their Indonesian acronym JPS---aimed at protecting the chronic poor from falling deeper into poverty and reducing vulnerable households' exposure to risk. The JPS had a four-pronged strategy: (i) to ensure the availability of affordable food, (ii) to improve household purchasing power through employment creation, (iii) to preserve access to critical social services, particularly health and education, and (iv) to sustain local economic activity through regional block grants and the extension of small scale credits. In July 1998, with financial support from international donors including the World Bank and Asian Development Bank, the GOI allocated Rp3.9 trillion directly to JPS programs out of a total development budget of Rp14.2 trillion.<sup>6</sup> JPS programs covered education, health, community empowerment, and employment creation, in addition to a separate program known as OPK, which provided highly subsidized rice to poor households. The scale of this social protection initiative, which we refer to hereafter as the First Generation, was unprecedented in Indonesian history.<sup>7</sup>

In the years after the crisis, the GOI maintained several JPS programs while also mounting a number of new social assistance initiatives. In addition to introducing a more well targeted successor

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<sup>3</sup> Real wages were estimated to have fallen by around one third from August 1997 to August 1998 (Manning, 2000).

<sup>4</sup> The poverty rate increased by 164 percent from the onset of the crisis in mid-1997 to the end of 1998. Sumarto, Suryahadi and Pritchett (2003a) produced poverty figures consistent throughout the duration of the crisis. These figures differ from official figures published by BPS based on annual *Susenas* data, which generated poverty lines based on incomparable consumption baskets across the crisis years.

<sup>5</sup> Generally, the chronic poor include those households whose expected future consumption levels fall below the poverty line, while the transient poor have expected consumption above the poverty line. See Suryahadi and Sumarto (2003) for a detailed technical exploration.

<sup>6</sup> For indicative purposes only, the average exchange rate around this time period was Rp10000/USD. BAPPENAS actually announced a development budget of Rp17 trillion in September 1998 (Maxwell and Perdana 2004). By comparison, the total development budget in the previous fiscal year was Rp2 trillion. The JPS line item excludes the rice subsidy program, *operasi pasar khusus* (OPK). The development budget less the OPK funds stood at roughly Rp8.8 trillion. Full budget figures available at <http://rspas.anu.edu.au/~gfane/>, from Daly & Fane (2002).

<sup>7</sup> The World Bank's Public Expenditure Review (2009) report was the first to make reference to these "Generations".

to OPK known as Raskin or Rice for the Poor, the GOI aimed to restructure regressive subsidies on fuel products (BBM)<sup>8</sup> and to channel budgetary savings into targeted social protection and poverty alleviation programs. On several occasions since 2000, BBM subsidies were slashed and a portion of the savings subsequently reallocated to social programs known as PKPS-BBM.<sup>9</sup> Alongside dramatic cutbacks in March and October 2005, the GOI implemented a substantial compensation package including health insurance for the poor, educational assistance, infrastructure development programs, and the world's largest unconditional cash transfer (UCT) program targeting over 19 million poor and near-poor households. In 2007, a smaller-scale conditional cash transfer (CCT) program was launched, and in mid-2008, a second round of unconditional cash transfers were implemented after further fuel subsidy cutbacks. We refer to Raskin and the programs originating in PKPS-BBM as the Second Generation of social protection in Indonesia.

In drawing lessons from First and Second Generation programs, policymakers today are striving to create a more efficient, equitable and ultimately permanent social protection system. The goal is not merely to provide risk-coping mechanisms in response to economic shocks but also to institute sustainable programs that support intergenerational pathways out of poverty. The country has made great strides in reducing poverty to pre crisis levels (see Figure 1), yet much remains to be done. The government's Medium Term Development Plan for 2010-2014 focuses on the multidimensional and long-term nature of poverty alleviation, continuing the shift from universal subsidies to targeted social protection programs. Its goal is to reduce poverty from 14 per cent in 2009 to 8 per cent in 2014. Chief among the institutions leading this effort today is the National Team for Accelerating Poverty Reduction (TNP2K) established in the Office of the Vice President in 2010. TNP2K has been given the responsibility of overseeing the coordination of three clusters of poverty programs, household-based social assistance programs (e.g., Raskin, CCT), community empowerment programs, and programs to expand economic opportunities for low-income households in areas such as micro credit.

Over the last several years, three programs---the UCT, Raskin, and Health Insurance for the Poor (Jamkesmas)---have amassed the largest share of government expenditures on social protection and assistance. In 2008, the UCT accounted for 40 percent of total social assistance spending, Raskin for 34 percent, and Jamkesmas for 13 percent (World Bank 2009, PER). The three programs have the same target population: poor and near-poor (<1.2 times the poverty line) households, which comprised 22 percent of all households in 2009. In terms of population coverage, 27 percent of households received the UCT, 52 received Raskin benefits, and 28 percent received Jamkesmas health cards (Alatas, Purnamasari and Wai-Poi, forthcoming). A deeper understanding of the effectiveness of these programs in reducing poverty will be a key ingredient in the discussion over the future direction of social protection.

The remainder of the paper is organized as follows. In the next section, we provide a rigorous account of the successes and failures of First and Second Generation social protection programs. While the targeting of several JPS programs has been called into question by numerous authors, the evidence suggests that without these programs social welfare would not have recovered in such a relatively short time. The Second Generation programs have since helped to maintain these post-crisis gains despite periodic bouts of economic volatility and, more importantly, have also enabled

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<sup>8</sup> In Indonesia, *bahan bakar minyak* (BBM) refers primarily to three fuel products: kerosene, automotive diesel, and gasoline.

<sup>9</sup> *Program Kompensasi Pengurangan Subsidi Bahan Bakar Minyak*, Fuel Subsidy Reduction Compensation Program.

the central government to transition into a more progressive public spending regime. We devote considerable discussion to the UCT program in 2005-6 based on the results of our recent impact evaluation (Bazzi, Sumarto, and Suryahadi 2010). In Section 3, we discuss the prospects for the future of social protection policy. We call particular attention to two ongoing debates with important implications for social protection policy, namely the distinct role of conditional and unconditional cash transfers as well as the importance of trade policies for food security. Section 4 concludes with a brief account of lessons learned and the most recent policy discussion in Jakarta.

## **2 Two Generations of Social Protection Policies and Programs**

### **2.1 First Generation**

The First Generation programs operated in five major sectors: food security, employment creation, education, health, and community empowerment. While different ministries designed and implemented each of the programs, the government also established a team specifically tasked with monitoring overall implementation. The team was headed by the National Development Planning Agency (BAPPENAS) at the central level and by the provincial and district development planning boards at the local level. Table 1 summarizes the objectives, intended magnitude, geographical coverage, benefits provided, eligibility, source of funding, and targeting of the major First Generation programs.

#### **2.1.1 Food Security**

The government initially introduced the rice subsidy program (OPK) in July 1998 to ensure continued access among the poor to affordable rice, the basic staple food for the majority of Indonesians. By far the most important commodity among the poor, rice comprises nearly a quarter of average monthly expenditures in the poorest 20 percent of Indonesian households. After a successful pilot program in Jakarta, the program was expanded to the rest of the country. Initially, only households in the lowest category of the official poverty classification available at the time were eligible to participate in the program, but coverage was eventually expanded to include the second lowest category during the course of the year.<sup>10</sup>

The OPK program was the largest and arguably most critical component of the SSN programs during the crisis. Program guidelines initially allowed eligible households to purchase 10 kilograms of rice per month at a highly subsidized price of 1,000 Rupiah per kilogram, compared to an average market price of 3,000 Rupiah per kilogram for medium quality rice. Olken (2006) estimates that the OPK transfers constituted 9 to 11 percent of total pre-program monthly expenditure for the median participant household. Suggestive econometric evidence indicates that OPK recipients experienced an increase in per capita household consumption on the order of four percent higher than comparable non-recipients (Sumarto, Suryahadi and Widyanti, 2005).

Despite its wide reach, the OPK program suffered from weak targeting performance. By 2001, over 20.2 million households reported receiving subsidized rice, nearly double the target population, and

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<sup>10</sup> The official classification was created by the national family planning agency (BKKBN), which groups households into five welfare statuses: 'pre-prosperous households' ("*keluarga pra-sejahtera*" or KPS), 'prosperous I households' ("*keluarga sejahtera I*" or KS I), KS II, KS III, and KS III+. Every year, BKKBN conducts a census on households all over the country and, based on the data collected, classifies households into the five welfare categories using 23 indicators.

yet only 53 percent of the poor participated. Geographic targeting was conducted according to regional poverty rates derived from baseline data provided by the national family planning agency (BKKBN). At the community level, though, where village governments were responsible for implementation, administrative guidelines often proved socially unacceptable. In distributing the benefits, local village leaders generally did not adhere to the list of eligible households, which they argued were an inaccurate reflection of the village welfare distribution.<sup>11</sup>

In the face of mounting criticism, the GOI introduced in mid-2001 a set of changes to OPK including the new program name of Rice for the Poor or Raskin. Prior to the first large-scale UCT in late 2005, Raskin remained the most extensive social protection program. Although targeting has improved relative to OPK, recent evidence suggests that the program continues to experience significant leakage of benefits to non-poor households (Alatas, Purnamasari and Wai-Poi, forthcoming). At the same time, relative to the UCT and Jamkesmas programs, Raskin has a lower exclusion error in that as of 2009 only 23 percent of poor households reported not receiving benefits in the last three months. In practice, in rural areas local officials and community organizations continue to redistribute Raskin rice to non-beneficiary households effectively reducing the eligible amount of subsidized rice (10 kg per month) actually received by some beneficiaries.<sup>12</sup> Ultimately, the effectiveness of Raskin is counteracted by the GOI's protectionist trade policy with respect to rice imports. These policies have proven to be a persistent source of consumption volatility for poor households, the effects of which can only be partially offset by Raskin benefits. We return to this issue in Section 3 below.

