

**IMF Paper on Policy Analysis and Assessment**

© 1998 International Monetary Fund

This is a *Paper on Policy Analysis and Assessment* and the author(s) would welcome any comments on the present text. Citations should refer to a *Paper on Policy Analysis and Assessment of the International Monetary Fund*. The views expressed are those of the author(s) and do not necessarily represent those of the Fund.

PPAA/98/7

INTERNATIONAL MONETARY FUND

Fiscal Affairs Department

**Mitigating the Social Costs of the Economic Crisis and the Reform Programs in Asia**

Prepared by S. Gupta, C. McDonald, C. Schiller, M. Verhoeven, Ž. Bogetić, and  
G. Schwartz<sup>1</sup>

June 1998

**Abstract**

This paper presents a preliminary analysis of the likely social impact of the economic crisis and the reform programs in three Asian countries—Indonesia, Korea, and Thailand. The focus is on likely changes in real consumption expenditures arising from higher inflation and increases in unemployment. The current social policy measures adopted in the reform programs should provide significant social safety nets for the poor. However, if the social impact turns out to be larger than projected, it would be worthwhile to assess cost-effective and efficient alternatives for expanding social safety nets. The paper presents some options that could be considered.

JEL Classification Numbers: E65, H53, H55, I32

Keywords: poverty, social safety nets, social impact, Asia

Author's E-Mail Address: [sgupta@imf.org](mailto:sgupta@imf.org)

---

<sup>1</sup>The authors would like to thank Vito Tanzi, Peter S. Heller, Ke-young Chu, James Corr, Joshua Felman, Eliot Kalter, Graciana del Castillo, Benedict Clements, Joshua Greene, Javier Hamann, Susan Jones, Michael Sarel, and various colleagues in Fiscal Affairs Department for their helpful suggestions. The usual disclaimer applies.

## I. INTRODUCTION

The purpose of this paper is to (1) carry out a preliminary analysis of the likely impact of the economic crisis and the reform programs on the living standards of the poor in three Asian countries—Indonesia, Korea, and Thailand; (2) examine the range of existing social policy instruments currently in place in these countries; (3) review the new measures incorporated in the reform programs under implementation in the three countries; and (4) list additional policy options that could be considered if the need for strengthening safety nets arises. In analyzing the social impact of the economic crisis and the reform programs, the primary focus is on likely changes in real consumption expenditures.

The paper is structured as follows. Section II provides background information on the economic and social situation existing in Indonesia, Korea, and Thailand before the onset of the financial crisis and reform programs. Section III analyzes the impact of higher prices and reduced employment opportunities on the living standards of the poor. Section IV describes the existing social policy instruments in the three countries. Section V discusses the measures already included in Fund-supported programs that are aimed at mitigating the adverse effects of the crisis. Section VI proposes options that may be considered to strengthen these initiatives if the need to do so arises.

## II. BACKGROUND

Despite sharing high rates of economic growth and low unemployment rates before the crisis, there are important differences in the economies of Indonesia, Korea, and Thailand (Table 1). First, Indonesia and Thailand were still relatively poor countries with per capita GDP in 1997 of \$1,072 (\$4,796 in PPP terms) and \$2,514 (\$8,816 in PPP terms), respectively, while Korea has a per capita GDP of \$9,847 (\$13,753 in PPP terms). Second, the number of poor people is largest in Indonesia (22 million), while Korea and Thailand are estimated to have similar numbers of poor people (7 and 8 million, respectively). However, in relation to the total population, the number of poor is smallest in Indonesia, which partly reflects its relatively low poverty line (\$10 per month, against \$227.1 in Korea, and \$27.8 in Thailand).<sup>2</sup> Third, income distribution is most equal in Korea and Indonesia where the Gini coefficients are 0.34 and 0.35, respectively, while in Thailand, the Gini coefficient is 0.43. However, the distribution of financial wealth is believed to be more unequal in these countries.

---

<sup>2</sup>These are country specific poverty lines as opposed to an internationally uniform poverty line (e.g., the \$1 a day poverty line reported in World Bank, 1997). The national poverty line reflects how poverty is viewed within that country. Although national poverty lines can not be readily compared across countries, they are more relevant for policy since they incorporate national norms and therefore have greater political and social acceptance within countries. For example, a minimum consumption for a person of US\$1 in PPP terms a day would be regarded as entirely insufficient in Korea, while it would be seen as a high minimum in Indonesia; in neither country this line is a relevant basis for policy recommendations. National poverty lines for the three countries are shown in Table 1. For *Indonesia*, the poverty line is based on caloric intake, as established by the Indonesian authorities. The U.S. dollar figure is shown in 1993 prices and is consistent with the Indonesian government published poverty head count index. For *Korea*, it is taken from Song (1997); the estimate of the Korean head count index is consistent with Whang and Lee (1997), who estimate poverty in the range of 10 to 20 percent of the population; and for *Thailand*, it is based on \$2 a day at 1985 international prices, as shown in Vinod Ahuja and others (1997).

Table 1. Basic Economic and Social Indicators 1/

	Indonesia	Korea	Thailand
<b>Population and employment</b>			
Population (in millions)	193.0	44.9	58.0
Labor force (in millions)	89.0	21.6	33.9
Population aged 60 and above (in percent)	7.0	9.0	7.0
Employment (in millions)	85.3	21.1	33.3
Official unemployment rate 2/ (in percent)	5.0	2.0	1.5
<b>Per capita income</b>			
PPP per capita income (PPP dollars)	4,795.9	13,752.8	8,815.6
GDP per capita (U.S. dollars)	1,071.9	9,846.5	2,514.1
<b>Poverty</b>			
Population below the poverty line (in percent of total) 3/	11.3	15.7	15.1
Number of poor (in millions)	22.5	7.0	8.8
Poverty line/mean consumption (in percent)	41.5	47.4	36.9
Poverty line per person (\$/month)	10.5	227.1	27.8
<b>Income distribution 4/</b>			
Income share of lowest quintile (in percent)	8.7	7.5	5.6
Income share of highest quintile (in percent)	40.7	24.3	52.7
Gini coefficient (multiplied by 100)	34.9	34.2	43.0
<b>Social indicators</b>			
Male life expectancy (in years)	62.0	68.0	67.0
Female life expectancy (in years)	66.0	76.0	72.0
Infant mortality (Per 1,000 births)	51.0	10.0	35.0
Adult illiteracy rate (male) (Percent over 15 years of age)	10.0	1.0	4.0
Adult illiteracy rate (female) (Percent over 15 years of age)	22.0	3.0	8.0

Source: World Development Indicators, World Bank, 1997; World Economic Outlook, IMF, 1997 for data on PPP per capita income, employment and unemployment rates; and estimates from household expenditure surveys.  
1/ Data are for the years 1992-97.

2/ For Thailand, data refer to 1996 and include voluntary unemployment. At end-1997, the unemployment rate had increased to 4 percent.

3/ Head count index.

4/ Data on Indonesia and Thailand are from ILO statistics on poverty and income distribution, and for Korea, Song (1997).

Fourth, the income share of the poorest quintile is highest in Indonesia, while the income share of the richest quintile is lowest in Korea. Fifth, the poverty line, as a proportion of mean consumption, varies from 36.9 percent in Thailand to 47.4 percent in Korea.<sup>3</sup> Finally, social indicators for health status and education attainment suggest that in terms of social outcomes, Indonesia is less equitable than Thailand and, in particular, Korea. Life expectancy is lowest in Indonesia and highest in Korea; infant mortality and adult illiteracy rates are highest in Indonesia and lowest in Korea.

These differences in the level of income, poverty, and income distribution are also reflected in social indicators. Korea, again, stands out as a country with the best social outcomes. For example, female life expectancy in Korea (76 years) is significantly higher than in Indonesia (66 years), with Thailand in between (72 years). Also, infant mortality in Korea is 10 per thousand births, as compared with 35 in Thailand and 51 in Indonesia. The female illiteracy rate in Korea is 3 percent, compared with 8 percent in Thailand and 22 percent in Indonesia.

Poverty in both Indonesia and Thailand is concentrated in rural areas. In Indonesia it is most prevalent among agricultural workers, the self-employed, and construction workers. In 1993, these groups constituted over 70 percent of all poor. The urban poor are found among

---

<sup>3</sup>Mean consumption is estimated from household expenditure surveys. For Indonesia, household expenditure data from 1993 were used, for Thailand household data from 1992 were used, and for Korea household data from 1996 were used. Results from the 1996 Indonesia household expenditure survey were not available at the time of preparation of this paper.

the self-employed in trade activities. In 1996, as much as 12 percent of the rural population was poor, against 10 percent of the urban population. Since the 1970s, major strides in poverty reduction have been made in the rural areas of Indonesia. There are regional pockets of poverty, especially in Java and Irian Jaya. Poverty in Thailand is concentrated among agricultural workers. Households headed by production workers, who are at the most immediate risk of unemployment, constitute 27 percent of households in the Greater Bangkok area, but only 9–14 percent in other areas.

### **III. THE ADVERSE IMPACT OF HIGHER PRICES AND REDUCED EMPLOYMENT OPPORTUNITIES ON THE POOR**

The economic and financial crisis in the three countries is being transmitted to households through a variety of channels—sharp exchange rate depreciation, financial sector collapse, corporate bankruptcy, changes in the rate of return on assets, and monetary and fiscal tightening.

While most households will be adversely affected by these changes, some households are likely to gain. For instance, the incomes of those engaged in the export sector and of agricultural producers who experience an improvement in the domestic terms of trade are likely to increase. Income gains in these sectors, however, will depend on a number of considerations, including their dependency on imports and their outstanding obligations in foreign currency.

Household financial positions are also likely to be affected by rising interest rates from both the income and expenditure sides. Although the rich may hold a larger stock of interest-bearing assets, their income gain could be offset by the falling values of assets held in the form of stocks and real estate. For households in the poorest income decile, interest outlays are likely to exceed their interest earnings.<sup>4</sup>

The adverse impact of the economic crisis and adjustment on household living standards of low-income households will manifest itself most importantly in price increases and the loss of job opportunities (see Chu and Gupta (1998) for the underlying analytical framework). In all three countries, domestic prices are rising as large exchange rate depreciations are passed through and public tariffs and indirect taxes are increased.<sup>5</sup> The economic downturn and the implementation of stabilization and structural measures are leading to layoffs, further reducing the real incomes of households.

---

<sup>4</sup>This is true insofar as households in the bottom decile have access to credit markets. Some poor households, such as retirees, may have net interest income.

<sup>5</sup>In *Korea*, electricity rates have increased by an average of 6.5 percent, bus fares by as much as 22 percent, and petroleum product prices by up to 12 percent, in addition to price increases triggered by exchange rate depreciation. On January 24, 1998, prices for liquefied natural gas went up by 13.6 percent and for liquefied petroleum gas by 7.2 percent. In *Indonesia*, administered prices for petroleum products were increased on May 4, 1998 (the price of kerosene went up by 25 percent, diesel prices were increased by 39 percent, and gasoline prices by 71 percent), but the price increases were partially rolled back on May 15, 1998, to a weighted average increase of 38 percent. Bus fares in Jakarta rose by up to 66 percent in May, depending on the particular type of service. Food prices rose by 20 percent in 1997, partly because of the drought, and by a further 35 percent during the first quarter of 1998. In *Thailand*, the VAT has been increased by 3 percentage points, while food prices have increased by 7 percent since the onset of the crisis.

While it is possible to analyze the adverse price and employment impact of the crisis and adjustment on household consumption and poverty using a fully articulated macroeconomic model, this paper opts only to highlight the likely short-term, *first round* impact on real household consumption expenditures.<sup>6 7</sup> However, there are many uncertainties associated with carrying out this type of analysis. It is unclear to what extent the loss in purchasing power due to inflation will be offset by nominal wage increases or reinforced by nominal wage cuts. It is also difficult to speculate on the possible role of dissaving and informal safety nets (more important in Indonesia and Thailand), and the likely safety net provided by firms (Korea), in mitigating income losses. In previous economic downturns in Korea (1980), Indonesia (1983), and Thailand (1984), significant consumption smoothing by households did moderate the mean consumption declines in these countries.<sup>8</sup> What is certain is that real household consumption would decline in these countries; a quantitative estimate of its precise magnitude is beyond the scope of this paper, however.