### **2.1.2 Employment Programs**

Another large component of the JPS system was the employment creation program, known as *padat karya*, launched in late 1997. By FY1998/99, 16 different programs were operating under the 'employment creation' category. These programs could be classified into four types:

- On-going investment and infrastructure projects that planners subsequently redesigned into more labor-intensive programs and modes of contracts.
- Block grants given to local communities such as the *Kecamatan* Development Program (PPK), the Village Infrastructure Project (IDT), and the Regional Empowerment to Overcome the Impact of Economic Crisis (PDM-DKE) Program. These funds were directed to poorer areas, offering utilization menus that included the possibility of public works.
- Special labor-intensive works and retraining programs for laid-off workers carried out by sectoral ministries.
- "Food for work" programs, typically launched by international donors and NGOs in drought-stricken regions.

By FY1999/2000 the *padat karya* programs were reduced to two, a public works program and a special initiative for unemployed women.

Although some employment creation programs were targeted to specific areas, there was a notable lack of implementation guidelines. Household targeting was primarily implicit as workers self-selected into the program based on going wage rates. There was no fixed minimum wage rate, but in

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<sup>11</sup> The recent study by Alatas et al (2010) confirms that community-based targeting is more effective at reaching the poorest households than a method based solely on administrative criteria and implemented through a proxy means test.

<sup>12</sup> It is unclear whether such redistribution can be detected in available household survey data.

some regions, the wage rate was actually set higher than the prevailing local wage rate, thus inducing those already working to switch jobs or to take additional jobs. Available evidence suggests that households with at least one member participating in the program experienced an increase in per capita consumption approximately four percent higher than comparable non-participant households (Sumarto, Suryahadi and Widyanti, 2005). The labor programs fared better along measures of dynamic benefit incidence than other JPS programs in health and education. This could be largely explained by the self-selection mechanism, which responds to welfare changes more efficiently than do administratively assigned benefits (Sumarto, Suryahadi and Pritchett 2003b). In this regard, the labor programs may have effectively reached not only the chronic poor but also vulnerable near-poor households facing transitory shocks.

### **2.1.3 Health**

Anticipating the deterioration in public and family health as a result of the crisis, the GOI established JPS programs in the health sector. Policymakers hoped to enable public health providers to maintain the quality and availability of services and poor households to afford the higher costs of medical services. These programs consisted of a targeted consumer price subsidy, nutritional supplements, and operational support for public health facilities and village midwives. Based on similar targeting criteria as OPK and irrespective of health status, eligible households received health cards, which could be used to obtain medical services at public health clinics free of charge. By February 1999, approximately 22 million Indonesian households had at least one health card. Program planners in Jakarta allocated operational grants to service providers based on the predicted number of poor in the area served by the respective facility or midwife organization. The bulk of these funds went towards the procurement of medical supplies.

Impact evaluations of the JPS health program produced mixed findings. Targeting was generally progressive as the poorest two quintiles received nearly 60 percent of health cards (Sparrow, 2006). However, the actual utilization of the cards for outpatient care was negligible in comparison to the quantity of cards distributed. The low utilization rates among recipients were likely attributable to the same constraints the poor face in non-crisis periods including significant time and travel costs to reach health facilities as well as limited access to information regarding health service quality and availability.<sup>13</sup> The high rate of underutilization also reflected the weak linkage between the disbursement of health cards and the allocation of operational grants. Nevertheless, among the poor the health card program led to increased health care utilization and a moderate shift from private to subsidized public facilities.<sup>14</sup> For the non-poor, a similar shift in utilization was observed. Quasi-experimental evidence suggests the operational grants had a relatively stronger impact on overall utilization than did the actual receipt of health cards (Sparrow, 2006).

### **2.1.4 Education**

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<sup>13</sup> There are two other potential explanations for low utilization rates. The first is that households refrained from using the health cards when obtaining medical service because they perceived such services to be inferior. Another straightforward explanation is that the *Susenans* survey was conducted only a few months after the majority of the health cards had been distributed, leaving a short time window in which households would have utilized health services, the expenditure on which is generally more sporadic than on education or food. The fact that health cards were to be distributed to the poor irrespective of health status supports this hypothesis.

<sup>14</sup> Prior to the crisis, the use of public primary health services was higher for the non-poor (Lanjouw et al, 2002). This suggests that relatively wealthier households were likely to benefit substantially from the JPS-BK programs.

In the early stages of the crisis, there was a concern that parents might be pressured to withdraw their children from school as a way to cope with falling incomes and rising school costs, hence triggering a large increase in dropout rates.<sup>15</sup> This rightly alarmed the government, which responded by establishing an educational funding program in the academic year 1998-99.

The JPS education program included scholarships for students from poor families and block grants for schools to facilitate continued operations. The program aimed to reach at most 6 percent of primary school students, 17 percent of lower secondary school students, and 10 percent of upper secondary school students nationwide. Meanwhile, budgetary constraints dictated that 60 percent of schools in each district were to receive operational grants (DBO), which could be used to purchase school materials, make physical repairs and cover other operational costs. Similar to the *Progres*a program in Mexico, the JPS scholarships provided cash to students from poor households as an increasing function of enrollment level with 10,000 Rupiah per month for students in primary school (SD), 20,000 Rupiah for junior secondary (SMP), and 30,000 for upper secondary (SMA). By comparison, average monthly expenditure on education per student was 4,900, 16,100, and 30,400 Rupiah for primary, junior secondary and senior secondary students respectively in the 1997-98 academic year. The scholarships covered nearly eight percent of average monthly *per capita* expenditure among recipient households in the poorest quintile.<sup>16</sup>

The official targeting mechanism consisted of three stages. In the first stage, scholarships were allocated to districts based on a poverty index constructed from 1996 *Susenas*. Subsequently, district committees decided on the amount of scholarship funds to allocate to schools. In the final stage, JPS committees at each school<sup>17</sup> allocated scholarships to students based on poverty status, household structure, distance to school, and gender. Half of the scholarships were to be distributed to girls, and in fact, girls received more scholarships than boys at all three levels of schooling (Sparrow, 2006). Given that primary school attendance in grades 1-3 is relatively income inelastic in Indonesia, students in these grades were deemed ineligible for the scholarships. For all intents and purposes, the program operated as a quasi-conditional cash transfer. Although very loosely monitored, receipt of the scholarships did require continued enrollment and a passing grade, but there were no formal conditions on school attendance or how the funds could be used.

Although overall coverage of the poor was rather limited as seen in Figure 2, the scholarship program generated measureable improvements in educational outcomes. Despite the severity of the crisis impact on household welfare, large-scale dropouts were prevented among younger school-age children. Econometric evidence suggests that the program succeeded in returning enrolment to pre-crisis levels, especially for primary school-age children in rural areas. Approximately 13 percent of JPS recipients would have dropped out of school if they had not received the scholarship, yielding

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<sup>15</sup> Sparrow (2006) cites the following findings on the educational response to the crisis: Cameron and Worswick (2001) find that households smoothed consumption by reducing expenditures on education particularly for girls in rural households in response to crop loss, while Frankenberg et al (2002) found that households smoothed consumption by reducing expenditures on education and health during the crisis by as much as 37 percent. Thomas et al (2004) found that household spending on education declined by 19 percent per enrolled household member from 1997-1999.

<sup>16</sup> Authors' calculation based on *Susenas* 1999.

<sup>17</sup> School committees consisted of the principal, a teacher representative, a student representative, the head of parents' association, and the village head.



an increase in overall enrollment by 0.6 percent (Sparrow, 2006).<sup>18</sup> Unlike the JPS health programs, though, the demand-side (scholarships) had a larger impact on enrollment than did the supply-side (DBO operational grants). By raising the reservation wages of poor students, the JPS program reduced the use of child labor as a consumption smoothing mechanism in recipient households.<sup>19</sup>

## 2.2 *Second Generation Policies and Programs*

Indonesia's fuel subsidies, among the largest in Asia (see Figure 3), have long kept the domestic price of fuel products much lower than international prices. Figure 4 shows that these subsidies tend to be *absolutely* regressive in that the majority of overall benefits accrued to non-poor households. At the same time, the kerosene subsidy is *relatively* progressive in urban areas. During this post-crisis period, successive governments gradually increased the price of BBM and began experimenting with new compensation packages (PKPS-BBM) as well as new programs in health and education.<sup>20</sup>

In mid-2000, policymakers launched the first phase in a the politically challenging process of cutting fuel subsidies. After scaling down subsidies by roughly 12 percent in October 2000, the GOI reallocated 800 billion Rupiah in savings to a package of short-term compensatory programs including cash transfer, revolving funds and community empowerment programs aimed at employment generation. Based on BKKBN criteria, roughly 6.6 million poor households across the country received 10,000 Rupiah per month for three months. The revolving funds program aimed to increase capital available to small businesses and microenterprises through existing financial institutions. The revolving funds program distributed 100 million Rupiah to savings and loan cooperatives and 50 million Rupiah to microfinance institutions. Available evidence suggests that the program's limited budget and implementation timeframe constrained the resulting impact on poverty and welfare.<sup>21</sup>

In 2005 on the heels of escalating global oil and gas prices, the GOI slashed fuel subsidies more dramatically than ever before. The subsidy reform proceeded in two stages. In March 2005, the government raised gasoline and automotive diesel prices by 33 and 27 percent respectively. The price of kerosene, the least regressively subsidized good, was initially left untouched. After several months and some publicity, the GOI slashed subsidies dramatically on October 1st effectively raising prices of the three fuel products by a weighted average of 114 percent. Previously immune to policy change, kerosene prices nearly tripled increasing by 186 percent while gasoline and diesel prices grew another 88 and 105 percent respectively.