---

<sup>6</sup>The results are derived from fitting a parametric Lorenz curve on the household survey data, and computing how this Lorenz curve is affected by the fallout of the economic crisis under various assumptions specified below.

<sup>7</sup>Second-round effects, which would set in over the medium term, as the initial policy measures take hold and economic growth resumes, could eventually outweigh the first-round effects. However, there will also be adverse second-round effects (e.g., through falling school enrollment), reinforcing the initial adverse effects. The medium term could be studied with the help of Computable General Equilibrium models (see, e.g., Sahn, Dorosh, and Younger, 1996).

<sup>8</sup>There is also extensive evidence for Thailand to indicate that laborers and farmers use their accumulated savings to smooth their consumption in response to shocks (see Townsend, 1995, and Paxton, 1992). These findings are important, since agriculture is the principal occupation of 50 percent of household heads in Thailand.

### Price effects

In *Indonesia* the latest projection<sup>9</sup> for average inflation in 1998 is around 44 percent (Table 2); in February 1998 monthly inflation had already reached 12.8 percent, and food prices increased by 35 percent during the first quarter of 1998, on top of a 20 percent increase in 1997. In *Korea*, consumer price inflation trends appear to be relatively subdued, reflecting falling domestic demand and the absence of wage pressures. Whereas month-on-month inflation averaged 2 percent between December 1997 and February 1998, it fell to ¼ percent in March and April 1998.

The maximum impact of inflation on poverty will occur if mean real consumption of households were to decline by the expected average annual increase in prices for 1998. However, net producers of agricultural products are differently affected by price increases. Agricultural households who produce more than they consume would see an increase in their net earnings, although part of these earnings would be offset by higher input costs. This group—under the assumption that households owning more than 1.6 hectares of land are net producers—exceeds 25 percent of the population in Thailand. It is assumed that in Indonesia net agricultural producers constitute a similar proportion of households. As net producers of agricultural products are concentrated at the lower end of the income distribution, the likely increase in their earnings will cushion the impact of price increases on poverty.

---

<sup>9</sup>May 1998.

Table 2. Price Increases for 1997–98  
(Percentage change from the baseline)

	Indonesia	Korea	Thailand
General price increase 1/	44.0	10.5	11.6
Specific price increase 2/			
Food 3/	18.5	...	7.0
Energy and transportation 4/	...	15.6	11.0

Sources: IMF program documents; national price statistics.

1/ Estimated average inflation for 1998.

2/ For specific commodities, the following assumptions are made: For Indonesia, an 18.5 percent increase in food prices (the actual annual increase at end-1997); for Korea, a 51.9 percent increase in fuel prices (reflecting the increase in fuel tax of 12 percent, a 20 percent drop in the U.S. dollar oil price, and a 56 percent depreciation in the exchange rate); an average increase in the price of public transport by 18 percent; a 65 percent increase in the price of electricity; and for Thailand, an increase in food and energy prices of 7 and 11 percent, respectively (the actual increase between June and December 1997).

3/ Food price increases may be underestimated, since price changes in 1998 are likely to be larger.

4/ For Korea, price increases of energy and transportation items are weighted with their respective shares in the average consumption basket to derive the specific price increase.

In light of household responses during previous episodes of economic downturn, the effect of general price increases is likely to be offset, to varying degrees, by the combined effect of nominal wage adjustments, increases in other types of income (e.g., profits of the export sector),<sup>10</sup> dissavings, informal<sup>11</sup> and enterprise-provided safety nets, and substitution in consumption. In addition, not all population groups are equally affected by price increases. In Indonesia and Thailand, for example, there have been significant increases in the prices of food items. In all three countries, energy and transportation price increases have been large. The price increases of specific commodities mainly reflect the pass-through of exchange rate

<sup>10</sup>In particular in Indonesia export profits have remained depressed during the crisis.

<sup>11</sup>In Indonesia, the recent drought has considerably weakened the urban-rural ties.

changes on tradable commodities (such as selected food items and fuel). These price increases have a differentiated impact on households, depending on the shares of food and other critical items in a household's consumption basket.

A cut in mean real consumption could increase the number of households below the poverty line in all three countries. Ahuja and others (1997) estimated the elasticity of the head count index with respect to mean consumption expenditures in Thailand for the period 1985–1995 at -1.86. This would imply that if mean consumption expenditures fall by 10 percent, the head count index would increase by 2.8 percentage points in Thailand. The available expenditure survey for 1993 reveals that in Indonesia about 30 percent of the population is clustered just above the poverty line, indicating that the change in poverty would be very sensitive to declines in mean consumption. This is borne out by estimates of the elasticity of the head count index with respect to mean per capita income. These estimates range between -2.7 and -2.8 (Huppi and Ravallion, 1991, and UNDP, 1996). Also, it is worth noting that since the national poverty line is relatively low in Indonesia (almost one-third of Thailand's), further declines in consumption would have a very severe effect on Indonesia's poor.

Price increases for food items would have a significant impact on the consumption of the poor in Indonesia and Thailand who are not net producers of agricultural commodities. In Indonesia, the significant impact of food price increases would stem from the high share of food in total expenditure of a low-income household (71 percent); this share is even larger in

rural areas (74 percent). In Thailand, the share of food in the consumption basket of the lowest income decile is 55 percent, compared with 21 percent for the highest. Since there is little differentiation between the shares of energy and transportation items in the lowest and highest deciles, there is likely to be a less significant impact of specific price increases on the poor in Korea.

### **Employment effects**

The size and composition of job losses are difficult to predict at this stage. However, estimates by governments, national research institutes, and the ILO suggest that the reduction in employment may be large. In 1998, unemployment in *Indonesia* is expected to increase from 4.4 million to 7.9–9.7 million; in *Korea*, from 0.4 million to over 1.5 million; and in *Thailand*, from 0.5 million to around 1.8 million (Table 3). In *Korea*, the unemployment rate rose to 6.5 percent in March 1998, compared with 5.9 percent in February 1998, and 3.4 percent in March 1997. In January 1998 alone, 3,323 corporations were declared insolvent in Korea (107 companies a day), most of them small and medium-sized enterprises. In *Thailand*, 15,600 workers were made redundant with the closure of 56 finance companies. In addition, almost all of the 15 car assembly firms have canceled shifts and shut down production lines in response to a 20 percent drop in domestic sales, threatening the jobs of 30,000 workers.

Table 3. Estimated Unemployment  
(In millions)

	Indonesia	Korea	Thailand
1996	4.4	0.4	0.5
1997	...	0.7	1.2
1998 1/	9.7	over 1.5	1.8

Source: IMF program documents; national employment statistics; and ILO.

1/ For Indonesia, the unemployment estimate for 1998 is based on the assumption that GDP will shrink by 5 percent in real terms. Korea's projected 1998 unemployment was made by the Ministry of Labor following the jump in unemployment early this year. For Thailand, the projected unemployment rate is based on authorities' revisions in mid-March.

Critical for evaluating this impact are the following questions: who will become unemployed and how does higher unemployment reduce mean household consumption? It is likely that job losses in the formal sector would push skilled workers to jobs in agriculture and in the informal sector in two countries (Indonesia and Thailand) and affect the working middle class in the third country (Korea). The implication of these simplifying assumptions is that households in the upper and bottom quintiles will not be affected by job losses as much as other income groups.<sup>12</sup> The loss of employment by the head of household could cause the entire household to slide down the relative income scale. This makes households just above the poverty line the most vulnerable to declining job opportunities. Household size varies from an average of 3.7 people in Korea to an average of 4.5 people in Indonesia. In Indonesia,

---

<sup>12</sup>Thorbecke (1998) concludes for Indonesia that in the first round the greatest effect of the economic downturn would be felt by relatively well-off urban households, especially those in the banking, construction, and trade and services sectors.

increases in unemployment of the magnitude projected (5 million) would represent as much as 11.8 percent of all households if one person per household would become unemployed. Along similar lines, the projected 1 million additional unemployed in Korea and Thailand, represents as much as 8.2 percent and 6.7 percent of all households, respectively.

The increase in unemployment would reduce average real household consumption in the three countries, depending on the extent of the decline in household income positions. For instance, in Indonesia, average household consumption would decline by around 30 percent if all households in the middle three consumption classes in the national household expenditure surveys slid down by one consumption class.<sup>13</sup> The impact in Korea and Thailand would be expected to be half as much under similar assumptions. In Indonesia, the situation could be made much worse if new labor market entrants, numbering about 2.5 million annually, do not find jobs. However, in Thailand, the adverse employment effect would be reduced if some foreign workers were to return to their home countries. The increase in the number of poor in relation to the population as a result of rising unemployment would be highest in Thailand and lowest in Korea. The relatively small effect in Korea is traceable to the large difference between the average workers' consumption and the poverty line.<sup>14</sup>

---

<sup>13</sup>For Indonesia, the household expenditure survey reports 17 consumption classes; for analyzing the employment effects households were aggregated into 10 classes. The expenditure survey for Korea identifies 11 consumption classes, and that for Thailand 10 classes.

<sup>14</sup>The impact of economic contraction on poverty depends on the sectors of the economy that are affected the most. Thorbecke and Jung (1996) analyze the impact of changes in sectoral output on household incomes. They find that in Indonesia a reduction in output of the

(continued...)

In reality, both increased unemployment and prices will have a heavy impact on poverty, which could be magnified if prices of goods that constitute a relatively large share of the poor's consumption baskets rise by more than the average. For example, a rise in food prices disproportionately affects the poor, as discussed in the cases of Indonesia and, to a lesser extent, Thailand.

#### IV. THE EXISTING SOCIAL POLICY INSTRUMENTS

Among the three countries, Korea has the largest array of social policy instruments. Formal sector workers in Indonesia, Korea, and Thailand are eligible for various social benefits that have limited coverage. Benefits include: (1) old-age, disability, and survivor pensions, (2) sickness and maternity benefits, and (3) work injury benefits (see Appendix I). In Indonesia, old-age, disability, and survivor benefits are provided through a Provident Fund system, which pays only lump sum benefits; coverage is limited to firms with more than ten employees. In contrast, in Korea these benefits are provided through a social insurance system with coverage of firms with over ten employees (over five employees starting on June 1, 1998). In Thailand, currently only 10 percent of the labor force is covered by the pension system (Heller, 1997).

---

<sup>14</sup>(...continued)

agricultural and service sectors would have a larger impact on poverty than a similar reduction in industrial output. This is attributable to relatively large employment of unskilled poor in the agricultural and service sectors.

Indonesia and Thailand do not have unemployment insurance systems, while Korea introduced one in the early 1990s (see below). In addition, Korea has public assistance programs (livelihood protection, medical aid, veteran relief, disaster relief)—including means-tested subsidies for health care insurance—and social welfare service programs (for the disabled, elderly, children, vulnerable women, and the mentally handicapped). Various village-based social assistance programs also exist in Indonesia. These programs are targeted to the poor and a variety of disadvantaged groups. In Korea, eligibility criteria vary from program to program. Some of the criteria used in different programs are income, assets, age, marital status, and physical condition. In Indonesia, programs cover entire villages that are deemed poor. The job-for-life tradition in Korea has meant that the firm, in addition to the state, has provided a significant part of the social safety net.

The urban population in the three countries is likely to be the hardest hit initially by the rise in unemployment. With the emerging pressures to restructure the corporate sector in Korea, it is unlikely that enterprises will be in a position to provide the same level of social protection as in the past. This implies that the government may be required to assume greater responsibility in protecting the affected population groups and supporting the reform process.