The subsidy reform measures yielded over 10 billion US\$ in annualized budgetary savings, a portion of which was allocated to renewed programs in health, education, infrastructure as well as an unconditional cash transfer scheme. Prior to the October price hike, the government had already allocated 5 trillion Rupiah to education, 3 trillion Rupiah to health and 3 trillion Rupiah to

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<sup>18</sup> Additionally, Cameron (2002) found that the JPS scholarships reduced dropouts at the junior secondary level by three percent

<sup>19</sup> See Sparrow (2006, pp. 109-117) on the effect of the JPS scholarship program on the simultaneous decision regarding school attendance and work activities among enrolled children. Priyambadi, Sumarto and Suryahadi (2004) show that labor and schooling are not mutually exclusive activities among children in poor Indonesian households.

<sup>20</sup> The original JPS health cards program was discontinued in most areas by the end of 2001, and the JPS scholarships program ended in 2003.

<sup>21</sup> See SMERU (2001) for the full field research findings.

infrastructure. From October 2005 to October 2006, the GOI distributed quarterly installments of 300,000 Rupiah (about 30 USD) to over 19 million households, effectively embarking upon the world's largest UCT program.

### ***2.2.1 Unconditional Cash Transfer<sup>22</sup>***

The UCT program was designed explicitly to prevent poor and near-poor households from having to reduce expenditures on essential food commodities, health and education as kerosene prices spiked and overall inflation soared. Poor households relied on subsidized cooking oil and were therefore expected to be hurt directly by any policy changes targeting kerosene. Furthermore, the 17.9% year-on-year inflation from February 2005 to February 2006 and 8.7% month-on-month inflation from September to October of 2005 was expected to hit the poor hardest.

Targeting of UCT benefits would prove difficult given the challenges of identifying *ex ante* which households were most exposed to the subsequent price shocks. Political exigency and prior experience with social welfare programs largely guided the targeting procedures and institutional implementation. However, the relatively short period between program conception and rollout left enumerators and implementing agencies time constrained relative to other countries' experiences with such large scale cash transfer programs.

The targeting of beneficiaries proceeded in three stages. First, local government officials devised a large list of potential recipients in August 2005. Second, using a minimalist survey instrument, the regional statistical bureaus enumerated those households. However, only 56 percent of recipient households recall ever being visited by enumerators, while the majority of those enumerated were visited not by BPS officials but merely by local government officials. Lastly, the Central Statistics Bureau (BPS) used the survey data to implement a proxy-means test to generate the final list of eligible households by the end of September. BAPPENAS along with BPS established the proxy means test based on 14 variables from the eligibility survey capturing household welfare indicators.<sup>23</sup> This was the first time in Indonesian history that proxy means tests were used to target poor households in a national social assistance program. Given the initial program budget, all poor and near-poor households were technically eligible though many non-(near-)poor households received benefits while numerous poor and near-poor households were excluded.

Although nearly 80 percent of households knew the total amount of quarterly benefits to which recipient households were entitled, local officials in some regions succeeded in extracting a portion of the officially mandated 300,000 Rupiah quarterly disbursements. Approximately 6.5 percent of recipients were subject to these informal taxes at the time of obtaining their first UCT disbursement in late 2005, and 8.5 percent of recipients paid a tax on their second disbursement in the first two months of 2006. According to recipients subjected to these taxes, the proceeds were meant to cover

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<sup>22</sup> All figures cited without reference in this section are drawn from Bazzi, Sumarto, and Suryahadi (2010).

<sup>23</sup> The questions concerned: 1) floor type, 2) wall and roof type, 3) toilet facility, 4) electrical source, 5) cooking fuel source, 6) drinking water source, 7) frequency of meat consumption, 8) frequency of meal consumption, 9) frequency of purchase of new clothes, 10) access to public health facilities, 11) primary source of income, 12) educational attainment of household head, 13) amount of savings and type of assets, and 14) floor width. Unfortunately, the data used to devise the official proxy-means test is not available to researchers.

local ID/certificate administration, security at disbursement centers, but most were claimed to be intended for local redistribution to deserving non-recipients.

The full transfer amounted to approximately half of monthly household expenditures (measured in early 2005) for the median recipient and almost twice as much as median expenditures in per capita terms. The UCT benefits were larger than any direct welfare transfers in the past, but given rapid inflation the real value of the transfers was much more limited. Recipient households reported a range of uses for the funds: 23 percent reported using the transfers for kerosene expenditures (the "tagging" effect); 9 percent for education; 31 percent for health; 6 percent for food; 12 percent for capital; 20 percent for other. While household income is certainly fungible, these subjective assessments provide a glimpse into household valuations of the program.

The program's vast scope yielded substantial variation in pre-program welfare levels within and between recipient and non-recipient groups. Recipient households were indeed poorer on average than non-recipients in early 2005 prior to the UCT rollout. Yet there was still evidence of potential (i) leakage of benefits as 37% of UCT recipients were in the top three national per-capita expenditure quintiles, and (ii) undercoverage as half of the lowest quintile did not receive any benefits. Figure 5 bears out these targeting results, and Figure 6 shows that the UCT targeting outcomes were relatively comparable with programs in other developing countries in the Americas. The main difference with these programs is that the UCT benefits accrued to a large number of non-poor households in the top 60 percent of the baseline expenditure distribution. Given existing data, however, it is not possible to determine whether benefits were indeed mistargeted based on proxy means scores. Still, the fact remains that 73 percent of UCT recipients were non-poor based on region-specific poverty lines for early 2005. Only 50 percent of poor households received any transfers while 39 percent of near-poor households received transfers. Household perceptions of targeting outcomes are mostly consistent with the preceding findings.<sup>24</sup>

In Bazzi, Sumarto and Surayahadi (2010), a rich array of nonexperimental identification strategies offer a mixed view of the program's effectiveness. On the one hand, we find that the UCT led to increased utilization of outpatient healthcare services as well as a reduction in the labor supply of currently enrolled schoolchildren. With regards to expenditure outcomes, however, the program did not yield growth among recipients at the same pace as comparable non-recipients. By exploiting a unique feature of the program rollout, we show nevertheless that households that received two disbursements by January-February 2006 achieved higher consumption growth than did comparable households that received a single disbursement. Tables 2 and 3 summarize these primary results, reporting the average binary and multivalued treatment effect of the cash transfers on recipient households. Further details on the estimation procedures and results can be found in Bazzi, Sumarto and Surayahadi (2010).

Why, though, did such a large UCT program not exhibit the uniformly positive treatment effects, especially on aggregate expenditures, observed in many other settings? In general, the findings

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<sup>24</sup> Almost half (43 percent) of all households believed non-poor households within their village had benefited from the UCT. Among the one-third of households with any complaints about the UCT program, 48 percent believed benefits were misallocated. Moreover, households aware of local protests surrounding the UCT disbursement process believed mistargeting to be responsible in 53 percent of incidents. Perceptions of other households notwithstanding, a mere 15 percent of households believed their treatment status to be incorrect.

suggest that the targeting of UCT benefits may have been a crucial determinant of the outcomes observed in this evaluation. Given the absence of the underlying proxy means test (PMT) eligibility scores, forging a plausible counterfactual to UCT recipient households posed a substantial empirical challenge. Although we observe substantial overlap in propensity scores relative to other nonexperimental evaluations in the literature, our (generalized) propensity score model explains merely one-fifth of the variation in treatment status across households. While we utilize a wide array of household characteristics with relatively flexible functional forms, our baseline data only offer a subset of characteristics observable to enumerators and local officials. It is therefore possible that the unobserved local targeting process successfully identified those households for whom future earnings potential were lowest, thereby inducing a mechanical downward bias in the estimated treatment effects.

An additional potentially important explanation concerns non-classical measurement error in expenditure reporting in the follow-up survey data. The first few months of the UCT program in 2005 generated a great deal of public controversy surrounding the allocation of benefits and widespread perception of mis-targeting. During that period, eligibility lists were not only being expanded but in some cases redrawn altogether. Recipient households enumerated in February 2006 may therefore have perceived their ongoing participation as being contingent on reported welfare levels. Such beliefs could have led to systematic underreporting of expenditure levels among precisely those households which had received UCT disbursements by early 2006, and especially those households awaiting a second disbursement. This quasi-Ashenfelter's dip also potentially imparts a substantial downward bias in estimated treatment effects for expenditure and other easily manipulable non-expenditure outcomes.

Ultimately, there are several plausible explanations for the seeming puzzle that UCT beneficiaries' expenditures grew slower than comparable non-recipients. One argument holds that the transfers were simply too small to accomplish such wide-ranging compensation or that the urban poor received too little compensation relative to rural households less affected by the subsidy downgrades (Yusuf and Resosudarmo, 2008). Our findings, however, may still be consistent with economic theories concerning household responses to predictable and transitory income shocks such as that imparted by the UCT. First, a simple marginal utility of income argument suggests that the response to a positive non-labor income shock at time  $t$  should, all else equal, be declining in wealth levels at time  $t-1$ . Considering that a sizable share of UCT recipients were non-poor, this hypothesis could explain the low treatment effects we find. Second, taking the permanent income and life cycle hypotheses seriously, it is perhaps not surprising that we find null or even negative treatment effects when examining expenditure growth in a treatment group comprised of relatively poorer households. Third, a concomitant upswing in rice prices discussed in Section 3 undoubtedly hit the relatively poorer UCT recipient households hardest. Nevertheless, the fact that the UCT program provided households with differential access to health services and child labor-saving investments should not be overlooked when weighing the overall impact of the program.

In the absence of the UCT, we argue that poverty levels would have risen even more than the official 1.75 percentage point increase estimated by the GOI for the period from 2005 to 2006 (see Figure 1). Consider first the simple observation that the UCT need not have induced expenditure growth to contribute to observable reductions in poverty. With considerable variation in the extent of inflation across regions of the country, marginal increases in expenditure growth among recipients might still translate into transitions out of poverty. Table 4 shows poverty transitions for recipients and non-recipients between 2005 to 2006 as well as between 2005 to 2007. Over the former period,

we find that 15 percent of UCT recipients moved out of poverty compared to six percent of non-recipients. At the same time, 10 percent of UCT recipients transition into poverty compared to five percent of non-recipients. Expenditures are simply relatively more volatile for recipients than non-recipients over the short-term. Meanwhile, by 2007, the poverty transitions remain roughly similar to one year earlier---a finding consistent with the relatively similar estimates of program impact through 2006 and 2007. Although we have not assigned causal interpretations to Table 4, the figures suggest that UCT recipients were relatively more likely to move into *and* out of poverty.<sup>25</sup>

In retrospect, the UCT program attempted to address three fundamental concerns of any social planner: (i) to ensure chronically poor households do not fall deeper into poverty as a result of income shocks, (ii) to protect near- and non-poor households from slipping into poverty, and most ambitiously (iii) to promote welfare improvements among poor households pushing them to higher expenditure gradients. As discussed below, a concomitant increase in rice prices ultimately constrained the welfare effects of the cash transfer on first order expenditure outcomes. In 2008, the GOI introduced another round of fuel subsidy cutbacks and a second UCT program lasting nine months. A rigorous impact evaluation of the program has not yet been conducted, though targeting outcomes have been assessed in detail by Alatas, Purnamasari, and Wai-Poi (forthcoming). In general the program appears to have been similarly targeted as the prior UCT renewing questions as to the effectiveness of Indonesia's targeting system. We return to this issue in the next section when discussing proposed improvements to targeting procedures and the future role of cash transfers in Indonesia's social protection system.

## ***2.2.2 Scholarships and School Operational Assistance Grants***

In the 2001/2 academic year, the GOI utilized PKPS-BBM funds to implement a new scholarship program known by its Indonesian acronym BKM<sup>26</sup> for students in primary, junior and senior secondary schools. Operating alongside the earlier JPS scholarships program, the BKM program provided scholarships to far more students and stipulated how scholarship funds could be spent. Nearly 20 percent of SD students and 26 percent of SMP students received scholarships in 2004. School committees were asked to designate eligibility based on flexible criteria similar to JPS.

After the March 2005 subsidy cutbacks, the GOI developed a new educational assistance program known as the school operational assistance program known by its Indonesian acronym BOS for the 2005/6 academic year. As part of the government initiative to achieve nine years of compulsory education, the Ministry of Education had calculated that 50 trillion Rupiah would be required annually to provide free primary and junior secondary schooling. The BOS program targeted SD and SMP schools, and unlike the DBO-JPS operational grants that went to the poorest 60 percent of schools in each district, the BOS program provided funds to all schools across the archipelago with SD and SMP schools receiving 235,000 and 324,500 Rupiah per student. Approximately 5.1 trillion Rupiah were allocated to all public and private schools in the country, serving approximately 39.6 million total students. Alongside BOS, education planners refocused the BKM program on SMA schools, increasing scholarship size to 60,000 Rupiah per month for nearly 700,000 senior secondary school students.

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<sup>25</sup> Recipient households' relative proximity to the poverty line could of course explain some of the difference with non-recipients.

<sup>26</sup> *Bantuan khusus murid*, special assistance for students.

The BOS program enabled schools to reduce or even cancel school tuition fees without adversely affecting the quality of education. In contrast to the BKM/JPS programs, which provided scholarship funds directly to poor students, BOS tasked school committees with allocating funds among any of the eleven expenditure categories stipulated in program guidelines.<sup>27</sup> Guidelines mandated the elimination of tuition in schools which prior to receiving BOS had charged tuition rates less than BOS funds. If pre-program tuition rates exceeded BOS funds, schools had to exempt poor students from fees and reduce tuition for other students. Schools provided additional assistance to poor students in the form of transportation, uniforms, school bags, stationery and reductions in other fees.

In practice, the BOS program operated as a generalized education subsidy targeting both supply- and demand-side outcomes. The program reduced the overhead costs of education allowing providers to allocate greater resources toward the variable costs generally borne by students' families. In a study of 43 schools across five provinces, only 23 percent of students received special assistance by way of BOS funds (SMERU, 2006). While the BOS program generated clear benefits to schools with extremely limited sources of revenue, it is unclear the extent to which poorer students benefited differentially. In some primary schools, BOS funds led to a near tripling of school revenue allowing schools to purchase writing utensils, supplementary teaching tools, textbooks, as well as to pay the salaries of temporary teachers.

Looking to the future, the GOI aims to continue providing supply-side support to schools including teacher training and performance pay programs while also linking cash transfers more directly to improved schooling outcomes. Since late 2007, a conditional cash transfer (CCT) program has provided household incentives to maintain enrollment levels as policymakers consider expanding existing an scholarship program targeting poor households.

### ***2.2.3 The Road to Universal Health Insurance***

In August 2003, the GOI launched the JPK-Gakin<sup>28</sup> program in the health sector. Financing for the program came primarily from two sources: PKPS-BBM compensation and special regional budgetary allocations (DAU). General program guidelines stipulated that poor households receive guarantees for free health services at public health clinics and hospitals. While evidence suggests that hospital utilization among beneficiaries has been low, this was the first time that a social assistance program in the health sector guaranteed hospital services for the poor. In early 2005, the GOI allocated approximately 3.9 trillion Rupiah of PKPS-BBM funds to expand and strengthen the JPK-Gakin program which then became known as the Health Insurance for the Poor program or Askeskin, its Indonesian acronym. The program initially aimed to provide 60 million Indonesian households with health service guarantees worth 5,000 Rupiah per person per month.

Three unique aspects of the Askeskin program set it apart from the previous JPS health programs. Firstly, unlike the JPS programs which provided unconditional grants to healthcare providers, Askeskin explicitly ties the grants to the amount of services provided to insured patients. Secondly, district governments are given the flexibility to design targeting and benefits schemes. In Tabanan

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<sup>27</sup> The categories included: registration fees, tuition fees, textbook procurement, improvements in teacher quality, extracurricular fees, transportation costs for poor students, school supplies, physical rehabilitation, utilities costs, testing fees, maintenance costs, teacher salaries, and housing costs for students in religious schools.

<sup>28</sup> *Jaminan pelayanan kesehatan untuk keluarga miskin*, health service guarantees for poor families.

district, Bali, for example, officials undertook their own data collection on poor households, drawing up a different list of recipients than BPS, which they viewed as too subjective. In Purbalingga district, East Java, officials designed separate insurance schemes for poor, previously poor and non-poor with the co-payment increasing in welfare status. Thirdly, the program planners in Jakarta established Management Units (Bapel) tasked with overseeing local design and implementation in each district, and in late 2004, the GOI also authorized PT Askes, a for-profit public health insurance corporation with little experience implementing social assistance programs, to provide benefits alongside the Bapel. This created a competitive process among service providers with two rather different modes of operation. At the end of 2005, regional governments were asked to evaluate the two institutions and determine whether to continue using only one of the providers or both simultaneously. Subsequently, PT Askes managed the program through 2007 at which time the program was expanded to an additional 16 million households and renamed Health Insurance for the Population or Jamkesmas, its Indonesian acronym. The new program is managed and operated by the Ministry of Health, which has enforced stricter eligibility criteria and claims verification (Sparrow, forthcoming).

A recent impact evaluation of Askeskin during its first year of operation finds that the program improved access to health care and also increased outpatient care utilization among the poorest quartile of households (Sparrow et al, 2010). The authors find that most of the increased usage occurred at public health facilities in rural areas and public hospitals in urban areas. By 2009, Jamkesmas had reached nearly 30% of Indonesian households with the benefit incidence outcomes being slightly less pro-poor than those of the UCT programs discussed earlier (Alatas, Purnamasari, and Wai-Poi, forthcoming). Coupled with evidence of the positive impact of the UCT on healthcare utilization (Bazzi, Sumarto, and Suryahadi, 2010), these findings point to a relatively successful government effort at boosting household healthcare usage across the country over the last several years. Moving forward, the GOI aims to continue improving the Jamkesmas program through more focused targeting and complementary supply side improvements.

### **3      *Moving towards a Permanent Social Protection Infrastructure***

Under the leadership of TNP2K, the GOI hopes to continue moving towards a more sustainable, integrated, and coherent social protection system. The framework upon which policymakers have settled is comprised of three clusters meant to improve the social and economic well-being of poor and near-poor households. The first cluster constitutes the major social assistance programs discussed in this paper including Raskin, the UCT and CCT, Askeskin and small but growing scholarship programs. This cluster forms the core of Indonesia's social protection system. Cluster two consists primarily of the National Program for Community Empowerment (PNPM), which was formally established in 2008 building upon the successes of the World Bank's Kecamatan Development Program. The program covers approximately 200 million Indonesians in over 70,000 villages across the country and is aimed at stimulating pro-poor local economic growth while also strengthening governance and institutions. The third cluster aims to expand the availability of credit to micro- and small-scale enterprises. In some respects, the second and third clusters fall outside the purview of social protection in that these programs are designed as long-term poverty alleviation and development strategies rather than compensatory social assistance packages.

In this section we review three key issues that must be addressed if Cluster 1 programs are to be successfully implemented as the first step towards a sustainable social protection system. First, the targeting of poor households must be improved. Second, the distinct role of conditional versus

unconditional transfers must be determined with respect to program goals. Third, the GOI must carefully weigh the costs of subsidizing rice consumption while maintaining protectionist barriers to imports that have the potential to induce substantial volatility in domestic prices.

### ***3.1 Improved Targeting***

A notable feature of the social protection programs reviewed thus far has been the relatively weak targeting outcomes. Though most programs are pro-poor, all suffer from considerable inclusion and exclusion errors. Alatas, Purnamasari, and Wai-Poi (forthcoming) document that nearly half of all poor households benefited from only one of the three most important recent social protection programs---UCT II, Raskin, and Jamkesmas---while one quarter of all non-poor households benefited from two or three of these programs.