## **V. SOCIAL MEASURES INCLUDED IN THE REFORM PROGRAMS**

The Fund-supported programs in Indonesia, Korea, and Thailand include measures to shelter the poor from the adverse effects of the economic crisis and the ongoing

macroeconomic adjustment. These measures comprise both new initiatives as well as the adaptation of existing social policy instruments to help the existing and new poor. The challenge has been to establish cost-effective and fiscally sustainable safety nets that do not create large labor market disincentives. Some of these measures are temporary and would be eliminated when the situation improves.<sup>15</sup>

While alleviating some of the hardship associated with the loss of a job, unemployment benefits change labor market incentives by increasing the reservation wage and by reducing the incentives for recipients to search for a new job. The recent experience in Europe of rising unemployment points to the adverse effects of unemployment benefits if they are too generous and available for a long period of time. In particular, the service sector offers a sizable potential for job creation in Indonesia, Korea, and Thailand. Overly generous social safety net benefits may delay new investments in this sector.

The experience of Mexico in dealing with the crisis in 1994 and 1995 illustrates the importance of labor market flexibility in mitigating adverse effects (Box 1). As in Mexico, it is likely that urban informal activities will absorb some of the unemployed in Indonesia and Thailand. Furthermore, some of the affected urban population may migrate to rural areas with the drying up of urban employment opportunities. These possibilities would reduce the demand for assistance through formal safety nets.

---

<sup>15</sup>For a general review of issues in and recent experiences with the design and implementation of social safety nets, see Chu and Gupta (1998).

### **Box 1. Mexico: The 1994 Economic Crisis and Market Labor Flexibility**

A series of adverse shocks, compounded by inadequate policy responses, led to the collapse of the Mexican peso in December 1994 and the subsequent financial crisis in 1995. To put the economy back on track, the authorities relied on four types of policies: sound macroeconomic adjustment, flexible labor markets, structural reforms, and social policy initiatives, and (sizable) financial assistance from international organizations, including the IMF and bilateral creditors. The adjustment efforts were helped by favorable external developments, such as high crude oil prices. Still, Mexico experienced a contraction of real GDP of around 6 percent in 1995, an increase in open unemployment from 3.2 percent in December 1994 to 7.6 percent in August 1995, and a decline in real wages of about 20 percent. The crisis, however, was swiftly contained and Mexico's economic recovery was rapid: the currency was stabilized; the inflation rate fell to under 16 percent by end-1997; interest rates declined; and the external current account deficit was slashed from 7 percent of GDP in 1994 to less than 1 percent of GDP in 1995. GDP grew by 7 percent in 1997, and open unemployment was reduced to 2.8 percent in December 1997.

There were five characteristics of the Mexican economy that allowed labor markets to adjust. First, the lack of comprehensive unemployment insurance limited open unemployment. Second, the urban informal sector was a buffer that absorbed excess labor supply when activity slowed down. Third, wage flexibility was high, which allowed production costs to adjust, and thereby reduced the necessity to dismiss workers. Fourth, emigration remained an outlet for a significant portion of the population. Finally, part of the rural population that moved to urban areas when the economy expanded moved back to rural areas when job opportunities dried up.

The Fund-supported programs include the following key measures. Options for further strengthening of policies are discussed in the next section.

#### **In Indonesia:**

- The government has instituted an across-the-board subsidy on items such as rice, corn, sugar, soybean, wheat flour, soybean meal, and fish meal distributed through the state

food import monopoly BULOG at the cost of 0.5 percent of GDP in 1998/99.<sup>16</sup> The subsidy for rice has been expanded to include rice distributed by private traders. In addition, the government is maintaining subsidies for petroleum products and electricity at over 1 percent of GDP. The subsidization of fuel and energy is designed to favor products disproportionately consumed by the poor (kerosene and diesel)<sup>17</sup> and the first 100 kwh to 250 kwh of electricity use. The subsidy on petroleum products will gradually be phased out.

- The government has initiated community-based public works targeted to both the poor and the new poor. These programs are to a large extent financed by the World Bank, Asian Development Bank, and bilateral foreign assistance.
- The distinctly pro-poor bias of primary/secondary school public spending is being maintained. The program calls for ensuring 9 years of education for all children. Provision is also being made for scholarships for needy students.
- The government is instituting programs to finance essential drugs for rural and urban health centers, and provides subsidies for low-cost housing.

---

<sup>16</sup>Including the interest rate subsidies to BULOG, the cost of the food subsidy amounts to 0.7 percent of GDP.

<sup>17</sup>Taking into account the roll-back, there was no increase in the price of kerosene in May 1998.

- The government is expanding its rural credit schemes to reach 6 million families, and is providing subsidized credit for small and medium-size enterprises and rural cooperatives with the help of multilateral and bilateral financial assistance.
- To facilitate the flow of goods across regions, with a view to eliminating local shortages and improving selling prices for poor farmers, the government has eliminated a number of restrictions and taxes on interprovincial and intraprovincial trade.

**In Korea:**

- During 1998, unemployment insurance coverage will be extended in steps to all workers in firms with more than five employees; the minimum benefit level will be raised to 70 percent of the minimum wage (from 50 percent); the minimum duration of benefits will be increased to two months; and the eligibility for benefits will be temporarily extended by reducing the minimum period of required contributions from one year to six months.<sup>18</sup> In addition, the Korean government has decided to provide training for a total of 250,000 persons in 1998, at a budgetary cost of W 415 billion (0.1 percent of GDP). Separately, subsidies are available for training provided within firms.

---

<sup>18</sup>Until end-1997, the unemployment insurance scheme had limited the benefits to companies with more than thirty employees and to a duration of between one and seven months.

- Allocation for social welfare assistance, including support to persons without incomes, will increase by at least 13 percent in 1998. In this context, the World Bank is advising the authorities on improving this and other social programs.
- In addition, the government is raising an amount of W 2.6 trillion (0.6 percent of GDP) outside the budget through bond issues by the nongovernment Employee Welfare Fund, which will help to expand special loan programs for the unemployed.