The difficulty of targeting the poor and near-poor in Indonesia can be attributed to several factors. Firstly, inequality in Indonesia has been historically low relative to other developing countries in Asia and Latin America with large targeted social programs.<sup>29</sup> In countries with relatively lower inequality, the distinctions between poor and non-poor tend to be less sharp particularly given the clustering of households around the poverty line (Chaudhuri, Jalan, and Suryahadi, 2002). Secondly, like many developing countries, the majority of the labor force works in the informal sector and hence enumerators are forced to rely on non-income based measures of economic status to identify variation across households. Household expenditure can be used as a reasonable proxy for income, but with high income volatility during crises, expenditures can vary wildly over a short period of time making it difficult to assign accurate welfare scores at the household level. Predicting consumption-based poverty using non-consumption indicators also poses numerous challenges with respect to identifying the poorest households.<sup>30</sup> Lastly, although the absolute majority of poor households reside in rural areas, poor areas do not perfectly identify poor people.<sup>31</sup> In this setting, geographic targeting through allocation quotas at the district or sub-district level can be ineffective without timely and accurate household data.

Despite Indonesia's data-rich environment, at the time of the Asian financial crisis there was no up-to-date, sufficiently rich administrative data with which to gauge the impact of the crisis. Effective targeting required much more precise information than was available from previous household survey data, insufficient and outdated BKKBN household-level data, and infrequently collected student records.<sup>32</sup>

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<sup>29</sup> The country's Gini coefficient has fluctuated between .3 and .35 since the early 1970s (Suryadarma et al, 2005).

<sup>30</sup> See Suryadarma, Suryahadi and Sumarto (2006) and Alatas et al (2010).

<sup>31</sup> Sumarto, Wetterberg and Pritchett (1998) show that there was a rather low correlation between a district's initial level of poverty and the welfare impact of the crisis.

<sup>32</sup> Policymakers and researchers fielded four major criticisms of using the BKKBN list for targeting: (i) it does not capture transitory shocks to income as it is based on relatively fixed assets; (ii) it includes non-economic criteria irrelevant to the health and nutrition-based welfare outcomes to which SSN programs are targeted (e.g. whether the family is able to meet religious obligations); (iii) the list is compiled by poorly trained workers at the village level so consistency across regions is uncertain; and (iv) the list is susceptible to changes by local government officials. "...to say it [BKKBN data] was based on a "survey" overstates the formality and rigor of the process. Also the list was not centralized or computerized, but the list of household names was maintained at the local level and the higher levels of government only had access to summary reports of the number of households in each group" (Pritchett, Suryahadi and Sumarto, 2002, p. 7).



Since the crisis, the targeting resources available to social assistance program administrators has improved somewhat. By 2005, the SMERU Research Institute had built a poverty map covering nearly every village in Indonesia and providing policymakers with highly disaggregated estimates of variation in economic well-being within and across villages. Additionally, prior to the rollout of the UCT in late 2005, BPS conducted a short survey of nearly 20 million households as input to the proxy means test (see above). In 2008, the survey was administered again as eligibility lists were redrawn for the second UCT.

At present, plans are still underway to update the eligibility lists and more importantly to establish a national targeting system for all social protection programs disbursed at the household level through the creation of the Targeting Working group led by TNP2K. The aim of this initiative is to improve the accuracy of social programs in reaching the poor through the creation of a unified database of poor households. The database will include names and addresses of the poorest 40% of the population from which implementing agencies can draw lists of beneficiaries eligible to receive different social programs. Thus the goals of TNP2K on this front are: a) to develop a system to identify the poorest households in Indonesia based on scientific methods and unified technical criteria; b) to minimize targeting errors in order to improve the effectiveness of Indonesia's social protection programs; and c) to facilitate the coordinated use of a high-quality database of poor households by social protection program stakeholders. TNP2K is currently working closely with the Central Bureau of Statistics and the World Bank to oversee the coordination of the large scale survey of poor households (PPLS) planned for July this year. Efforts are being made to improve the methodology used to collect and analyze the data. The details of the targeting methods are currently being finalized, and the final decisions will depend on which methods are expected to be the most feasible and to achieve the best results in terms of reduced leakage and under-coverage. The future national targeting system will involve: a) managing the data required for program targeting; b) ensuring that implementing ministries improve the targeting of national poverty reduction programs using data managed by the working group; c) monitoring and evaluating the targeting performance of national poverty reduction programs.

### ***3.2 Conditional vs. Unconditional Cash Transfers***

Unlike the unconditional cash transfer programs in 2005 and 2008, which were intended to assist a large number of poor and near-poor households during temporary periods of high inflation, the conditional cash transfer program begun in 2007 was designed to provide longer-term financial support to a narrowly targeted group of very poor households. By 2010, the CCT program was operating in 20 of Indonesia's 33 provinces serving almost 800,000 households deemed chronically poor. The program specifically targets households with pregnant or lactating women or children aged 0-15 years with the benefits schedule ranging from 600,000 to 2.2 million Rupiah annually depending on household structure. Receipt of benefits is conditional on (1) enrollment and attendance of children aged 6-15, and (2) visits to health clinics for a range of services meant to improve maternal and infant health.

Yulaswati and Sumadi (forthcoming) and a recent report by the World Bank (2011) identify several findings of interest based on an early evaluation of the program. First in program areas and particularly among recipient households, the CCT led to increases in pre- and post-natal visits to health centers, infant weight monitoring, delivery-assisted births, and immunization rates. The impact on enrollment rates was less pronounced, though absenteeism and hours worked outside of school was found to be significantly lower among children in beneficiary households. The program's

effectiveness was moreover found to be strongest in areas with a deeper supply and delivery of public services. On net, the authors find that the CCT led to small improvements in child and maternal health and education indicators while also pressuring local governments to improve schooling and health facilities. As the program and its beneficiary children continue to age over subsequent years, it is expected that the magnitude of these impacts will grow accordingly.

An important question is whether the benefits of tying cash transfers to behavioral outcomes outweigh the high costs of administering conditionality. Bazzi, Sumarto, and Suryahadi (2010) find that the UCT enabled school-age students in poor households to spend less time working during the academic year. The effect on enrollment was much more muted given that so few students dropped out of school (see Tables 2 and 3). In the absence of a rigorous evaluation comparing the effect of the UCT and CCT in a single estimating framework, we are unable to determine whether the conditionality component imparts differential benefits to households. As additional survey data arrive over the next few years, this sort of evaluation may be feasible in the Indonesian setting. Recent evidence from a randomized evaluation in Malawi finds that both conditional and unconditional cash transfers led to declines in dropout rates, but the effect of the CCT was only 43% as large as the UCT (Baird, McIntosh and Ozler, forthcoming). Furthermore, the authors argue that given low *marginal* costs of administering conditionality, a CCT program ends up being a more cost-effective means of increasing and sustaining enrollment. Other evidence from the Bolsa Escola CCT in Brazil highlights the important role of conditionality in enabling parents to monitor children with a high propensity for absenteeism (Coffman and Burzstyn, 2011).

To date, the prevailing view among Indonesian policymakers has been that UCTs should serve as compensatory programs to prevent poor and near-poor households from slipping deeper into poverty while a CCT can be designed to lift chronically poor households out of poverty over a longer time horizon. At present, there is discussion of re-introducing a UCT program to operate alongside the CCT. The extent to which these two schemes complement or substitute one another remains an open empirical question to which policymakers and researchers should direct careful analysis in the coming years.

### ***3.3 Rice Policy and the Future of Raskin***

Since the end of the Asian financial crisis, the government has introduced increasingly protective policies with respect to rice imports generating demonstrable effects on domestic prices. Although Indonesia has typically relied on imports for less than 8 percent of overall rice consumption, these imports, sourced primarily from Thailand and Vietnam, have played a considerable role in stabilizing domestic prices. Thus, 15 months after an official ban on imports was instituted in January 2004, domestic rice prices began to spike at precisely the time when world prices began to fall. This can be seen clearly in Figures 7 and 8. Though the ban on imports would effectively shield Indonesian consumers from the massive price shocks of early 2008, it would do so at the cost of permanently higher prices. It remains to be seen whether domestic prices will stay above world prices as the latter potentially return to lower levels over the coming months.

The ban on imports and subsequent increase in domestic rice prices has been identified by several authors (World Bank, 2006; McCulloch, 2008; Warr, forthcoming) as the central cause of the otherwise anomalous increase in poverty incidence of 1.8% occurring between 2005 and 2006 (see Figure 1). Despite the introduction of the UCT and an expansion of Raskin benefits around the same time, near poor household were unable to cope with rising prices of their single most

important consumption good. Certainly, while several million poor rice farmers potentially stood to gain from higher prices that could be fetched for their agricultural output. The extent to which these gains accrued to poor households remains an open empirical question.<sup>33</sup> What remains uncontroversial is the fact that net rice consumers experienced a significant real income shock as rice prices ratcheted beyond their highest prior peak in the chaotic volatility of the Asian financial crisis (see Figure 8).