**In Thailand:**

- The government has initiated temporary labor-intensive civil works programs, including in the areas of construction and infrastructure rehabilitation. These and other poverty alleviation measures are financed through a World Bank loan amounting to B 15 billion over a three-year period.
- A Social Investment Fund to provide support for community and NGO activities (including community development programs and small credit schemes) and an Urban Development Loan Fund that will support labor-intensive investments by municipalities have been established.
- Social security contributions will be paid for unemployed workers for at least six months after they are laid off.

- Social spending is being strengthened by expanding scholarship and loan programs to minimize student dropouts, protecting operational budgets for teacher training and instructional materials, and reallocating resources toward health programs for the poor; by decentralizing responsibilities to universities and vocational schools, with increased powers to provinces and municipalities, through protection of allocations for the Public Assistance Scheme and the Voluntary Health Card System; and by redeploying health staff to rural areas. These programs are to be supported by an AsDB Social Sector loan amounting to B 15–25 billion over three years.
- A subsidy for urban bus and rail fares will be maintained to protect urban low-income workers.

## **VI. FURTHER OPTIONS**

The various social safety net initiatives contained in the Fund-supported programs for the three countries should help in mitigating the adverse social impact of the economic crisis. The social impact may even turn out to be larger than currently projected. This could reflect uncertainties with regard to the extent of economic downturn as well as its impact on the living standard of the poor. Thus, it would be worthwhile to assess possible alternatives for a strengthening of the social safety nets. However, the need for government-provided social safety nets would be lessened to the extent that workers are prepared to accept wage cuts to unemployment. As noted above, in implementing and designing social safety nets, work

disincentive effects have to be avoided to the extent possible, and these arrangements should have a clear time horizon for their elimination. The following options could be considered.

**In Indonesia:**

- A continuous provision of subsidies for food and other items is likely to be fiscally unsustainable and result in distortions in consumption and production. Richer households consume significantly more of most of these items than low-income households, implying that the former will receive a larger subsidy in absolute terms. Household expenditure data show that richer households consume 10 times more imported sugar than lower-income households and 52 times more wheat flour. In view of this, subsidies should be confined to goods with “inferior-good” characteristics, that is, those which have negative or low income elasticities (e.g., brown sugar, coarser varieties of rice, and generic medicines). The advantage of such a scheme is that it would shield the most vulnerable while containing budgetary costs. In addition, it would be critical for the authorities to maintain an effective system of food distribution, either on its own or with the assistance of the private sector, including NGOs.
- Further expand the community-based public works programs. Such programs are self-targeted. However, care needs to be taken to ensure that wages in these programs

are close to the prevailing wage for the unskilled workers. This would ensure that wage costs are not excessive so as to render the program ineffective.<sup>19 20</sup>

**In Korea:**

- Unemployment benefits could be extended to individuals in enterprises with less than five workers.<sup>21</sup> Over 5 million workers (about 40 percent of private employment) are employed in these enterprises and thus remain outside the coverage of the unemployment benefit scheme.<sup>22 23</sup>

---

<sup>19</sup>A study of 26 public-works programs in Subbarao and others (1997) finds that wage cost constituted 20 percent to 60 percent of the total cost of the programs (between 40 percent and 60 percent for Asian countries), with an average share of wage cost of 45 percent.

<sup>20</sup>Introducing an unemployment insurance scheme in Indonesia or Thailand as part of the social safety net does not appear to be a viable option because of the time it will take to design and implement such a scheme and because of the large share of the informal sector in the economy. Over the medium and long term, such an extension of the social policy instruments will need to be explored.

<sup>21</sup>The expansion of coverage to workers in smaller enterprises (more than 10 but fewer than 30 workers) effective January 1998 will start to yield benefits to these workers only if they become unemployed after July 1, 1998. Furthermore, benefits to workers in enterprises with between 5 and 10 employees will become payable after January 1, 1999.

<sup>22</sup>Recent data indicate that of the 3,323 firms that were declared insolvent in January 1998 most were small and medium-sized. This would suggest that a significant number of the newly unemployed may come from these enterprises.

<sup>23</sup>Further, self-employed are not covered.

- Although eligibility for workers in smaller enterprises has been expanded by requiring only six months of contributions, these workers, because they have entered the system just recently, will receive benefits for only two months if they become unemployed in 1998. This may prove insufficient as a safety net and provision may need to be made for increased claims on social assistance programs.
- To cater to those whose unemployment benefits are being exhausted or those who are not covered, the social programs may need to be expanded. Alternatively, the government could consider public works programs. In Chile, at their peak, public works programs provided temporary benefits to 11 percent of the labor force and cost 1.4 percent of GDP.
- Over the medium and long term, the government will need to overhaul the existing social policy instruments and adapt them to the changing labor market situation of a permanently higher unemployment rate.

**In Thailand:**

- Further expansion of public works programs should be the principal vehicle for strengthening the social safety net.

## VII. CONCLUSIONS

The Fund-supported programs in Indonesia, Korea and Thailand include measures to shelter the poor from the adverse effects of the economic crisis and the adjustment measures. New initiatives have been taken and existing social policy instruments have been adapted. The challenge has been to establish cost-effective and fiscally sustainable safety nets that do not create large labor market disincentives.

The social impact, however, may turn out to be larger than currently projected, reflecting uncertainties with regard to the economic downturn as well as its effect on the living standard of the poor. It is thus worthwhile to assess a number of cost-effective alternatives for expanding social safety nets presented above.