Throughout this period of steadily rising domestic rice prices, millions of households continued to receive subsidized rice through the Raskin program. Drawing on the budgetary savings from fuel subsidy reductions, the GOI was actually able to extend Raskin benefits to an additional 10% of households between 2005 and 2007.<sup>34</sup> Whereas average market prices of rice were around 6,000-7,000 Rupiah per kilogram, Raskin entitled recipient households to 10 kilograms of rice per month at subsidized prices ranging from 1600-2000 Rupiah per kilogram. Given the prevalent availability of subsidized rice and the low price elasticity of rice demand, consumption of rice remained relatively constant while aggregate supplies were more restricted than years prior to the ban. This came at a substantial cost to poor households for which average household consumption is around 40 kilograms per month. Under the optimistic assumption that Raskin beneficiaries obtain the full 10 kilograms per month at subsidized prices, the higher prices they were now forced to pay for the remaining 30 kilograms effectively undermined the coherence of the government's key social protection policy with respect to food security. In a setting with lower and more stable prices, Raskin indeed has the potential to serve as a primary source of food security for recipients.<sup>35</sup> The key will be to identify the appropriate middle ground between the risk of exposure to volatility in world prices and the sustained upward pressure on domestic prices in the absence of much-needed imports.<sup>36</sup>

#### **4      *Lessons Learned and Ongoing Debates***

The government of Indonesia has an obligation to intervene in protecting the most vulnerable members of Indonesian society against the pernicious effects of market failures driven by the inability of poor households to articulate demand for social services through formal market mechanisms. Indonesia's social protection policy in the last decade reflects clear progress towards addressing these failures while distributing the gains from growth more equitably. This began with the JPS programs, which set the stage for the institutionalization of a social protection framework at all levels of governance. In subsequent years, policymakers utilized the *Raskin* program and also introduced new cash transfer, education and health programs to manage a gradual transition away from regressive fuel subsidies. Throughout this process, we have witnessed a steady growth in progressive public spending.

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<sup>33</sup> McCulloch (2008) provides a convincing ex ante analysis of the expected effects on poverty using retrospective household survey data. A more thorough ex post analysis based on local farm-gate price data, agricultural income, and household welfare has yet to be conducted.

<sup>34</sup> This calculation is based on *Susenas* data from 2005 and 2007.

<sup>35</sup> At the same time, a social protection program focusing on nutrition rather than food subsidies may be more appropriate to address chronic stunting of children. The World Bank *Nutrition at a Glance* report from 2009 indicates that 37 percent of Indonesian children under the age of five are stunted, 18 percent are underweight, and 14 percent are wasted.

<sup>36</sup> Dawe (2008) argues that this middle ground can be achieved with a small import tariff on the order 4-5%.

Nonetheless, key challenges remain. Targeting is an ongoing difficulty; poor data quality and weak accountability leads to errors of inclusion and exclusion across a wide range of social services. Poor coordination across agencies remains an issue, and the lack of timely, local monitoring of economic conditions limits responsiveness to economic shocks. Policymakers must also wrestle with the realities of the modern Indonesian political environment, where media personalities and opposition politicians can easily misrepresent complex proposals in their criticism, pandering to populist tendencies and ignoring technical nuance. Rapid political decentralization, though essential to local flexibility, may also impair the incentives and information available to decision makers. Ultimately, though, the fate of the poor hinges on factors other than improved targeting, perfect coordination, and appropriately calibrated conditionality.

A truly sustainable reduction in poverty requires deeper investment in rural areas where the majority of the poor live, a reduction in the instability of food commodity and particularly rice prices, serious labor market reforms *and* a secure financing scheme for a permanent social safety net for poor households.<sup>37</sup> GOI spending on social assistance programs, which has hovered around 0.5% of GDP in recent years, has generally been lower than other developing countries at comparable income levels (World Bank, 2009). Further reforms to existing commodity subsidy programs and an improved taxation system could generate substantial revenue gains that could then be reallocated towards more progressive forms of social spending. An equitable and efficient social safety net is one of the vital mechanisms in halting the intergenerational transmission of poverty. Indonesia's policymakers undoubtedly have the tools and the experience to emerge as a leader among developing countries in an increasingly crisis-prone global economy.

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<sup>37</sup> These key issues are addressed at length in the forthcoming edited volume *Employment, Living Standards and Poverty in Contemporary Indonesia*, a text prepared by several leading Indonesian and foreign researchers with intimate knowledge of the Indonesian economy.

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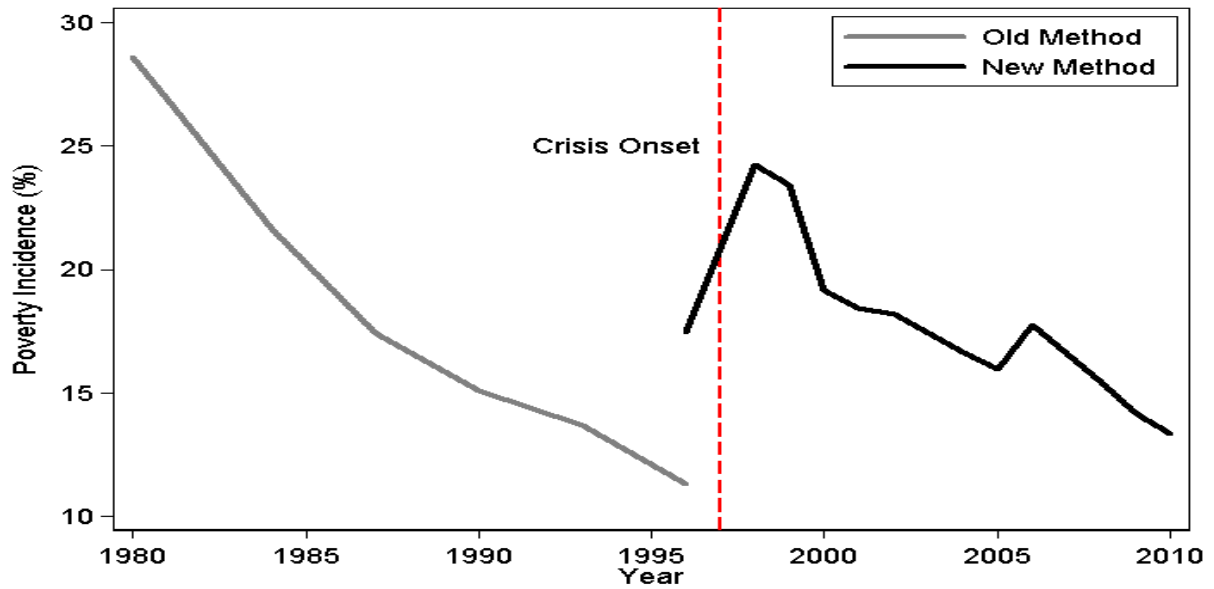
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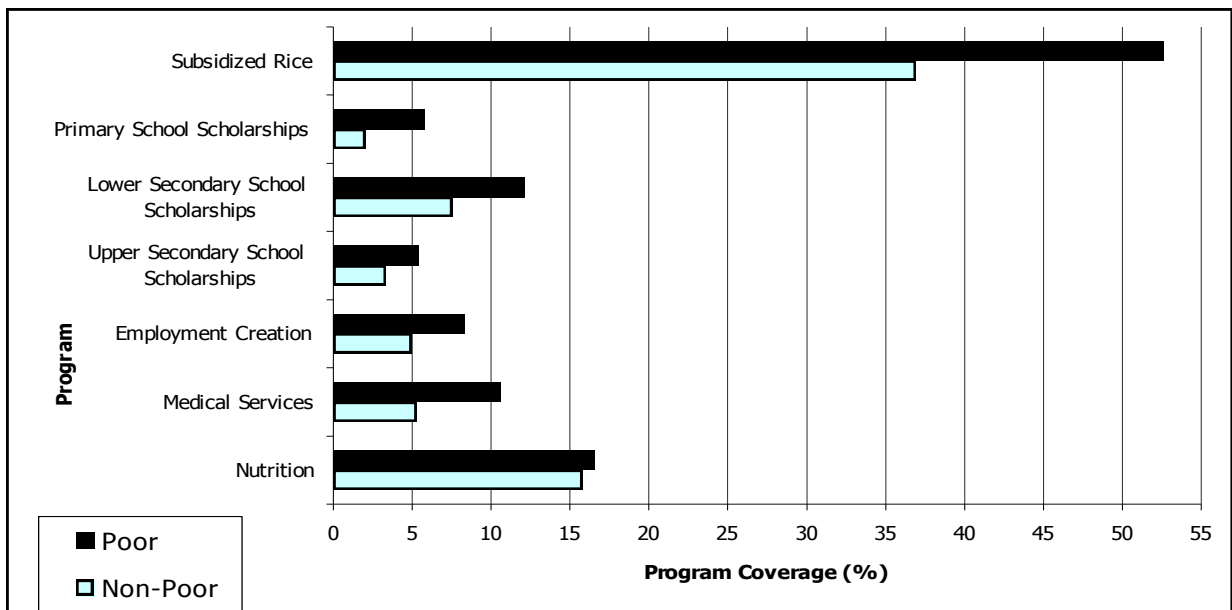
## Figures

**Figure 1:** The Evolution of Poverty in Indonesia, 1980-2010



*Source:* BAPPENAS calculations using *Susenas* data. *Notes:* The new method of constructing the poverty line introduced in 1996 uses a price index based on a consumption basket that more accurately reflects the consumption behavior of relatively poorer households. The new and old methods are not comparable over time.

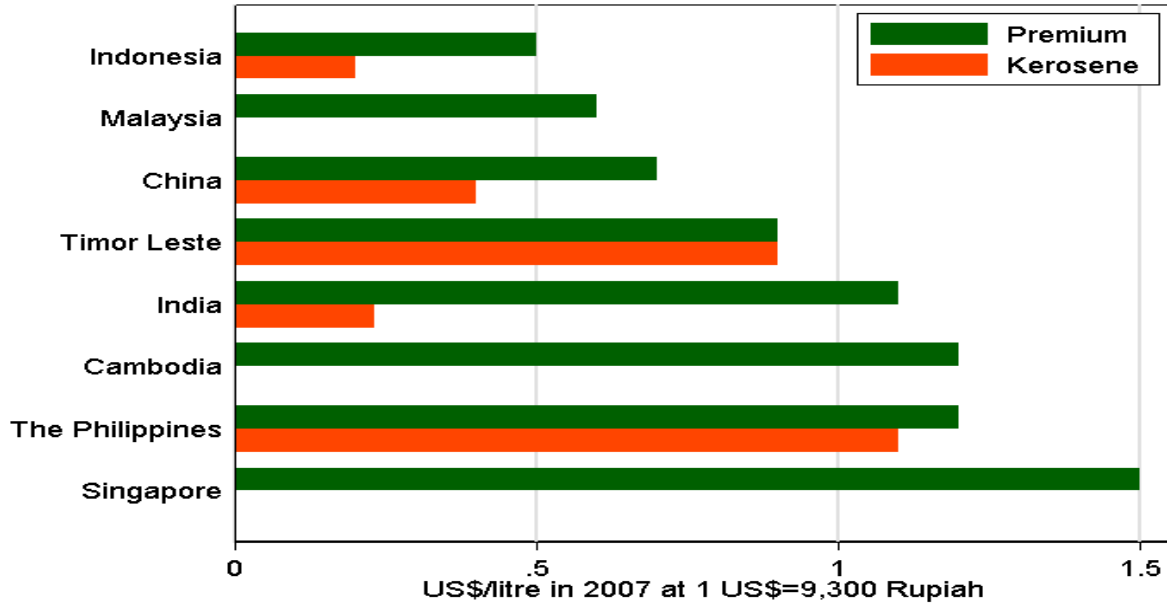
**Figure 2:** Targeting Outcomes of JPS Programs



*Source:* Sumarto, Suryahadi, and Widyanti (2005).