## Existing Social Policy Instruments

Component of the System	Korea	Indonesia	Thailand
A. Old age, disability, survivor benefits	<p><b>Coverage:</b> Social insurance system covering employed in firms with 5 or more workers; agricultural workers aged 18–59; voluntary coverage for those employed in firms with fewer than 5 workers and self-employed. Separate systems for public employees, the military, and private school teachers.</p> <p><b>Funding:</b> 6 percent of payroll paid by employers and 3 percent of wage earnings paid by employees. Voluntarily insured persons contribute 9 percent of wage earnings. The government pays partial cost of administration and programs for insured farmers and fishermen.</p> <p><b>Eligibility:</b> Old-age pensions: 60 years of age, insured 20 years or more. Disability: insured at least 1 year, no longer working and disability occurred during the insured period. Survivor benefits: spouse or child or parent of insured or pensioner.</p> <p><b>Benefits:</b> Old-age: Nontaxable. Adjusted for price changes. 2.4 times the sum of average of monthly earnings of all insured in the preceding year and the average monthly earnings of the retiree over the entire contribution period. For each insured year in excess of 20, monthly pension increases by 5 percent. Total disability: the same as old-age; partial disability benefits reduced up to 40 percent. Survivor pension: 60 percent of insured's pension for 20 or more contributing years, 50 percent for 10–19 contributing years, 40 percent for 9 or fewer contributing years. Maximum lump-sum death benefit 4 times the insured's persons monthly earnings. Lump-sum benefit option for all benefits.</p>	<p><b>Coverage:</b> Provident fund system paying lump-sum benefits only, covering firms with 10 or more employees or a payroll above Rp 1 million per month. Coverage is being extended gradually to smaller firms and seasonal workers. Special systems for nonmilitary public employees and the military.</p> <p><b>Funding:</b> Employers pay 3.7 percent of payroll, plus 0.3 percent of payroll for death benefit. Insured persons pay 2 percent of earnings. Government provides no additional funding.</p> <p><b>Eligibility:</b> Old-age pensions: 55 years of age, 66 months more of contributions. Disability benefit: total incapacity for work and age under 55. Survivor benefits: deceased was insured and under age 55 at the time of death.</p> <p><b>Benefits:</b> Old-age, disability and survivor benefits: Lump sum equal to total employee and employer contributions paid in, plus accrued interest. Death benefit equal to Rp 1.2 million plus amount accumulated in the provident fund, payable if death occurs before age 55.</p>	<p><b>Coverage:</b> Limited social insurance system covering firms with 10 or more employees. From September 2, 1998, voluntary coverage for self-employed will become available. Separate systems for civil servants and private school teachers.</p> <p><b>Funding:</b> Employer pays 1.5 percent of payroll and insured person pays 1.5 percent of wages. Government provides annual grant equal to 1.5 percent of covered wages; wage range for contribution purpose B 1,650–15,000.</p> <p><b>Eligibility:</b> New system. To be payable starting in 1998.</p> <p><b>Benefits:</b> Disability: same as sickness benefits. A person must have received the sickness benefit for one year. Permanent disability: 50 percent of prior wage for life. Survivor benefits/funeral grant: 100 times the minimum daily wage.</p>

## Existing Social Policy Instruments

Component of the System	Korea	Indonesia	Thailand
B. Sickness and maternity	<p>The system covers all permanent residents, except government and private school employees and those under Medical Aid program. Separate systems for public employees and private school teachers. Funding: employer pays 1-4 percent (average 1.52 percent) of standard monthly wage; employees pay also 1-4 percent (average 1.52 percent) of standard monthly wage. Self-employed contribute based on income and assets. Government pays a part of the benefits and all administrative costs.</p>	<p>Social insurance system (medical benefits). Coverage being gradually extended to various industries. Employees with more comprehensive benefits exempt from coverage. Employer pays 6 percent of payroll for married employees and 3 percent for single employees. Insured persons and government bear no cost. Eligibility is determined by the current coverage with medical benefits. Medical benefits for employees and dependents last 2 months in case of hospitalization and more in special cases.</p>	<p>Limited insurance system with coverage and funding as for old-age pensions. Sickness benefit eligibility: 90 days of contribution in 15 months before date of treatment.</p>
C. Work-related injury	<p>Mandatory public insurance, covering all industrial firms with 5 or more employees. Separate system for public employees. Employer pays 0.6 percent to 29 percent of the payroll, depending on the "industry risk". Average contribution is 1.68 percent. Employees pay no contribution. Government pays the cost of administration. Temporary disability benefits pay 70 percent of average earnings, payable after 3-day waiting period for up to 24 months. Annual adjustment for wage changes. For total disability, annual pension between 138 and 329 days average earnings or lump sum (55-1,474 days' earnings) according to degree of disability.</p>	<p>Social insurance system covering firms with 10 or more employees. Voluntary coverage available. Special system for public employees. Employer bears the whole cost, 0.24 to 1.74 percent of the payroll according to "industry risk". Maximum earnings for benefit purpose is Rp 1,000 per day. Temporary disability benefit pays 100 percent of earnings for first 4 months, 75 percent for second 4 months and 50 percent of earnings thereafter. Permanent disability benefit varies with the degree of disability with maximum 70 percent of previous monthly earnings times 60.</p>	<p>Compulsory public insurance covering firms with 10 or more employees, but excluding workers in agriculture, fishing, and a number of other sectors. Funding: employer pays 0.2-2 percent of payroll according to "industry risk." Temporary disability: 60 percent of wages, payable up to 52 weeks.</p>
D. Unemployment insurance	<p><i>Coverage and eligibility.</i> Until end-1991, it covered employees under the age 60 in firms with more than 30 workers. The coverage was extended in January 1998 to firms with at least 10 workers. To qualify, employees must be employed for at least 12 months during 18 months before involuntary unemployment occurred. Waiting period, before benefits may be received, is two weeks. Duration varies from 1 to 7 months, depending on the worker's age and the length of time insured. Benefit, financed by 0.6 percent payroll tax shared between workers and employers, is equal to 50 percent of the average worker's daily salary during the preceding 12 months.</p>	<p>No formal unemployment insurance exists.</p>	<p>No formal unemployment insurance exists.</p>