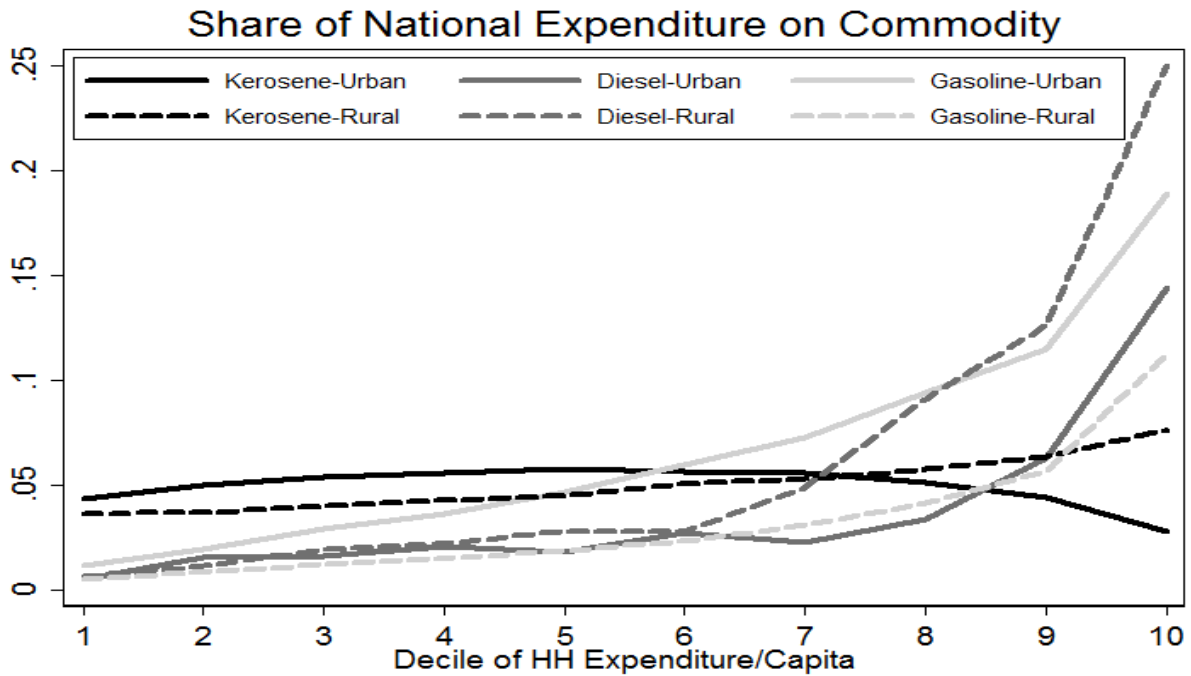


**Figure 3.** Comparison of Fuel Prices Across Asian Countries



Source: Widiyanto, (2009)

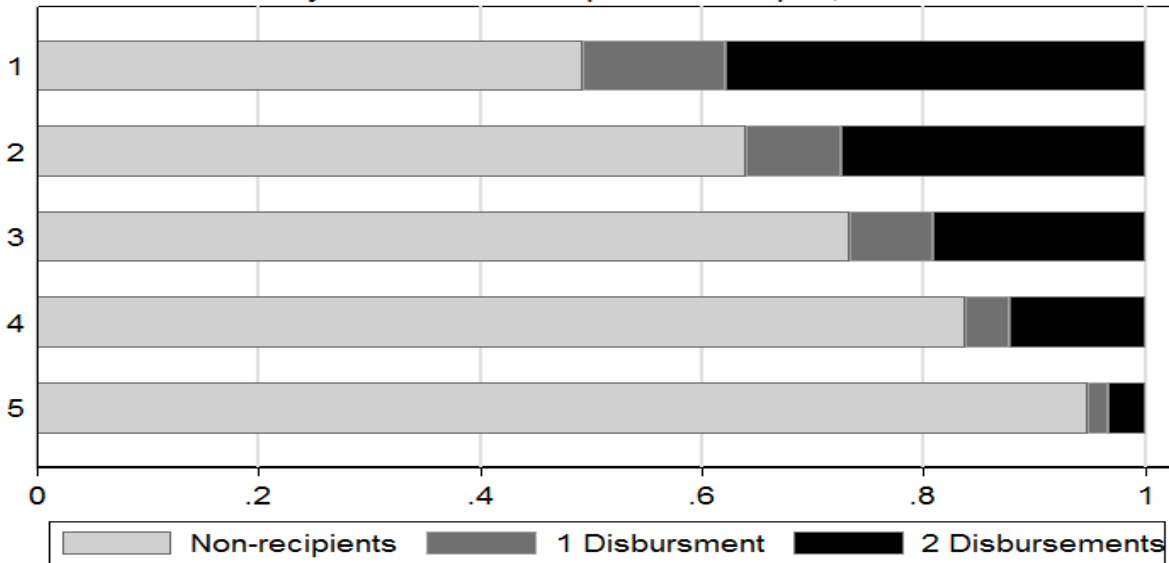
**Figure 4.** Benefit Incidence of Fuel Products



Source: Susenas 2004. Notes: The figures are calculated using the probability weights provided by BPS.

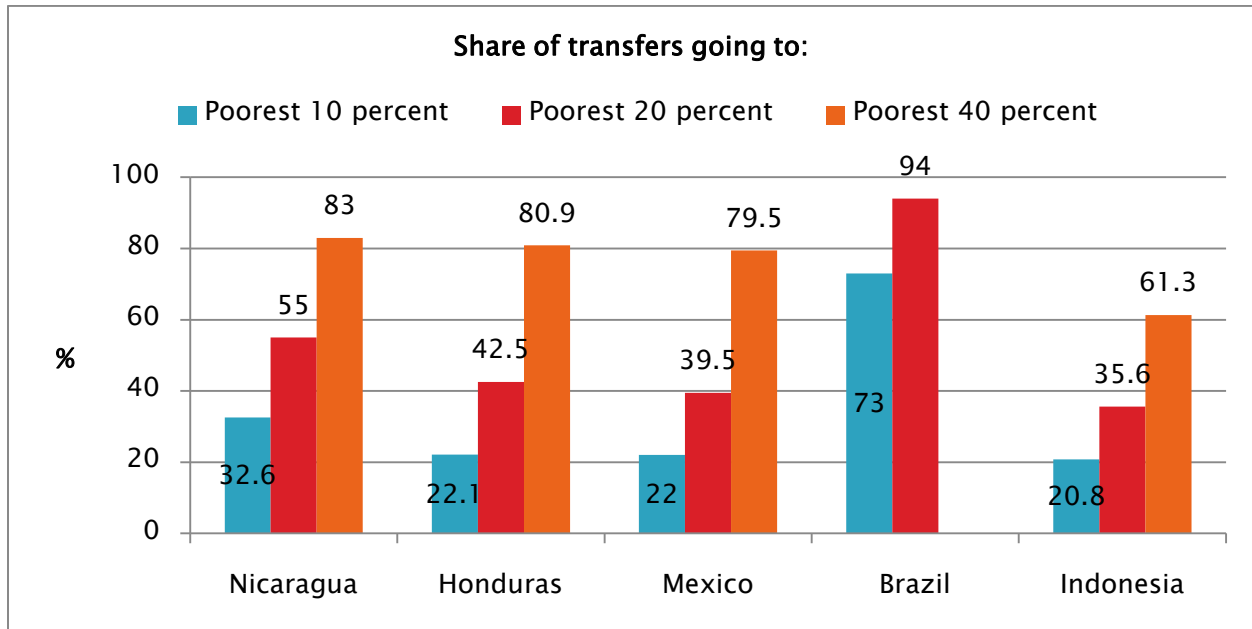
**Figure 5:** Targeting Performance of the Unconditional Cash transfer

Share of Household Reporting 1, 2, or no UCT Disbursements in Early 2006  
by Quintile of HH Expenditure/Capita, 2005



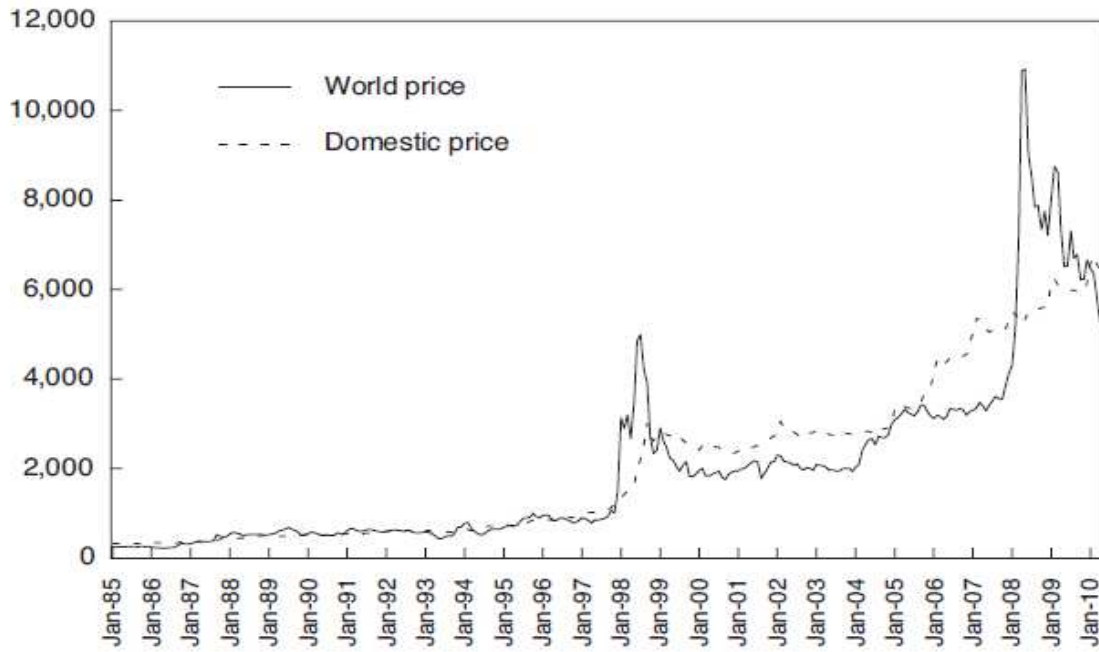
Source: Susenas panel 2005-2006. Notes: Households report whether they receive the 1st and 2nd disbursements. The expenditure quintiles are calculated based on total pro-rated monthly non-food expenditures and food expenditures in the last week.

**Figure 6:** Comparison of Cash Transfer Targeting across Countries



Source: Widiyanto (2009).

**Figure 7:** Nominal Domestic vs. World Rice Prices, 1985-2010



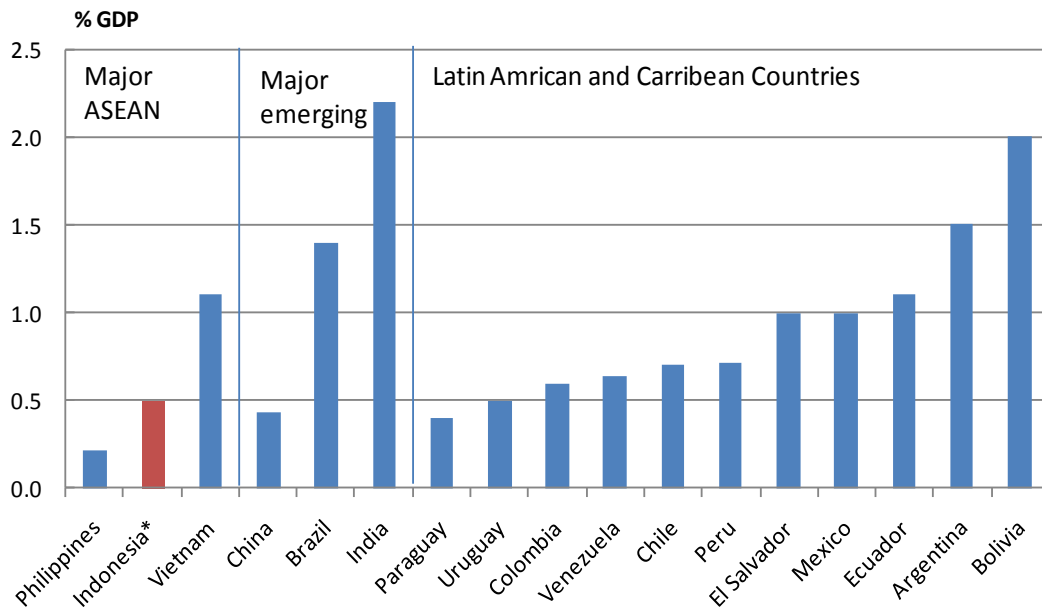
Source: Warr (forthcoming).

**Figure 8:** Real Domestic Rice Prices, 1985-2010



Source: Warr (forthcoming).

**Figure 9.** Social Assistance Spending in Developing Countries



Source: World Bank (2009).

## Tables

**Table 1:** Details of SSN programs in Indonesia during the economic crisis

<i>Program</i>	<i>Description of benefits</i>	<i>FY 98/99 Budget Rp billion</i>	<i>Planned Coverage</i>	<i>Targeting in Fiscal Year 1998/99</i>
<b>OPK (subsidized rice)</b>	Sales of subsidized rice to targeted households	5,450	12.8 million KPS and KS I households	<b>Geographic:</b> BKKBN pre-prosperous rates
				<b>Household:</b> BKKBN list
<b>Padat karya programs (employment creation)</b>	A loose, uncoordinated collection of several "labor-intensive" programs in a variety of government departments	2,066	12.7 million man-days.	<b>Geographic:</b> None
				<b>Household:</b> Weak self-selection by wage rate
<b>SBG (scholarships and block grants to schools)</b>	Providing scholarships directly to elementary, lower secondary, and upper secondary students and block grants to selected schools	1,138	6% of primary, 17% of lower secondary, 10% of upper secondary school students.  60% of schools.	<b>Geographic:</b> Data on enrollment in 1997
				<b>Household:</b> By school committees
<b>SSN-BK (health cards)</b>	Providing subsidies for medical services, operational support for health centers, medicine and imported medical equipment, family planning services, supplemental food, midwife services.	1,043	7.4 million KPS households	<b>Geographic:</b> BKKBN pre-prosperous rates
				<b>Household:</b> BKKBN list
<b>PDM-DKE (community empowerment)</b>	Block grants for villages for public works or revolving funds for credit.	1,701	Almost all villages in the country	<b>Geographic:</b> 1997 data on district poverty rate
				<b>Household:</b> Local decision making

**Table 2:** Binary Treatment Effects of Unconditional Cash Transfer

Dependent Variable	2005 to 2006		2005 to 2007	
	TOT	(Std. Error)	TOT	(Std. Error)
<i>Estimator: Double robust (conditional on covariates <math>X_j</math>)</i>				
$\Delta \ln(\text{total expenditure/capita})$	-0.036	(0.016)**	-0.036	(0.021)*
$\Delta \ln(\text{health expenditure/capita})$	-0.029	(0.046)	-0.041	(0.076)
$\Delta \text{Outpatient Utilization/capita}$	0.058	(0.022)***	-0.002	(0.028)
$\Delta \text{Inpatient Utilization/capita}$	-0.010	(0.036)	-0.001	(0.025)
$\Delta \ln(\text{education expenditure/student})$	-0.013	(0.046)	-0.200	(0.129)
$I(\text{student } j \text{ dropout})$	0.002	(0.002)	-0.001	(0.004)
$\Delta(\text{share students working})$	-0.011	(0.006)*	-0.017	(0.009)*
$\Delta(\text{hours worked per student})$	-0.204	(0.118)*	-0.167	(0.185)
$\Delta \text{Hours worked per adult}$	-1.018	(0.491)**	-0.641	(0.645)

Significance levels : \* : 10% \*\* : 5% \*\*\* : 1%

Source: Susenas panel 2005-2007. Notes: Full details on the variable construction and estimation strategy can be found in Bazzi, Sumarto, and Suryahadi (2010). Available upon request.

**Table 3:** Multivalued Treatment Effects of Unconditional Cash Transfer

Dependent Variable	D=1 Recipients		D=2 Recipients		TOT(1)=TOT(2) [p-value]
	TOT	(Std. Error)	TOT	(Std. Error)	
<i>Estimator: Double robust (<math>X_j</math>)</i>					
$\Delta \ln(\text{total expenditure/capita})$	-0.110	(0.031)***	-0.063	(0.019)***	[0.065]*
$\Delta \ln(\text{health expenditure/capita})^\dagger$	-0.171	(0.067)**	-0.005	(0.044)	[0.020]**
$\Delta \text{Outpatient Utilization/capita}$	0.057	(0.033)*	0.035	(0.022)	[0.575]
$\Delta \text{Inpatient Utilization/capita}$	0.005	(0.044)	-0.028	(0.031)	[0.301]
$\Delta \ln(\text{education expenditure/student})^\ddagger$	-0.211	(0.071)***	0.013	(0.043)	[0.003]***
$I(\text{student } j \text{ dropout})^\ddagger$	0.001	(0.002)	0.002	(0.001)	[0.731]
$\Delta(\text{share students working})$	-0.012	(0.011)	-0.004	(0.006)	[0.482]
$\Delta(\text{hours worked per student})$	-0.209	(0.232)	-0.110	(0.110)	[0.675]
$\Delta \text{Hours worked per adult}$	-1.177	(0.890)	-1.339	(0.542)**	[0.872]

Significance levels : \* : 10% \*\* : 5% \*\*\* : 1%

Source: Susenas panel 2005-2007. Notes: Full details on the variable construction and estimation strategy can be found in Bazzi, Sumarto, and Suryahadi (2010). Available upon request.

**Table 4:** Poverty Transitions by Poverty and UCT Recipient Status

Poverty Status, 2005	Poverty Status			
	2006 (N=9050)		2007 (N=7016)	
	Poor	Non-Poor	Poor	Non-Poor
Poor	0.17, 0.05	0.15, 0.06	0.09, 0.02	0.10, 0.04
Non-Poor	0.10, 0.05	0.59, 0.84	0.17, 0.07	0.64, 0.88

*Source:* Susenas panel 2005-2007. *Notes:* The ( blue, red) entries in each cell are the share of recipients and non-recipients, respectively, moving from the given row to the given column in 2006 or 2007. Further details can be found in Bazzi, Sumarto, and Suryahadi (2010). Available upon request.