## Existing Social Policy Instruments

Component of the System	Korea	Indonesia	Thailand
E. Social assistance	<p>Korea's social assistance system consists of two components: (i) public assistance (livelihood protection, medical aid, veteran relief, disaster relief); and (ii) social welfare services (for the disabled, elderly, children, women and the mentally handicapped). <i>Public assistance</i> provides services and financial assistance to needy people with low incomes. Disaster relief programs provides a variety of subsidies to disaster victims. Veteran relief program provides assistance to those injured in wars and survivors. The main livelihood aid protection program targets persons who cannot earn a living because of the inability to work as a result of physical disability, disease, old age, and other reasons. Three types of assistance: home care (for families with members unable to work due to disabilities, aged over 65, children under 18, pregnant women, and women over 50), institutional care (for people under various welfare institutions, such as foster homes), and self-support care (for people who are capable of work but with very low incomes). <i>Eligibility criteria</i> for all three types of assistance are per person income (W 200,000 per month or less for the first two programs and W 210,000 per month or less for self-support recipient, in 1996) and property value of the household. In addition, Korea has the following <i>social welfare services</i> programs focused on maintaining <i>family welfare</i> of the disadvantaged groups: (i) programs for elderly; (ii) child welfare programs; (iii) child education programs delivered via "educate centers" (essentially nursing and preschool education programs); and (iv) women welfare programs.</p>	<p>Since 1993, the Indonesian government has launched special policies and programs for the poor. Currently, the main initiatives are the <i>Inpres Desa Tertinggal (IDT)</i> program (financial assistance by virtue of presidential instructions to less developed villages), with the complementary Prosperous Family Saving (<i>Takesra</i>) initiative and the Prosperous Family Credit (<i>Kukesra</i>) initiative. The philosophy of social assistance is that poor families should be provided with basic technology, facilities for saving and capital formation, and moderate government financial support, in order to make family units the basis for micro-enterprise development. The <i>IDT</i> program, which was implemented in April 1994, has 3 basic components: an annual government grant of Rp 20 million that is given to each less developed village for three consecutive years; the provision of facilitators to help village self-help groups to develop microenterprises; the building of rural physical infrastructure in the amount of Rp 100–130 million per village during 1994–2004. <i>Takesra</i> and <i>Kukesra</i> educate poor families on the importance of savings, help to build up collateral for loans, implement village-level savings and loan cooperatives, and provide training for microenterprise skills. These programs are supported both by government funds and by the "Jimbaran group" of Indonesian industrialists. The initial capital for these initiatives was Rp 23 billion, and it was planned to benefit 11.5 million poor families in non-IDT villages.</p>	<p>No programs.</p>

Sources: United States, Social Security Administration (1997), OECD (1996), Ministry of Health and Welfare of the Republic of Korea (1996), and Tjiptoherijanto (1997).

Notes: The first Social Security Law in Thailand was passed in 1990, and revised in 1994. This law establishes unemployment insurance, but implementation is pending Royal Decree. The first law on old-age pensions in Indonesia was passed in 1951 (provident fund), and the current law dates back from 1977. Sickness and maternity benefits laws date back from 1957 and 1939, respectively, and current laws are from 1992. The first law in Korea was passed in 1973, and amended recently in 1995.

## REFERENCES

- Ahuja, Vinod, and others, 1997, *Everyone's Miracle? Revisiting Poverty and Inequality in East Asia* (Washington: World Bank).
- Chu, Ke-young, and Sanjeev Gupta, eds., 1998, *Social Safety Nets: Issues and Recent Experiences* (Washington: International Monetary Fund).
- Heller, Peter S., 1997, "Aging in the Asian 'Tigers'—Challenges for Fiscal Policy," IMF Working Paper 97/143 (Washington: International Monetary Fund).
- Huppi, Monika, and Martin Ravallion, 1991, "Sectoral Structure of Poverty During an Adjustment Period: Evidence for Indonesia in the Mid-1980s," *World Development*, Vol. 19, pp. 1653–78.
- Indonesia, 1993, *National Socio Economic Survey (SUSENAS)* (Jakarta).
- , 1984, *National Socio Economic Survey (SUSENAS)* (Jakarta).
- Korea, Republic of, National Bureau of Statistics, Economic Planning Board, 1996, *Annual Report on the Family Income and Expenditure Survey* (Seoul).
- Ministry of Health and Welfare of the Republic of Korea, 1996, *Major Programs on Health and Welfare* (Seoul).
- National Statistical Office, 1992, *Report of the 1992 Household Socio-Economic Survey* (Bangkok).
- OECD, 1996, *Economic Surveys: Korea, 1995–96* (Paris).
- Paxton, Christina, 1992, "Using Weather Variability to Estimate the Response of Savings to Transitory Income in Thailand," *American Economic Review*, Vol. 82, No. 1, pp. 15–33.
- Sahn, D.E., P. Dorosh, and S. Younger, 1996, "Exchange Rate, Fiscal and Agricultural Policies in Africa: Does Adjustment Hurt the Poor?," *World Development*, Vol. 24 (April), pp. 719–47.
- Song, Byung-Nak, 1997, *The Rise of the Korean Economy* (Oxford University Press: Hong Kong).
- Subbarao, K., and others, 1997, *Safety Net Programs and Poverty Reduction: Lessons from Cross-Country Experience* (Washington: World Bank).

Thorbecke, Erik, and Hong-San Jung, 1996, "A Multiplier Decomposition Method to Analyze Poverty Alleviation," *Journal of Development Economics*, Vol. 48, No. 2, pp. 279–300.

Thorbecke, Willem, 1998, *The Indonesian Economic Crisis: Social Costs and Policy Implications*, mimeographed (Fairfax, VA).

Tjiptoherijanto, Prijono, 1997, "Poverty and Inequality in Indonesia at the End of the 20th Century," *Indonesian Quarterly*, Vol. 25, No. 3 (Third Quarter), pp. 251–275.

Townsend, Robert, 1995, "Financial Systems in Northern Thai Villages," *Quarterly Journal of Economics*, November, pp. 1011–1046.

United Nations Development Programme, 1996, *Human Development Report* (New York: Oxford University Press).

United States, Social Security Administration, 1997, *Social Security Programs Throughout the World—1997* (Washington).

Whang, Seong-Hyeon, and Joung-Woo Lee, 1997, *The Problems of Income Distribution and Related Policy Issues in Korea*, mimeographed (Seoul).

World Bank, 1997, *World Development Indicators* (Washington: World Bank).